

COUNTY OF TULARE  
RESOURCE MANAGEMENT AGENCY



5961 South Mooney Boulevard  
Visalia, CA 93277

**Dunn Asphalt and Concrete Batch Plant**

Draft Environmental Impact Report  
SCH# 2019011039

December 2019

Prepared by:  
County of Tulare Resource Management Agency  
Economic Development and Planning Branch  
Environmental Planning Division



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Dunn Asphalt and Concrete Batch Plant

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## Executive Summary

This Draft Environmental Impact Report (Draft EIR, DEIR, or EIR) concludes that the proposed Dunn Asphalt and Concrete Batch Plant Project (“Project” or “Proposed Project”) could result in a ***Significant and Unavoidable Impact*** to the Air Quality resource.

The proposed Project includes the development of an asphalt/ concrete batch plant on an approximately 20-acre site at 7763 Avenue 280, Visalia, CA, which is located along the south side of Avenue 280, west of State Route 99 (SR 99) and east of Road 76 in an unincorporated area of Tulare County. The Applicant is pursuing a Special Use Permit (PSP 18-049) through Tulare County for the following: 1) a concrete batch plant that would produce 100,000 cubic yards of concrete per year; 2) a hot-mix asphalt (HMA) batch plant that would produce 150,000 tons of HMA per year; and 3) recycling of 30,000 cubic yards per year of concrete and asphalt to be crushed into recycled base.

The DEIR has been prepared consistent with the California Environmental Quality Act (CEQA). Its intent is to inform the public and the Tulare County Planning Commission and Tulare County Board of Supervisors of the potential environmental impacts the proposed Project could have on resources as specified in the CEQA Guidelines. This DEIR, in its entirety, addresses and discloses potential environmental effects associated with construction and operation of the proposed Project, including direct, indirect, and cumulative impacts in the following resource areas:

Aesthetics	Mineral Resources
Agriculture and Forestry Resources	Noise
Air Quality	Population and Housing
Biological Resources	Public Services
Cultural Resources	Recreation
Energy	Transportation/Traffic
Geology and Soils	Utilities-and Service Systems
Greenhouse Gas Emissions	Tribal Cultural Resources
Hazards and Hazardous Materials	Wildfire
Hydrology and Water Quality	Mandatory Findings of Significance
Land Use and Planning	

Although the Mandatory Findings of Significance is not a resource per se, it is required as it essentially provides a summary conclusion of the Project’s potential on Long Term Impacts; Cumulative Impacts; and Impacts to Species, Historical Resources, and on Human Beings. It is at this discussion where the EIR concludes that there would be no significant adverse environmental impacts as a result of this Project.

CEQA requires that local government agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An EIR is a public disclosure document designed to provide local and state governmental agency decision makers with an objective analysis of potential environmental consequences to support



informed decision-making. This DEIR (**State of California Clearinghouse # 2019011039**) has been prepared by Tulare County in accordance with CEQA Guidelines Sections 15120 through 15131 and Section 15161 regulating EIRs to i) evaluate the environmental consequences of the Project, ii) to discuss alternatives to the proposed Project, and iii) to propose mitigation measures that will offset, minimize or avoid identified significant environmental impacts. This document focuses on issues determined to be potentially significant as discussed in the Initial Study and the public scoping process completed for this Project, as well as comments received on the Notice of Preparation (NOP) circulated by Tulare County in January 2019. Pursuant to CEQA Guidelines Section 15082, the NOP for the proposed Project was circulated for review and comment on January 18, 2019, and circulated for a 30-day comment period ending February 19, 2019. A Scoping Meeting was duly noticed and held on January 31, 2019, during the NOP comment period, at Tulare County RMA Main Conference Room at 5961 South Mooney Boulevard, Visalia, CA to solicit input on the scope of the EIR. No comments were received during this meeting (see Appendix “G” of this DEIR).

## **PROJECT DESCRIPTION**

The Applicant is pursuing a Special Use Permit through Tulare County for the following: 1) permanent establishment of a concrete batch plant on the proposed site; 2) recycling of concrete and asphalt; and 3) permanent establishment of an asphalt batch plant on the proposed site.

## **PROJECT LOCATION**

The proposed Project will be located in the central San Joaquin Valley, approximately 40 miles southeast of the City of Fresno and 60 miles northwest of the City of Bakersfield. The proposed Project will be located at 7763 Avenue 280, Visalia, CA, on the south side of Avenue 280 and east of Road 76. The site is approximately 0.65 miles west of State Route 99. The approximately 20-acre site is located on Tulare County APN 119-010-039. The site is currently zoned AE-40 (Extensive Agriculture – 40 Acre Minimum) and is within the Goshen 7.5 Minute USGS Quadrangle. The proposed Project site lies within Section 8, Township 19S, Range 24E, MDB&M.

The coordinates of the proposed Project site are:

Latitude: N 36° 17' 52.80"  
Longitude: W 119° 24' 00.08"

## **PROJECT ELEMENTS**

The proposed Project includes: a HMA batch plant and concrete batch plant (see descriptions below); areas for piles of recycled asphalt and aggregate materials; an existing approximate 9,000 square foot shop/warehouse building; an existing approximate 900 square foot office (a converted residential building); automobile and truck parking areas; and storm water basin (see Figure 2-3). At full capacity, the proposed Project would produce and distribute up to 150,000 tons of asphalt per year (average of 20 loads per day/120 loads per week/6,000 loads per year) and up to 100,000 cubic yards of concrete per year (average of 40 loads per pay/ 200 loads per week/10,000 loads per year).



Asphalt Production Process: The raw materials for the proposed Project operations will be brought in from Orosi (from an Applicant-owned site) and consists of 3/8"- 5/8" crushed gravel. The gravel will be dumped on a conveyor and sent to the on-site stock piles. Recycled asphalt paving (RAP) will also be delivered to the site and crushed to a 3/8"- 5/8" size, then moved to stock piles on the north end of the facility. The facility also accepts recycled rubble and asphalt grindings, which are further ground up to a specified thickness and used in the production of new asphalt. The aggregate will be loaded into the mixer, dried, mixed with oil and RAP, then placed on a conveyor to be sent into the storage silos. Silos are programmed to release a specific weight of asphalt into the trucks positioned under the silos.

The asphalt plant (while at full capacity) will operate up to six days per week, with a majority of the trips occurring between 7:00 a.m. – 4:00 p.m. An average of 15 employees will be on-site at the facility at any given time and days of operation. The site will include two types of truck trips consisting of materials import and asphalt export. When operating at maximum capacity, the proposed Project will generate up to 138 truck trips (combined import and export) per day, with an estimated 106 round-trip trucks during the A.M. Peak Hour and 17 trucks entering the site during P.M. Peak Hour and 35 exiting the site during P.M. Peak Hour. The proposed Project will utilize one access/egress point from Avenue 280. A more in depth analysis of the traffic flow to/from the site is provided in Section 3.17 – Traffic/Transportation. Gencor's Ultraplant is a fuel efficient, environmentally clean and low maintenance asphalt processing plant. Gencor's plant provides a positive volatile capture and recovery system that eliminates blue smoke, and asphalt odors from the process and feeds them to the combustion process as fuel. The combustion system engineered on this equipment also achieves extremely low NOx emissions to reduce air pollutants from the operations.

Propane: The proposed Gencor's Ultraplant will ultimately be fueled using trucked-in liquefied propane gas. The applicant will use an existing 30,000 gallon above-ground propane tank on-site that provides fuel to the Gencor plant, crushing plant, and asphalt storage silo. The propane tank is refilled on a routine basis using a propane tanker truck. Fuel is pumped directly into the propane tank. A drip pan will be used during refueling to avoid spills to the surface.

Electricity: The proposed Project currently and will continue to utilize electricity provided by Southern California Edison.

Asphalt Oil: The proposed project will utilize a 60,000 gallon above-ground asphalt oil storage tanks on site. The oil is used internally within the Gencor plant as a mixing agent for the dried aggregate. Delivery and refilling the tanks is performed by a tanker truck and pumped directly into the holding tanks. A drip pan will be used to avoid spills to the surface during the refilling process.

Fuel / Diesel: The proposed Project will utilize two 12,000 gallon diesel fuel above-ground tank on site. This fuel tank will be used to fuel on-site equipment, water trucks, etc. Delivery and refilling the tank is performed by a tanker truck and pumped directly into the holding tank. A drip pan will be used to avoid spills to the surface during the refilling process.



Dust Control: To mitigate potential dust from the piles, the site will include automatic sprinklers that will be directed onto the piles. The sprinkler system will be used to keep the dust down during use of each of the piles for drop off and loading. The site will also have a water truck on-site to be utilized for internal road dust control. There are two existing wells on-site. One residential well to be used for the future office building, and an agricultural well that will be used for the sprinkler system and water truck (dust control).

Storm Drainage: On-site storm drainage is routed to a basin located at the southwest corner of the site. Wastewater from the office building will be directed to an on-site septic system.

Office/Warehouse Building: The existing residential structure located at the northeast corner of the site will be demolished and replaced with a new 20,000 square foot office/warehouse building. The building will include work areas for 10 new employees, a reception area, restroom facilities, a kitchen area, a warehouse/equipment storage area and landscaping in the immediate vicinity.

Landscaping/Aesthetics: The Project will include silos approximately 50' in height but will be setback no less than approximately 200 feet from Avenue 280 and screened with a berm along the length of the northern, western, and southern property lines with vegetation (trees and shrubs) at the top of the berm to effectively minimize line-of-sight views from the public right-of-way. As a project condition a landscaping plan shall be approved by the County prior to issuance of any grading or building permits.

## **PROJECT OBJECTIVES**

- Tulare County General Plan Policy LU-5.1 encourages a wide range of industrial development activities in appropriate locations to promote economic development, employment opportunities, and provide a sound tax base. The proposed Project includes industrial development within an area allowable by a Special Use Permit.
- Tulare County General Plan Policy LU-5.3 requires adequate landscaping and screening of industrial storage areas to minimize visual impacts and enhance the quality of the environment. The proposed Project includes provisions or landscaping to obstruct views from surrounding areas.
- Tulare County General Plan Policy LU-5.4 encourages the infill of existing industrial areas and ensure that proposed industrial uses will not result in significant harmful impacts to adjacent land uses. The site was previously used as a cotton gin facility and the proposed asphalt and concrete batch plant facility and environmental impacts, with the exception of Air Quality resources related to material transport, are, or can be reduced to, less than significant.
- Tulare County General Plan Policy LU-5.5 requires that industrial development be located where there is access from collector or arterial roads, and where industrial/heavy commercial traffic is not routed through residential areas with uses not compatible with such traffic. The Project proposes to be located in an area that contains only sparse rural



housing and is near a major highway. Access to and from the site for heavy duty trucks will be on roadways that are planned for such use.

- By the end of FY 2005, the goal was to ensure that the diversion rate for nonhazardous solid waste is greater than 40 percent. “Requirements for reducing the generation of solid waste are contained in Executive Order 13101. For recycling and waste prevention, each agency is required to establish a goal for diversion of solid waste from landfilling or incineration.”<sup>1</sup> “The Legislature and Governor Brown set an ambitious goal of 75 percent recycling, composting or source reduction of solid waste by 2020 calling for the state and the Department of Resources Recycling and Recovery (CalRecycle) to take a statewide approach to decreasing California’s reliance on landfills.”<sup>2</sup> According to CalRecycle in their 2014 survey, *2014 Generator-Based Characterization of Commercial Sector Disposal and Diversion in California*, concrete and asphalt paving make up about 1.0% of disposed waste material and 0.7% of the overall total generation of waste material by the commercial sector in the State of California.<sup>3</sup> In addition there is the added cost for disposing concrete that results in greater tipping fees. The air pollutants from concrete mixing are also of special concern to the United States Environmental Protection Agency (U.S. EPA).<sup>4</sup> Therefore, the proposed Project’s reuse of recycled concrete and asphalt materials is a benefit.
- The proposed Project is intended to implement Dunn’s strategic business plan by planning, designing, constructing, and operating a facility which is economically, technologically and environmentally feasible.

The Project site area was previously used as a cotton gin facility. To minimize land cost and utilize previously developed land, thereby minimizing impacts to surround agricultural uses, the Project is proposed on the existing site. Initial operational costs would also be minimized on the Project site as the site has been previously improved with shop and office buildings. Services on another site would increase operational costs.

## TULARE COUNTY OBJECTIVES

Tulare County’s General Plan Policies that are applicable to the proposed Project’s purpose and objectives are included in each CEQA Checklist Resource chapter contained in Chapters 3-1 thru 3-20. One hundred six (106) General Policies apply to this Project; following is a summary of some of those policies:

- AG-1.1 Primary Land Use
- AG-1.6 Conservation Easements

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<sup>1</sup> U.S. Army Corps of Engineers, Selection of Methods for the Reduction, Reuse, and Recycling of Demolition Waste. Page 1-2. [https://www.wbdg.org/FCF/DOD/UFC/ARCHIVES/ufc\\_1\\_900\\_01\\_2002.pdf](https://www.wbdg.org/FCF/DOD/UFC/ARCHIVES/ufc_1_900_01_2002.pdf). Accessed July 2019.

<sup>2</sup> CalRecycle. California’s 75 Percent Initiative Defining the Future. <http://www.calrecycle.ca.gov/75percent/>. Accessed July 2019.

<sup>3</sup> CalRecycle. 2014 Generator-Based Characterization of Commercial Sector Disposal and Diversion in California. Table 32. Page 51. <https://www2.calrecycle.ca.gov/WasteCharacterization/PubExtracts/2014/GenSummary.pdf>. Accessed July 2019.

<sup>4</sup> U.S. Environmental Protection Agency Guideline 427/09. Concrete Batching.



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HS-5.9	Floodplain Development Restrictions



HS-5.11	Natural Design
HS-6.1	New Building Fire Hazards
HS-6.5	Fire Risk Recommendations
HS-6.7	Water Supply System
HS-6.8	Private Water Supply
HS-7.1	Coordinate Emergency Response - Services with Government Agencies
HS-7.2	Mutual Aid Agreement
HS-8.2	Noise Impacted Areas
HS-8.3	Noise Sensitive Land Uses
HS-8.4	Airport Noise Contours
HS-8.6	Noise Level Criteria
HS-8.11	Peak Noise Generators
HS-8.13	Noise Analysis
HS-8.14	Sound Attenuation Features
HS-8.16	State Noise Insulation
HS-8.18	Construction Noise
HS-8.19	Construction Noise Control
LU-5.1	Industrial Developments
LU-5.3	Storage Screening
LU-5.4	Compatibility with Surrounding Land Use
LU-5.5	Access
LU-7.4	Streetscape Continuity
LU-7.6	Screening
PF-4.14	Compatible Project Design
PFS-2.3	Well Testing
PFS-3.1	Private Sewage Disposal Standards
PFS-3.2	Adequate Capacity
PFS-4.3	Development Requirements
PFS-4.4	Stormwater Retention Facilities
PFS-4.5	Detention/Retention Basins Design
PFS-4.7	NPDES Enforcement
PFS-5.3	Solid Waste Reduction
PFS-5.4	County Usage of Recycled Materials and Products
PFS-5.8	Hazardous Waste Disposal Capabilities
PFS-7.1	Fire Protection
PFS-7.2	Fire Protection Standards
PFS-7.3	Visible Signage for Roads and Buildings
PFS-7.5	Fire Staffing and Response Time Standards
PFS-7.6	Provision of Station Facilities and Equipment
PFS-7.8	Law Enforcement Staffing Ratios
PFS-7.9	Sheriff Response Time
PFS-7.12	Design Features for Crime Prevention and Reduction
SL-1.1	Natural Landscapes
SL-1.2	Working Landscapes
TC-1.13	Land Dedication for Roadways and Other Travel Modes



TC-1.14	Roadway Facilities
TC-1.15	Traffic Impact Study
TC-1.16	County Level Of Service (LOS) Standards
WR-2.1	Protect Water Quality
WR-2.2	National Pollutant Discharge Elimination System (NDPES) Enforcement
WR-2.3	Best Management Practices (BMPs)
WR-2.4	Construction Site Sediment Control
WR-2.5	Major Drainage Management
WR-2.6	Degraded Water Resources
WR-2.8	Point Source Control
WR-3.3	Adequate Water Availability
WR-3.5	Use of Native and Drought Tolerant Landscaping
WR-3.6	Water Use Efficiency
WR-3.10	Diversion of Surface Water

## **PROJECT BENEFITS**

As detailed in Chapter 2, the Project will result in multiple Project Benefits. The Project will provide the following public and private benefits to Tulare County.

- 1) The Project will produce construction materials to support roadway improvements and other construction projects in Tulare County.
- 2) The Project will create 15-20 new permanent jobs.
- 3) The Applicant will support, through monetary contributions, roadway improvements in the County of Tulare. Prior to Project approval, the mechanism for payment of a \$500,000 fair share payment shall be established (based on estimates by RMA- Public Works Engineering).
- 4) The Project includes diversion from landfills and recycling of 30,000 tons annually of asphalt and concrete.
- 5) The Project will implement one hundred six (106) Tulare County General Plan 2030 policies
- 6) The Project will provide aesthetic improvements through use of landscaping (trees and shrubs) along the Avenue 280 frontage, and along the length of the northern, western, and southern property lines, with a 5-year grow-out schedule to maturity.

## **SUMMARY OF CHAPTERS**

### ***Chapter 1 Introduction***

The County of Tulare is proposing the Hash Farms Subdivision Project to allow the development of the phased construction of 160 single family residential units and forty multi-family units over approximately 54 acres. Also proposed in the development is a 2.54 acre park. The proposed



Project lies within a portion of the NE ¼ of Section 26, Township 16S, Range 22E, M.D.B. & M. The site is currently zoned A (Agriculture) and R-1-7 (Single Family Residential) and as a part of the proposed Project, will be rezoned to R-1-7, R-1-6 and RM (Multi-family Residential).

Local Regulatory Context: The Tulare County General Plan Update 2030 was adopted on August 28, 2012. As part of the General Plan, an EIR and background report were prepared. The General Plan background report contained contextual environmental analysis for the General Plan. The 2015 -2023 Tulare County Housing Element was adopted on November 17, 2015, and certified by State of California Department of Housing and Community Development on December 9, 2015.

Identification of Potentially Significant Impacts: Indicates that the EIR must identify potentially significant impacts consistent with CEQA Guidelines Section 15002 (h).

Consideration of Significant Impacts: Indicates that the EIR must consider significant impacts consistent with CEQA Guidelines Section 15126.2.

Mitigation Measures: Indicates that the EIR is required to contain mitigation measures consistent with CEQA Guidelines Section 15126.4.

Environmental Review Process: Summarizes steps taken prior to release of the draft EIR such as the Notice of Preparation, Scoping Meeting, and comments received from persons and/or agencies in response to the Notice of Preparation.

## ***Chapter 2 Project Description, Objectives, and Environmental Setting***

As noted earlier, the Hash Farms Development Specific Plan is a proposed plan for development of a 200-unit residential subdivision (160 single-family units and 40 multi-family units) on a total of 54 acres, including a 2.54 acre park and 1.15 acre fenced stormwater basin. The proposed Specific Plan and “Memorandum of Understanding: Hash Subdivision Financing and Tax Sharing Plan” is provided in Appendix “H” of this DEIR.

In summary, Chapter 2 contains the following:

- **Project Location:** The proposed Project will be located at the northwest corner of Road 16 and Avenue 396, partially within the City of Kingsburg, Fresno County and Tulare County. The site is approximately one-half mile east of State Route 99 and approximately one-tenth of a mile south of State Route 201.
- **Vicinity of Project Site:** Generally, in the northwest quadrant of Tulare County and in the southeast portion of the City of Kingsburg, as shown in Figure 2-1.
- **Project Description (baseline conditions information pertinent to the proposed Project):** Describes the existing land use and the improvements proposed with the residential development.



- Project Objectives and Benefits: See pages ES-4 and ES-5, or Chapter 2, pages 2-5 and 2-6)
- Regulatory Setting: Applicable statutes, rules, regulations, standards, policies, etc. of the County of Tulare, local or special districts, utilities, and State and Federal governments.

### ***Chapter 3 Impact Analysis of Resources***

The CEQA Guidelines include a Checklist of resources that must be addressed in an EIR. These resources are listed on page ES-1. There are 20 specific Resources and Mandatory Findings of Significance discussed in detail in Chapter 3. The Resources are discussed in separate sections of Chapter 3 and each section is structured as follows:

- Summary of Findings;
- Introduction, including Thresholds of Significance;
- Environmental Settings;
- Regulatory Settings such as applicable Federal, State, and Local laws, statutes, rules, regulations, and policies;
- Impact Evaluation including Project Impacts, Cumulative Impacts, Mitigation Measures, and Conclusion;
- Definitions and Acronyms; and
- References.

Some resources required expertise to evaluate the Project's potential for impacts. As such, qualified experts prepared studies, evaluations, assessments, modeling, search results, etc. (studies/technical memoranda/search results; i.e.; supporting documents) to quantify and/or qualify potential resource impacts. The supporting documents are contained in Appendices "A" through "H". Among the studies are Appendix "A" includes "*Technical Memorandum Air Quality, Greenhouse Gases, and Energy Consumption for the Dunn Asphalt and Concrete Batch Plant;*" Appendix "B" includes "*Biological Evaluation Visalia Concrete/Asphalt Batch Plant Project;*" Appendix "C" includes "*Phase I Survey, 7763 Avenue 280, Visalia, Tulare County, California*" (that is, archaeological, historical, cultural, and tribal cultural resources; Appendix "D" includes "*Geology and Soils Report for Proposed Concrete and Asphalt Batch Plant;*" Appendix "E" includes "*Hydrology and Water Quality Report for Proposed Concrete and Asphalt Batch Plant;*" Appendix "F" includes "*Traffic Impact Study Proposed Concrete and Asphalt Batch Plant;*" Appendix "G" includes Agricultural Land Conversion Analysis for the Dunn Asphalt and Concrete Batch Plant; Appendix "H" includes Notice of Preparation, Public Scoping Meeting, and Agency Comment Letters Received.



#### ***Chapter 4 Summary of Cumulative Impacts***

A critically important component of an EIR is the Cumulative Impacts discussion. Chapter 5 discusses a Cumulative Impact Analysis under CEQA. Including Past, Present, Probable Future Projects; and a Summary of Cumulative Impacts. Whereas a project in and of itself may not result in an adverse environmental impact, its cumulative effects may. Therefore the CEQA Guidelines require a discussion of cumulative impacts per Section 15130. The Discussion of Cumulative Impacts defines cumulative impacts per Section 15355 - “Cumulative impacts” refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

With the exception of Air Quality, Greenhouse Gas Emissions, Biological, and Hydrological Resources, Chapter 5 defines Tulare County as the geographic extent of the impact analysis. The geographic area is considered the appropriate extent because:

- 1) The proposed Project is geographically located in Tulare County and City of Kingsburg and the County of Tulare is the Lead Agency; and
- 2) Tulare County General Plan and City of Kingsburg policies apply to the proposed Project.

The basis for the other Resource-specific cumulative impact analyses includes:

- Air Quality and Greenhouse Gas Emissions are based on the San Joaquin Valley Air Basin;
- Biological Resources are based on the San Joaquin Valley, the state of California, and the western United States;
- Hydrology is based on the Tulare County, the Tulare Lake Basin, and, the Tule Lake Sub-basin aquifers;
- Land Use Impacts are based on the County of Tulare 2030 General Plan; and
- Mandatory Findings of Significance are based on the San Joaquin Valley, the state of California, and the western United States

The Summary of Cumulative Impacts section discusses mitigable and immitigable impacts. Checklist Item criteria that would result in no impacts or less than significant impacts are discussed in the Chapter 3 and are not reiterated in Chapter 5. As noted in Chapter 5, there are no -Significant and Unavoidable Impacts; and Less Than Significant Impacts With Mitigation are summarized in Table 5-3 (Checklist Items with Less than Significant with Mitigation). There are a number of cumulative impacts that do not need mitigation; these impacts are listed in Table 5-4 (Checklist Items with Less Than Significant Impacts). Chapter 9 contains a complete list of Mitigation Measures to be implemented as part of the proposed Project. Chapter 5 also contains a No Impacts summary in Table 5-5 (Checklist Items with No Impacts).



## **Chapter 5 Alternatives**

CEQA Guidelines Section 15126.6 requires that a reasonable range of Alternatives to the proposed Project be discussed in the EIR. The proposed Project is the superior alternative. The conclusion contained in Chapter 6 is based on the criteria established for the site and the three reasonable Alternatives. The three Alternatives evaluated are:

- Alternative 1 – Reduced Density (Same Footprint)
- Alternative 2 – Increased Density (Smaller Footprint)
- Alternative 3 – No Build / No Project

The proposed Alternatives were analyzed based on five evaluation criteria which include each of the objectives of the Project and the assessment of the potential environmental impacts. Each Alternative considered did not meet all the evaluation criteria, as identified in Table 5-1 (Alternatives Evaluation), contained in Chapter 5. The following is a summary of the advantages and disadvantages of each Alternative:

<b>Table ES-1. Alternatives Comparison</b>	
<b>Alternative No. 1 Advantages and Disadvantages</b>	
<b>Advantages</b>	<b>Disadvantages</b>
Slightly less impacts to air quality/GHG, noise, traffic, water use, utilities, and population/housing.	Lack of diversity of housing products.
More attractive product to higher-end estate type housing buyers.	Economic feasibility (e.g., housing affordability) in question due to potential lack of higher-end buyers.
<b>Alternative No. 2 Advantages and Disadvantages</b>	
<b>Advantages</b>	<b>Disadvantages</b>
Slightly less impacts to air quality/GHG, noise, traffic, water use, utilities, and population/housing.	Does not provide for comprehensive planning of the specific plan area.
More lower/moderate income housing.	Lack of diversity of housing products.
Less impacts to agriculture, biological and cultural resources.	Lack of continuity with existing neighborhoods.
<b>Alternative No. 3 Advantages and Disadvantages</b>	
<b>Advantages</b>	<b>Disadvantages</b>
No environmental impacts beyond baseline conditions.	Does not meet any project objectives or project-specific elements.

As discussed in Alternatives 1 and 2, each of the Alternatives could result in more adverse environmental impacts than the proposed Project as specified on the CEQA resources checklist. Therefore, the proposed Project is the environmentally superior alternative.

Environmental impacts associated with each of the alternatives presented compared to the Preferred Alternative are shown in Chapter 6 Alternatives in Table 6-1 Impacts of Alternatives



Compared to the Proposed Project. Table 6-2 is a matrix comparing each Alternative's and the Preferred Alternative's abilities to achieve the Evaluation Criteria.

### ***Chapter 6 Economic, Social, & Growth Inducing Impacts***

This Chapter discusses the Economic, Social, and Growth Inducing effects of the Project. It contains Table 6-1 which provides the CEQA requirements and a summary of the impact analysis as follows:

- **Economic Effects** - The proposed Project will not result in negative impacts to the region. It will result in increases in economic benefits to the region in the short term and long term. The Project will result in temporary construction-related jobs. Long term economic benefits include payment of property taxes as well as on-going income expenditures of the residents of the new housing in and around Kingsburg (such as groceries, gasoline, household items, etc.).
- **Social Impacts** - The proposed Project would not result in disproportionate environmental effects on minority populations, low income populations, or Native Americans. The proposed Project does not pose any adverse environmental justice issues that would require mitigation. The project would improve the availability of quality residential housing in the area.
- **Growth Inducing Effects** - The proposed Project would not result in significant growth inducing impacts. The Project site is already in the Kingsburg Sphere of Influence and is planned for residential development. The growth and associated population increase is in accordance with the housing parameters set forth in the City of Kingsburg General Plan and the Tulare County General Plan in reaching their RHNA goals.

The overall conclusion contained in Chapter 7 is implementation of the proposed Project will result in ***Less Than Significant*** environmental impacts, either individually or cumulatively, caused by either economic, social, or growth inducing effects.

### ***Chapter 7 Immitigable Impacts***

This discussion provides determinations consistent with CEQA Guidelines Sections 15126.2 (b) Environmental Effects That Cannot Be Avoided, 15126.2 (c) Irreversible Impacts, and Statement of Overriding Considerations.

This Project will not result in significant and unavoidable impacts. All impacts have been found to be less than significant, or have been mitigated to a level considered less than significant. Based on the analysis contained in the No Environmental Impacts That Cannot Be Avoided and the No Irreversible Impact sections contained in Chapter 8, a Statement of Overriding Considerations is not necessary. The Project's merits and objectives are discussed in the Project Description and are found to be consistent with the intent of the County of Tulare and its 2030 General Plan. As noted earlier, there are one hundred fourteen (114) General Plan Policies that apply to this Project. Chapter 3 of this document provides a complete list of applicable policies for the specific Resource



item discussed. Thus, the Project's benefits would outweigh any unavoidable and inmitigable impacts to warrant a Statement of Overriding Considerations.

### ***Chapter 8 Mitigation Monitoring and Reporting Program***

A summary of the Mitigation Monitoring and Reporting Program is contained at the end of this Executive Summary and in its entirety in Chapter 8. CEQA Section 21081.6 requires adoption of a reporting or monitoring program for those measures placed on a project to mitigate or avoid adverse effects on the environment. The mitigation monitoring and reporting program is required to ensure compliance during a project's implementation. Consistent with CEQA requirements, the Mitigation Monitoring and Reporting Program contained in this EIR include the following elements:

- **Action and Procedure.** The mitigation measures are recorded with the action and procedure necessary to ensure compliance. In some instances, one action may be used to verify implementation of several mitigation measures.
- **Compliance and Verification.** A procedure for compliance and verification has been outlined for each action necessary. This procedure designates who will take action, what action will be taken and when, and to whom and when compliance will be reported.
- **Flexibility.** The program has been designed to be flexible. As monitoring progresses, changes to compliance procedures may be necessary based upon recommendations by those responsible for the Mitigation Monitoring and Reporting Program. As changes are made, new monitoring compliance procedures and records will be developed and incorporated into the program.

### ***Chapter 9 EIR Preparation***

Key persons from the County of Tulare and the consulting firms that contributed to preparation of the Draft Environmental Impact Report (Draft EIR) are identified.

The sitting Tulare County Board of Supervisors, Tulare County Planning Commission, Tulare County Resource Management Agency RMA Director (Reed Schenke), Associate RMA Director (Michael Washam), Assistant RMA Director Economic Development and Planning (Aaron Bock), Chief Environmental Planner (Hector Guerra), and Planner IV (Jessica Willis) are noted.

This EIR also relied on the expertise of the following:

Appendix "A" includes

*Jessica Willis, Planner IV, RMA - "Technical Memorandum Air Quality, Greenhouse Gases, and Energy Consumption for the Dunn Asphalt and Concrete Batch Plant;"* included in Appendix "A".

*Alta Environmental – Health Risk Assessment and September 20, 2019; San Joaquin Valley APCD Stationary Concrete Batch Plant Permit Application; San Joaquin Valley APCD Hot Mix Asphalt Plant Permit Application, September 6, 2019; San Joaquin Valley*



*APCD Concrete and Asphalt Recycling Plant Permit, September 6, 2019* included in Appendix “A”.

*Live Oak Associates, Inc. - “Biological Evaluation Visalia Concrete/Asphalt Batch Plant Project;”* included in Appendix “B”.

*ASM Affiliates - “Phase I Survey, 7763 Avenue 280, Visalia, Tulare County, California”* (that is, archaeological, historical, cultural , and tribal cultural resources); included in Appendix “C”.

*“Geology and Soils Report for Proposed Concrete and Asphalt Batch Plant;”* included Appendix “D” includes

*“Hydrology and Water Quality Report for Proposed Concrete and Asphalt Batch Plant;”* included in Appendix “E” includes

*“Traffic Impact Study Proposed Concrete and Asphalt Batch Plant;”* included in Appendix F



## SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES

Table ES-2 Mitigation Monitoring and Reporting Program							
Mitigation Measure	Monitoring Timing / Frequency	Action Indicating Compliance	Monitoring Agency	Person conducting Monitoring / Reporting	Verification of Compliance		
					Initials	Date	Remarks
AESTHETICS							
3.1-1 Landscape screening (with a 5-year grow out schedule to maturity) shall be placed and effectively maintained along the periphery of the Project site to sufficiently screen the Project’s structures and activities from the public right-of-way and views from Avenue 280 and along the western, eastern, and southern boundaries of the Project. A landscaping plan shall be submitted to the Planning Department for review and approval prior to the issuance of building permits.	Prior to Issuance of Building Permit.	Verified on submitted site plans.	Tulare County Building Inspector	Tulare County Building Inspector			
3.1-2 The silos shall be painted in earth-toned colors to allow them to blend into the surrounding scenery to the fullest extent.	Prior to Issuance of Building Permit.	Verified on submitted site plans.	Tulare County Building Inspector	Tulare County Building Inspector			
AGRICULTURE & FORESTRY RESOURCES							
3.2-1 The applicant will be required to create an agricultural land conservation easement at a ratio of 1 acre of developed property for 1 acre of conserved agricultural land (a 1:1 ratio). This amount of 1:1 will be represented by 19.33 acres within the County. Any replacement acreage will be to the satisfaction of the Planning Director of Tulare County. The applicant will purchase an agricultural land conservation easement, of like agricultural land within the County, on the entire 19.33 acres to be maintained and kept in agriculture in perpetuity. The “ultimate” agricultural easement shall be placed on other suitable and	Prior to Issuance of Building Permit.	Approval of Agricultural Land Conservation Easement.	County of Tulare Planning Department	County of Tulare Planning Department			



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Table ES-2 Mitigation Monitoring and Reporting Program							
Mitigation Measure	Monitoring Timing / Frequency	Action Indicating Compliance	Monitoring Agency	Person conducting Monitoring / Reporting	Verification of Compliance		
					Initials	Date	Remarks
agriculturally compatible property, of the same soil types and arability, within Tulare County; at a replacement ratio of 1:1, and to be established as an agricultural land conservation easement in perpetuity.							
<b>BIOLOGICAL RESOURCES</b>							
<i>Swainson's hawks and other raptors and migratory birds (including Loggerhead Shrike)</i>							
<b>3.4-1. (Avoidance).</b> In order to avoid impacts to nesting birds, construction will occur, where possible, outside the nesting season, or between September 16 and January 31.	Prior to start of construction.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department	Field survey by a qualified Biologist.			
<b>3.4-2. (Pre-construction surveys).</b> If construction must occur during the nesting season (February 1- September 15), a qualified biologist will conduct pre-construction surveys for active bird nests within 10 days of the onset of project initiation. Nest surveys will include all accessible areas on the project site and within 250 feet of the project site for tricolored blackbird, loggerhead shrike, and other migratory birds; within 500 feet for non-listed raptors; and 0.5 miles for Swainson's hawks. Inaccessible areas will be scanned with binoculars or spotting scope, as appropriate. If no active nests are found within the survey area, no further mitigation is required.	Prior to start of construction.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department	Field survey by a qualified Biologist.			
<b>3.4-3. (Establish Buffers).</b> If active nests are found within the survey areas a qualified biologist will establish appropriate no-disturbance buffers based on species tolerance of human disturbance, baseline levels	Prior to construction-related activities.	Retention of professional biologist/ongoing monitoring/	County of Tulare Planning Department	Qualified biologist.			



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<b>Table ES-2</b> <b>Mitigation Monitoring and Reporting Program</b>							
Mitigation Measure	Monitoring Timing / Frequency	Action Indicating Compliance	Monitoring Agency	Person conducting Monitoring / Reporting	Verification of Compliance		
					Initials	Date	Remarks
of disturbance, and barriers that may separate the nest from construction disturbance. These buffers will remain in place until the breeding season has ended or until the qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.		submittal of Report of Findings, if applicable					
<b>GEOLOGY AND SOILS</b>							
<b>3.7-1</b> Submit to the Tulare County RMA Director a grading and construction plan that highlights the planned locations of excavations or other ground alterations that would result in the exposure of soils at depths greater than 5 feet below existing grade within the project site.	Prior to construction-related activities.	Approval by Tulare County RMA	County of Tulare Planning Department	County of Tulare Planning Department			
<b>3.7-2 a)</b> In the event any paleontological resources are exposed or discovered during subsurface excavation or construction in areas not being monitored by the professional paleontologist, ground-disturbing operations shall stop within 25 feet of the find and the professional paleontologist shall be contacted immediately to implement all applicable provisions of the approved Paleontological Monitoring and Recovery Plan.  <b>b)</b> If paleontological resource are encountered, retain the services of a qualified professional paleontologist as recognized by the Museum of Paleontology at U.C. Berkeley. <b>c)</b> If paleontological resource are encountered, authorize the professional paleontologist to prepare a Paleontological Monitoring and Recovery Plan, following the guidelines of the Society of Vertebrate	During construction-related activities.	Daily or as needed throughout the construction period if suspicious resources are discovered	County of Tulare Planning Department	County of Tulare Planning Department			



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<b>Table ES-2</b> <b>Mitigation Monitoring and Reporting Program</b>							
Mitigation Measure	Monitoring Timing / Frequency	Action Indicating Compliance	Monitoring Agency	Person conducting Monitoring / Reporting	Verification of Compliance		
					Initials	Date	Remarks
<p>Paleontology (1995), and submit the Plan to the County for review and approval prior to ground disturbance.</p> <p><b>d)</b> If paleontological resource are encountered, authorize the professional paleontologist to visually monitor the planned excavations that extend deeper than five (5) feet below existing grade at the project site. No monitoring of excavation or construction by the professional paleontologist is required outside the identified deep excavation areas within the project site.</p> <p><b>e)</b> If paleontological resource are encountered, provide advance authorization to the professional paleontologist to implement all applicable provisions of the approved Paleontological Monitoring and Recovery Plan to ensure protection, preservation, and proper recovery of any paleontological resources, including reporting requirements.</p>							
<b>HAZARDS AND HAZARDOUS MATERIALS</b>							
<b>8-1</b> The Project proponent shall prepare a Hazardous Materials Business Plan for review and approval by the Tulare County Health & Human Services Agency, Environmental Health Services Division. The Plan shall be in effect prior to issuance of a building permit for the proposed expansion.	Prior to construction.	Approval by Tulare County Environmental Health.	County of Tulare Planning Department	County of Tulare Planning Department			
<b>8-2</b> Because the facility proposes an above ground storage capacity over 1,320 gallons of a petroleum based product, the site shall be required to prepare a Spill Prevention Control and Countermeasure (SPCC) plan in accordance with the U.S. Code of Federal Regulations, Title 40, Part 112 (40CFR112) prior to the final inspection of the building permit. The plan shall be submitted to the Tulare County Environmental Health Services Division. The applicant shall contact	Prior to construction.	Approval by Tulare County Environmental Health.	County of Tulare Planning Department	County of Tulare Planning Department			



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<b>Table ES-2</b> <b>Mitigation Monitoring and Reporting Program</b>							
Mitigation Measure	Monitoring Timing / Frequency	Action Indicating Compliance	Monitoring Agency	Person conducting Monitoring / Reporting	Verification of Compliance		
					Initials	Date	Remarks
the TCEHSD's CUPA inspector at (559) 624-7400 for any additional questions.							
<b>NOISE</b>							
<b>13-1</b> Construction-related activities (e.g., set-up), excluding emergency work and activities that would result in a safety concern to the public or construction workers, shall be limited to between the hours of 7:00 A.M. and 7:00 P.M. Construction-related activities (e.g., set-up) activities shall be prohibited on Sundays and federal holidays.	During Construction	Daily or as needed throughout the construction	County of Tulare Planning Department	County of Tulare Planning Department			
<b>13-2</b> Construction-related activities (e.g., set-up) equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and shrouds, in accordance with manufacturers' recommendations.	During Construction	Daily or as needed throughout the construction	County of Tulare Planning Department	County of Tulare Planning Department			
<b>TRANSPORTATION/TRAFFIC</b>							
<b>17-1.</b> The Project Applicant will be responsible for paying an equitable share fee as determined between the Applicant and Caltrans based on the trips identified in Table 3.17-1 or through another methodology agreed upon by Applicant and Caltrans. Applicant and Caltrans will determine terms and timing of the equitable share.	Prior to Issuance of Building Permit.	Payment of Fees	Tulare County Planning Department & Caltrans	Tulare County Planning Department			
<b>17-2.</b> The Project Applicant will pay their fair share towards the necessary maintenance based on a proportionate share calculation based on vehicle impact to the structural section for this roadway segment between SR 99 and the Tulare/Kings County line. This shall be made a Condition of Approval of the Project.	Prior to Issuance of Building Permit.	Payment of Fees	Tulare County Planning Department	Tulare County Planning Department			



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<b>Table ES-2</b> <b>Mitigation Monitoring and Reporting Program</b>							
Mitigation Measure	Monitoring Timing / Frequency	Action Indicating Compliance	Monitoring Agency	Person conducting Monitoring / Reporting	Verification of Compliance		
					Initials	Date	Remarks
<b>TRIBAL CULTURAL RESOURCES</b>							
<b>18-1.</b> In the event that historical, archaeological or paleontological resources are discovered during site excavation, the County shall require that grading and construction work on the Project site be immediately suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. In this event, the property owner shall retain a qualified archaeologist/paleontologist to provide recommendations for measures necessary to protect any site determined to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recover, excavation analysis, and curation of archaeological or paleontological materials. County staff shall consider such recommendations and implement them where they are feasible in light of Project design as previously approved by the County.	During Construction	Daily or as needed throughout the construction period if suspicious resources are discovered	Tulare County Planning Department	A qualified archaeologist shall document the results of field evaluation and shall recommend further actions that shall be taken to mitigate for unique resource or human remains found, consistent with all applicable laws including CEQA.			
<b>18-2</b> Consistent with Section 7050.5 of the California Health and Safety Code and (CEQA Guidelines) Section 15064.5, if human remains of Native American origin are discovered during Project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken: 1. There shall be no further excavation or disturbance of the site or any nearby area	During Construction	Daily or as needed throughout the construction period if suspicious resources are discovered	Tulare County Planning Department	A qualified archaeologist shall document the results of field evaluation and shall recommend further actions that shall be taken to mitigate for unique resource or human remains found, consistent			



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<b>Table ES-2</b> <b>Mitigation Monitoring and Reporting Program</b>							
Mitigation Measure	Monitoring Timing / Frequency	Action Indicating Compliance	Monitoring Agency	Person conducting Monitoring / Reporting	Verification of Compliance		
					Initials	Date	Remarks
<p>reasonably suspected to overlie adjacent human remains until:</p> <p>a. The Tulare County Coroner/Sheriff must be contacted to determine that no investigation of the cause of death is required; and</p> <p>b. If the coroner determines the remains to be Native American:</p> <p>i. The coroner shall contact the Native American Heritage Commission within 24 hours.</p> <p>ii. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.</p> <p>iii. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or</p> <p>2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.</p>				with all applicable laws including CEQA.			



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**Table ES-2**  
**Mitigation Monitoring and Reporting Program**

Mitigation Measure	Monitoring Timing / Frequency	Action Indicating Compliance	Monitoring Agency	Person conducting Monitoring / Reporting	Verification of Compliance		
					Initials	Date	Remarks
a. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission. b. The descendant fails to make a recommendation; or c. The landowner or his authorized representative rejects the recommendation of the descendent.							



# **Introduction**

## **Chapter 1**

### **PROJECT SUMMARY**

Dunn's Equipment, Inc. (Applicant), is proposing development of an Asphalt and Concrete Batch Plant (including concrete recycling) located southwest of Visalia, in Tulare County, California.

The Applicant is seeking to operate the asphalt/concrete batch plant at 7763 Avenue 280 (Visalia, CA) which is located along the south side of Avenue 280, west of State Route 99 (SR 99) and east of Road 76 in an unincorporated area of Tulare County. The Applicant is pursuing a Special Use Permit (PSP 18-049) through Tulare County for the following: (1) a concrete batch plant that would produce 100,000 tons of concrete per year; (2) a hot-mix asphalt (HMA) batch plant that would produce 150,000 tons of hot mix asphalt (HMA) per year; and (3) recycling of 30,000 tons per year of concrete and asphalt to be crushed into recycle base.

When operational, the proposed Project would utilize approximately 15-20 employees and include an approximate 1,000 square foot office. The Applicant is proposing to operate Monday-Friday between 6:00 a.m. to 4:00 p.m., and 7:00 a.m. to 12:00 p.m. (noon) on Saturdays. Depending upon demand, summer hours may begin earlier than 6:00 a.m. The Project would generate approximately 280 passenger car equivalent (PCE) trips during the morning peak travel periods and 110 PCE trips during the evening peak travel periods. Site access will be provided via one main driveway connecting to the south side of Avenue 280 approximately 1,000 feet east of Road 76. A majority of the trips will occur between 7:00 a.m. and 9:00 a.m., and between 4:00 and 6:00 p.m.

### **LOCAL REGULATORY CONTEXT**

The Tulare County General Plan Update 2030 was adopted on August 28, 2012. As part of the General Plan an EIR was prepared as was a background report. The General Plan background report contained contextual environmental analysis for the General Plan. The Housing Element for 2009-2014 was adopted on May 8, 2012, and certified by State of California Department of Housing and Community Development on June 1, 2012.

### **SCOPE AND METHODOLOGY**

The County of Tulare has determined that a project level EIR fulfills the requirements of CEQA and is the appropriate level evaluation to address the potential environmental impacts of the proposed project. A project level EIR is described in Section 15161 of the State CEQA Guidelines as one that examines the environmental impacts of a specific development project. A



project level EIR must examine all phases of the project, including planning, construction, and operation.

This document addresses environmental impacts to the level that they can be assessed without undue speculation (CEQA Guidelines Section 15145). This *Draft Environmental Impact Report (DEIR)* acknowledges this uncertainty and incorporates these realities into the methodology to evaluate the environmental effects of the Plan, given its long term planning horizon. The degree of specificity in an EIR corresponds to the degree of specificity of the underlying activity being evaluated (CEQA Guidelines Section 15146). Also, the adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project (CEQA Guidelines Sections 15151 and 15204(a)).

CEQA Guidelines Section 15002 (a) specifies that, “[t]he basic purposes of CEQA are to:

- (1) Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.
- (2) Identify ways that environmental damage can be avoided or significantly reduced.
- (3) Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- (4) Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.”<sup>1</sup>

CEQA Guidelines Section 15002 (f) specifies that, “[a]n environmental impact report (EIR) is the public document used by the governmental agency to analyze the significant environmental effects of a proposed project, to identify alternatives, and to disclose possible ways to reduce or avoid the possible environmental damage... An EIR is prepared when the public agency finds substantial evidence that the project may have a significant effect on the environment... When the agency finds that there is no substantial evidence that a project may have a significant environmental effect, the agency will prepare a “Negative Declaration” instead of an EIR...”<sup>2</sup>

Pursuant to CEQA Guidelines Section 15021 Duty to Minimize Environmental Damage and Balance Competing Public Objectives:

- “(a) CEQA establishes a duty for public agencies to avoid or minimize environmental damage where feasible.
- (1) In regulating public or private activities, agencies are required to give major consideration to preventing environmental damage.
  - (2) A public agency should not approve a project as proposed if there are feasible alternatives or mitigation measures available that would substantially lessen any significant effects that the project would have on the environment.
- (b) In deciding whether changes in a project are feasible, an agency may consider specific economic, environmental, legal, social, and technological factors.

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<sup>1</sup> CEQA Guidelines, Section 15002 (a).

<sup>2</sup> Ibid., Section 15002 (f).



- (c) The duty to prevent or minimize environmental damage is implemented through the findings required by Section 15091.
- (d) CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors and in particular the goal of providing a decent home and satisfying living environment for every Californian. An agency shall prepare a statement of overriding considerations as described in Section 15093 to reflect the ultimate balancing of competing public objectives when the agency decides to approve a project that will cause one or more significant effects on the environment.”<sup>3</sup>

## IDENTIFICATION OF POTENTIALLY SIGNIFICANT IMPACTS

CEQA Guidelines Section 15002 (h) addresses potentially significant impacts, to wit, “CEQA requires more than merely preparing environmental documents. The EIR by itself does not control the way in which a project can be built or carried out. Rather, when an EIR shows that a project could cause substantial adverse changes in the environment, the governmental agency must respond to the information by one or more of the following methods:

- (1) Changing a proposed project;
- (2) Imposing conditions on the approval of the project;
- (3) Adopting plans or ordinances to control a broader class of projects to avoid the adverse changes;
- (4) Choosing an alternative way of meeting the same need;
- (5) Disapproving the project;
- (6) Finding that changes in, or alterations, the project are not feasible.
- (7) Finding that the unavoidable, significant environmental damage is acceptable as provided in Section 15093.”<sup>4</sup> (See Chapter 7)

This *Draft EIR* identifies potentially significant impacts that would be anticipated to result from implementation of the proposed Project. Significant impacts are defined as a “substantial or potentially substantial, adverse change in the environment.”<sup>5</sup> Significant impacts must be determined by applying explicit significance criteria to compare the future plan conditions to the existing environmental setting.<sup>6</sup>

The existing setting is described in detail in each resource section of Chapter 3 of this document and represents the most recent, reliable, and representative data to describe current regional conditions. The criteria for determining significance are also included in each resource section in Chapter 3 of this document.

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<sup>3</sup> Ibid., Section 15021.

<sup>4</sup> 2013 CEQA Guidelines, Section 15002 (h).

<sup>5</sup> Public Resources Code Section 21068.

<sup>6</sup> CEQA Guidelines Section 15126.2(a).



## CONSIDERATION OF SIGNIFICANT IMPACTS

Pursuant to CEQA Guidelines Section 15126.2, “[a]n EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.”<sup>7</sup>

## MITIGATION MEASURES

CEQA Guidelines Section 15126.4 specifies that:

- “(1) An EIR shall describe feasible measures which could minimize significant adverse impacts, including where relevant, inefficient and unnecessary consumption of energy.
  - (A) The discussion of mitigation measures shall distinguish between the measures which are proposed by project proponents to be included in the project and other measures proposed by the lead, responsible or trustee agency or other persons which are not included but the lead agency determines could reasonably be expected to reduce adverse impacts if required as conditions of approving the project. This discussion shall identify mitigation measures for each significant environmental effect identified in the EIR.
  - (B) Where several measures are available to mitigate an impact, each should be discussed and the basis for selecting a particular measure should be identified. Formulation of mitigation measures should not be deferred until some future time. However, measures may specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way.

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<sup>7</sup> 2013 CEQA Guidelines, Section 15126.2



- (C) Energy conservation measures, as well as other appropriate mitigation measures, shall be discussed when relevant. Examples of energy conservation measures are provided in Appendix F.
- (D) If a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure shall be discussed but in less detail than the significant effects of the project as proposed. (*Stevens v. City of Glendale* (1981) 125 Cal.App.3d 986.)
- (2) Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments. In the case of the adoption of a plan, policy, regulation, or other public project, mitigation measures can be incorporated into the plan, policy, regulation, or project design.
- (3) Mitigation measures are not required for effects which are not found to be significant.
- (4) Mitigation measures must be consistent with all applicable constitutional requirements, including the following:
  - (A) There must be an essential nexus (i.e., connection) between the mitigation measure and a legitimate governmental interest. *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987); and
  - (B) The mitigation measure must be “roughly proportional” to the impacts of the project. *Dolan v. City of Tigard*, 512 U.S. 374 (1994). Where the mitigation measure is an ad hoc exaction, it must be “roughly proportional” to the impacts of the project. *Ehrlich v. City of Culver City* (1996) 12 Cal.4th 854.
- (5) If the lead agency determines that a mitigation measure cannot be legally imposed, the measure need not be proposed or analyzed. Instead, the EIR may simply reference that fact and briefly explain the reasons underlying the lead agency's determination.”<sup>8</sup>

## **ORGANIZATION OF THE EIR**

### Executive Summary

The Executive Summary Chapter summarizes the analysis in this Draft Environmental Impact Report.

### CHAPTER 1

Provides a brief introduction to the Environmental Analysis required by the California Environmental Quality Act (CEQA).

### CHAPTER 2

Describes the proposed Project. The chapter also includes the objectives of the proposed Project. The environmental setting is described and the regulatory context within which the proposed Project is evaluated is outlined.

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<sup>8</sup> 2013 CEQA Guidelines, Section 15126.4.



### CHAPTER 3

Includes the Environmental Analysis in response to each Checklist item. Within each analysis the following is included:

#### ***Summary of Findings***

Each chapter notes a summary of findings.

#### ***Introduction***

Each chapter will begin with a summary of impacts, pertinent CEQA requirements, applicable definitions and/or acronyms, and thresholds of significance.

#### ***Environmental Setting***

Each environmental factor analysis in Chapter 3 will outline the environmental setting for each environmental factor. In addition, methodology is explained when complex analysis is required.

#### ***Regulatory Setting***

Each environmental factor analysis in Chapter 3 will outline the regulatory setting for that resource.

#### ***Project Impact Analysis***

Each evaluation criteria will be reviewed for potential Project-specific impacts.

#### ***Cumulative Impact Analysis***

Each evaluation criteria will be reviewed for potential cumulative impacts.

#### ***Mitigation Measures***

Mitigation Measures will be proposed as deemed applicable.

#### ***Conclusion***

Each conclusion will outline whether recommended mitigation measures will, based on the impact evaluation criteria, substantially reduce or eliminate potentially significant environmental impacts. If impacts cannot be mitigated, unavoidable significant impacts will be identified.



***Definitions/Acronyms***

Some sub-chapters of Chapter 3 will have appropriate definitions and/or acronyms.

***References***

Reference documents used in each chapter are listed at the end of each sub-chapter.

**CHAPTER 4**

Summarizes the cumulative impacts addressed in Chapter 3.

**CHAPTER 5**

Describes and evaluates alternatives to the proposed Project. The proposed Project is compared to each alternative, and the potential environmental impacts of each are analyzed.

**CHAPTER 6**

Evaluates or describes CEQA-required subject areas: Economic Effects, Social Effects, and Growth Inducement.

**CHAPTER 7**

Evaluates or describes CEQA-required subject areas: Environmental Effects That Cannot be Avoided, Irreversible Impacts, and Statement of Overriding Considerations.

**CHAPTER 8**

Provides a Mitigation Monitoring and Reporting Program that summarizes the environmental issues, the significant mitigation measures, and the agency or agencies responsible for monitoring and reporting on the implementation of the mitigation measures.

**CHAPTER 9**

Outlines persons preparing the EIR.

**APPENDICES**

Following the text of this *Draft EIR*, several appendices and technical studies have been included as reference material.



## ENVIRONMENTAL REVIEW PROCESS

Pursuant to CEQA Guidelines §15082, the Notice of Preparation (NOP) for the Proposed Project was circulated for review and comment on January 25, 2019 and circulated for a 30-day comment period ending February 25, 2019. Tulare County RMA received five comments on the NOP. Comments were received from the following agencies, individuals, and/or organizations:

- Native American Heritage Commission, dated January 25, 2019;
- California Department of Conservation, Division of Land Resource Protection, dated January 29, 2019;
- Tulare County Health & Human Services Agency, dated January 31, 2019;
- California Department of Transportation District 6, dated February 15, 2019; and
- San Joaquin Valley Unified Air Pollution Control District, dated February 20, 2019.

A copy of the NOP is included in Appendix “G”, along with copies of letters received in response to the NOP.

Consistent with CEQA Guidelines Section 15103, “Responsible and Trustee Agencies, and the Office of Planning and Research shall provide a response to a Notice of Preparation to the Lead Agency within 30 days after receipt of the notice. If they fail to reply within the 30 days with either a response or a well justified request for additional time, the lead agency may assume that none of those entities have a response to make and may ignore a late response.”<sup>9</sup>

A scoping meeting was noticed in the Notice of Preparation and held on January 31, 2019. No comments were received during this meeting.

Section 15093 of the State CEQA Guidelines requires decision-makers to balance the benefits of a proposed project against any unavoidable adverse environmental effects of the project. If the benefits of the project outweigh the unavoidable adverse environmental effects, then the decision-makers may adopt a statement of overriding considerations, finding that the environmental effects are acceptable in light of the project’s benefits to the public.

As noted in CEQA Guidelines § 15105 (a), a Draft EIR that is submitted to the State Clearinghouse shall have a minimum review period of 45 days. This *Draft EIR* was circulated publicly for a 45-day comment period beginning on Month Day, 2019 and ending on Month Day, 2019. Following completion of the review period, staff will prepare responses to comments and a *Final EIR* will be prepared. The *Final EIR* will then be forwarded to the County of Tulare Planning Commission for consideration of certification. Notwithstanding an appeal to the County of Tulare Board of Supervisors, a Notice of Determination will then be filed with the County of Tulare Clerk’s Office and also forwarded to the State of California, Office of Planning and Research/State Clearinghouse.

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<sup>9</sup> 2013 CEQA Guidelines, Section 15103.



## **ORGANIZATIONS AND PERSONS CONSULTED**

### Public Entities

- 1) U.S. Fish & Wildlife Service
- 2) U.S. Army Corps of Engineers Planning Division
- 3) U.S. Department of Agriculture - NRCS
- 4) U.S. Natural Resources Conservation Service
- 5) California State Clearinghouse
- 6) Cal Recycle
- 7) San Joaquin Valley Unified Air Pollution Control District
- 8) City of Tulare
- 9) City of Visalia
- 10) County of Kings
- 11) Tulare County Agricultural Commissioner
- 12) Tulare County Airport Land Use Commission
- 13) Tulare County Association of Governments
- 14) Tulare County Resource Management Agency:
  - a. Planning Branch (Environmental Planning, Project Review, Building and Housing Divisions)
  - b. Public Works Branch
  - c. Tulare County Flood Control
  - d. Tulare County Fire
- 15) Tulare County Environmental Health and Human Services Agency, Environmental Health Division
- 16) Tulare County Office of Emergency Services
- 17) Tulare County Resources Conservation District
- 18) Tulare County Sheriff's Office
- 19) Tulare County U.C. Cooperative Extension
- 20) Tulare Irrigation District

### Native American Tribes

- 21) Kern Valley Indian Council
- 22) Santa Rosa Rancheria Tachi Yokut Tribe
- 23) Torres Martinez Desert Cahuilla Indians
- 24) Tubatulabals of Kern County of Tulare
- 25) Tule River Indian Tribe
- 26) Wuksachi Indian Tribe

### Others

- 27) 4Creeks, Inc.
- 28) Dunn's Equipment, Inc.
- 29) La Joya Middle School



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- 30) Linwood Elementary School
- 31) Southern California Edison
- 32) Southern California Gas Company
- 33) Sequoia Baptist Academy
- 34) Tulare County Farm Bureau
- 35) Visalia Montessori School
- 36) Visalia Unified School District



# Project Description & Objectives

## Chapter 2

### INTRODUCTION

In accordance with the California Environmental Quality Act (CEQA) (Pub. Resources Code, Section 21000 et seq.), the County of Tulare Resource Management Agency (RMA) is preparing this Environmental Impact Report (EIR) to evaluate the environmental effects associated with the Dunn Asphalt and Concrete Batch Plant Project (Project).

The Applicant is seeking to operate the asphalt/concrete batch plant at 7763 Avenue 280 (Visalia, CA) which is located along the south side of Avenue 280, west of State Route 99 (SR 99) and east of Road 76 in an unincorporated area of Tulare County. The Applicant is pursuing a Special Use Permit (PSP 18-049) through Tulare County for the following: 1) a concrete batch plant that would produce 100,000 tons of concrete per year for commercial and retail sale; 2) a hot-mix asphalt (HMA) batch plant that would produce 150,000 tons of HMA per year for commercial and retail sale; and 3) recycling of 30,000 tons per year of concrete and asphalt to be crushed into recycle base.

### PROJECT LOCATION

The proposed Project will be located in the central San Joaquin Valley, approximately 45 miles southeast of the City of Fresno and 2.5 miles west of the City of Visalia (see **Figure 2-1**). The proposed Project will be located along the south side of Avenue 280, west of State Route 99 (SR 99) and east of Road 68, in an unincorporated area of Tulare County. (see **Figure 2-2**). The site is approximately one mile west of State Route 99. The approximately 20-acre site is located on Tulare County APN 119-010-039 and is currently zoned AE-40 (Exclusive Agricultural-40 Acre Minimum) and the use would be consistent with the zoning with an approved special use permit. The site is located within the *Goshen* 7.5 Minute USGS Quadrangle in Section 8, Township 19S, Range 24E, M.D.B. & M.

The coordinates of the proposed Project site are:

Latitude: N 36° 17' 46"  
Longitude: W 119° 24' 28"

### VICINITY OF PROJECT SITE

The area surrounding the proposed Project site predominantly consists of rural agricultural land, scattered rural residences, a private elementary school, active dairy facilities, the Visalia Municipal Airport (approximately 1.5 miles northeast), and the City of Visalia (approximately 2.5 miles east). The site is surrounded by dairies and dairy-related agricultural fields on its east,



west, and south sides; and a walnut orchard to the north. It is generally bound by Avenue 280 (immediately north), Road 68 (0.50 miles west), Avenue 272 (0.75 miles south), and State Route 99 (one mile east).

## ZONING AND LAND USE

The site is zoned as AE-40 (Exclusive Agriculture-40 Acre minimum) and is proposed to remain as such pending approval of a Special Use Permit, which is the subject matter of this EIR. No expansion of the existing footprint is being proposed. The site was previously used as a cotton gin facility and still contains an area of crushed asphalt substrate, a metal-sided barn, a building believed to have been previously used as an office building, and a raised water storage tank.

## PROJECT DESCRIPTION

According to the Applicant, the project will consist of the following components:

- 1. Concrete Batch Plant:** This operation will consist of a concrete mixing plant and cement powder storage along with aggregate storage (1" x #4 rock, 3/8 rock and concrete sand) and batch operations to produce ready mix concrete. Cement and fly ash will be stored in separate silos approximately 40' tall which will be the tallest parts of the plant. Aggregate will be pushed into piles approximately 15' in height as trucks bring the materials to the site. The Applicant envisions producing 200,000 tons (100,000 cubic yards) of concrete per year resulting in 400 round-trip truckloads per week; 160,000 of aggregate (sand and gravel) for concrete resulting in 260 round-trip truckloads per week; and 28,000 tons of cement and fly ash delivery trucks resulting in 50 round-trip truckloads per week imported/exported into/from the site.

**Equipment to be used for concrete process:** A wheel loader will be used to keep aggregate materials pushed up into stockpiles. The crushing plant is a California Air Resources Board approved portable plant that will be fed with an excavator and wheel loader. A water truck and sprinkler system will be used to control dust emissions.

- 2. Recycling of Concrete and Asphalt:** This is a portable crushing plant that will be onsite as needed (estimated 5-10 times per year) depending upon the stockpile of materials. The Applicant will accept broken concrete and asphalt (rubble) that contractors will import and push into a stockpile up to approximately 15' in height. When the pile reaches a volume that is cost-effective to use, a portable crushing plant will reduce the rubble into base rock of a size suitable for use as road base (for example, to be used for public roads and parking lots). The Applicant estimates that approximately 30,000 tons of base rock will be produced annually resulting in 50 round-trip truckloads per week. Applicant also estimates 30,000 tons of recycled material resulting in 90 round-trip truckload per week.

**Equipment to be used for the recycling process:** A wheel loader will be used to keep the rubble material pushed up into stockpiles to feed the aggregate into the plant and to load the



finished recycled base into trucks when exporting from the site. A water truck and sprinkler system will be used to control dust emissions.

- 3. Hot Mix Asphalt Batch Plant:** As indicated by the Applicant, this operation is very similar to the concrete plant except this material is heated. Aggregates are imported and dumped into stockpiles that are then pushed up with a loader to approximately 15' in height and stored until used in the plant. The asphalt plant will use propane to heat imported oil (that is stored in containers) that is then mixed with the aggregates. The aggregates are then stored in a silo (prior to exporting the product) that will be approximately 40' in height. The Applicant envisions producing approximately 150,000 tons of asphalt per year resulting in approximately 240 round-trip truckloads of asphalt per week. 120,000 tons of aggregate (sand and gravel) resulting in 380 round-trip truckloads, 10 round-trip truckloads of oil, and less than one round-trip truckload of propane imported weekly.

## **CURRENT LAND USE AND SURROUNDING LAND USE**

As noted earlier, the proposed Project site is not currently in use, but was previously used as a cotton gin facility and still contains an area of crushed asphalt substrate, a metal-sided barn, a building believed to have been previously used as an office building, and a raised water tank. The proposed Project site is surrounded by dairies and dairy-related agricultural fields on its east, west, and south sides; and a walnut orchard to the north. (see **Figure 3.1-2**).

## **PROJECT OBJECTIVES**

### **Objective 1: Industrial Developments**

Tulare County General Plan Policy LU-5.1 encourages a wide range of industrial development activities in appropriate locations to promote economic development, employment opportunities, and provide a sound tax base. The proposed Project includes industrial development within an area allowable by a Special Use Permit.

### **Objective 2: Compatibility with Surrounding Land Use**

Tulare County General Plan Policy LU-5.4 encourages the infill of existing industrial areas and ensure that proposed industrial uses will not result in significant harmful impacts to adjacent land uses. The rural nature of the site, the predominantly surrounding dairy-related uses, the proximity of SR 99, and other factors make this site suitable for the proposed Project uses. As such, potential environmental impacts are, or can be reduced to, less than significant.

### **Objective 3: Storage Screening**

Tulare County General Plan Policy LU-5.3 requires adequate landscaping and screening of industrial storage areas to minimize visual impacts and enhance the quality of the environment. The proposed Project will include provisions or landscaping to obstruct views from surrounding areas.



#### **Objective 4: Access**

Tulare County General Plan Policy LU-5.5 requires that industrial development be located where there is access from collector or arterial roads, and where industrial/heavy commercial traffic is not routed through residential areas with uses not compatible with such traffic. The Project proposes to be located in an area that contains only scattered rural housing and is near two major highways (SR 99 and SR 198). Access to and from the site for heavy duty trucks will be on roadways that can accommodate the planned use.

#### **Objective 5: Practice of Recycling Concrete and Asphalt**

According to Cal Recycle in their 2008 survey, Composition of California's Overall Disposal Waste Stream, concrete makes up about 1.2% of all waste material in the State of California. By the end of FY 2005, the goal was to ensure that the diversion rate for nonhazardous solid waste is greater than 40 percent. Requirements for reducing the generation of solid waste are contained in Executive Order 13101.2<sup>1</sup> "The Legislature and Governor Brown set an ambitious goal of 75 percent recycling, composting or source reduction of solid waste by 2020."<sup>2</sup> For recycling and waste prevention, each agency is required to establish a goal for diversion of solid waste from landfilling or incineration. Although not one of the most prevalent forms of waste, it does carry potential hazardous pollutants in lye, fly ash, and other inert materials, and any waters that mix with recycled or mixed concrete batches requires treatment prior to discharge.<sup>3</sup> In addition there is the added cost for disposing concrete that results in greater tipping fees. The air pollutants from concrete mixing are also of special concern to the US EPA.<sup>4</sup> Therefore, the proposed Project's reuse of recycled concrete and other material is beneficial.

#### **Objective 6: Efficient Business Operations**

The proposed Project is intended to implement Applicant's strategic business plan by planning, designing, constructing, and operating a facility which is economically, technologically and environmentally feasible.

### **PROJECT BENEFITS**

#### **Project Benefit # 1): Increase Availability of Construction Materials**

The Project will produce construction materials to support roadway improvements and other construction projects in Tulare County.

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<sup>1</sup> U.S. Army Corps of Engineers, Methods for Reduction, Reuse, and Recycling of Demolition Waste, (2002). Page 1-2

<sup>2</sup> CalRecycle. California's 75 Percent Initiative: Defining the Future. <https://www.calrecycle.ca.gov/calendar/75percent>. Accessed January 2019.

<sup>3</sup> California Water Code Title 27.

<sup>4</sup> U.S. Environmental Protection Agency Guideline 427/09, Concrete Batching



## **Project Benefit # 2: Job Creation**

The Project will create a total of 15-20 new full time jobs for Tulare County residents.

## **Project Benefit #3) Annual Maintenance Fee per Ton**

Based on the analysis contained in Chapter 3.17 Transportation, the Project will result in an impact on Avenue 280 requiring maintenance to keep the road in good repair during the life of the Project. RMA Public Works engineering/roadways staff has calculated an approximately 47% responsibility (i.e., vehicle trips contribution) by the Project. The segment impacted by the Project is along Avenue 280, west of SR 99, to the entry/exit point of the Project; and Avenue 280 from the entry/exit point of the Project west to the Kings County line. Preliminary cost estimates are approximately \$500,000 (unadjusted to account for inflation) during a project 25-year lifespan. It is possible that an alternative method of fair share responsibility could be developed at the time of the Final EIR; however, it is important to note that a nexus has been established as demonstrated in Chapter 3.17.

## **Project Benefit # 4): Conservation of Mineral Resources**

The Project includes diversion from landfills and recycling of 30,000 tons annually of asphalt and concrete. The recycled asphalt and concrete will be crushed to be used as base material. Recycling asphalt and concrete also results in conservation of virgin (raw) material.

## **Project Benefit # 5): Implementation of Countywide 2030 General Plan Policies**

Tulare County's General Plan Policies that are consistent with the Project's purpose and objectives are included in each CEQA Checklist Resource chapter contained in Chapters 3-1 thru 3-21. One hundred six (106) General Policies apply to this Project.

## **Project Benefit #6) Aesthetic Improvements**

As a result of Aesthetic Impacts, the Project is required to provide landscaping (trees and shrubs) along the Avenue 280 frontage, and along the length of the northern, western, and southern property lines (installed on a berm (with a height be determined and fencing (typically 8' of mesh fencing immediately above the berm) for beautification with a 5-year grow-out schedule to maturity). (See **Figure 3.1-3**)

## **ACTIONS REQUIRED FOR IMPLEMENTATION**

To accommodate the proposed Project, the following actions will need to occur:

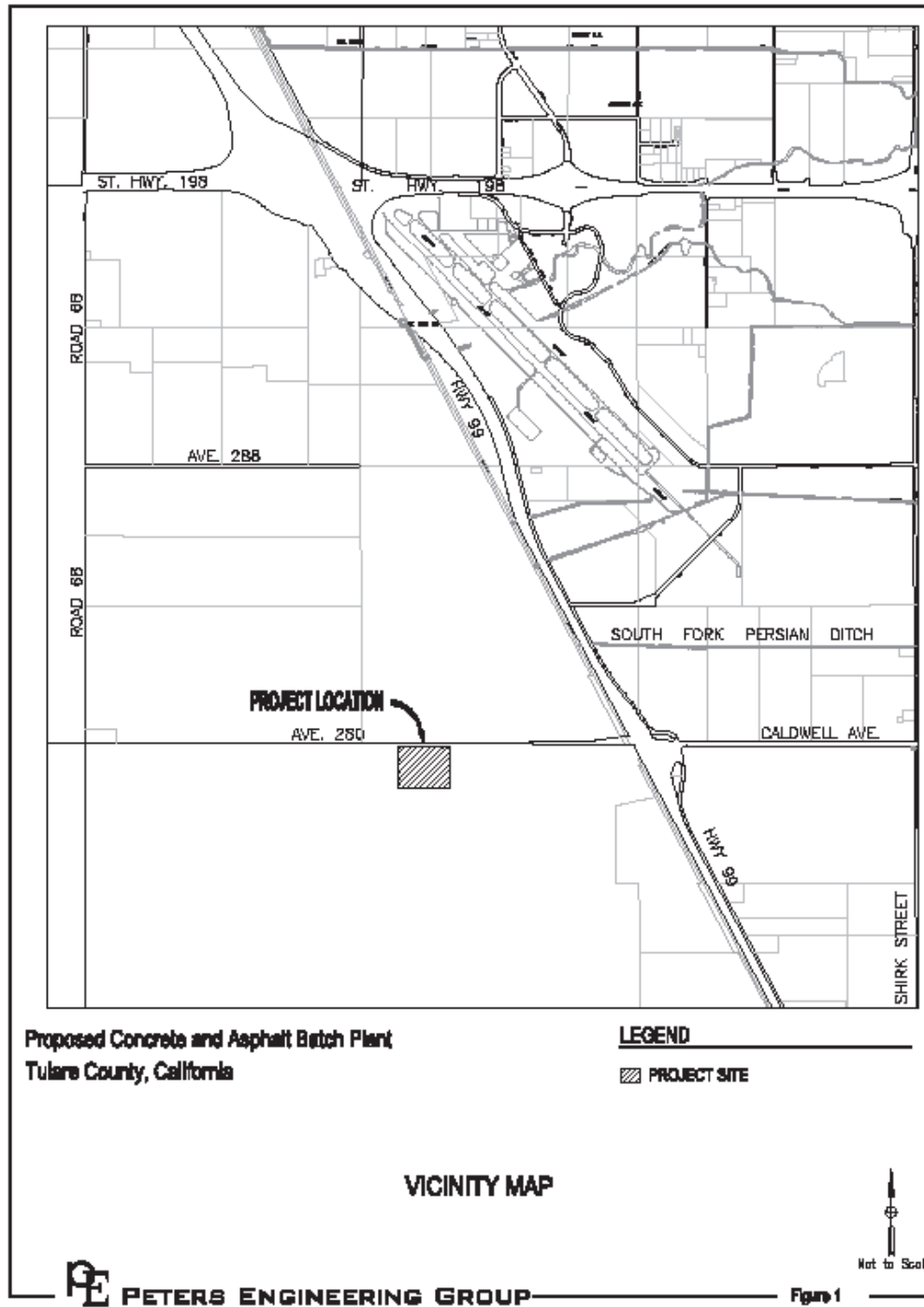
- Regional Water Quality Control Board permits as applicable
- Caltrans approvals/permits as applicable
- San Joaquin Valley Air Pollution Control District (Air District) permits, compliance with rules/regulations, as applicable
- Tulare County approval of a Special Use Permit







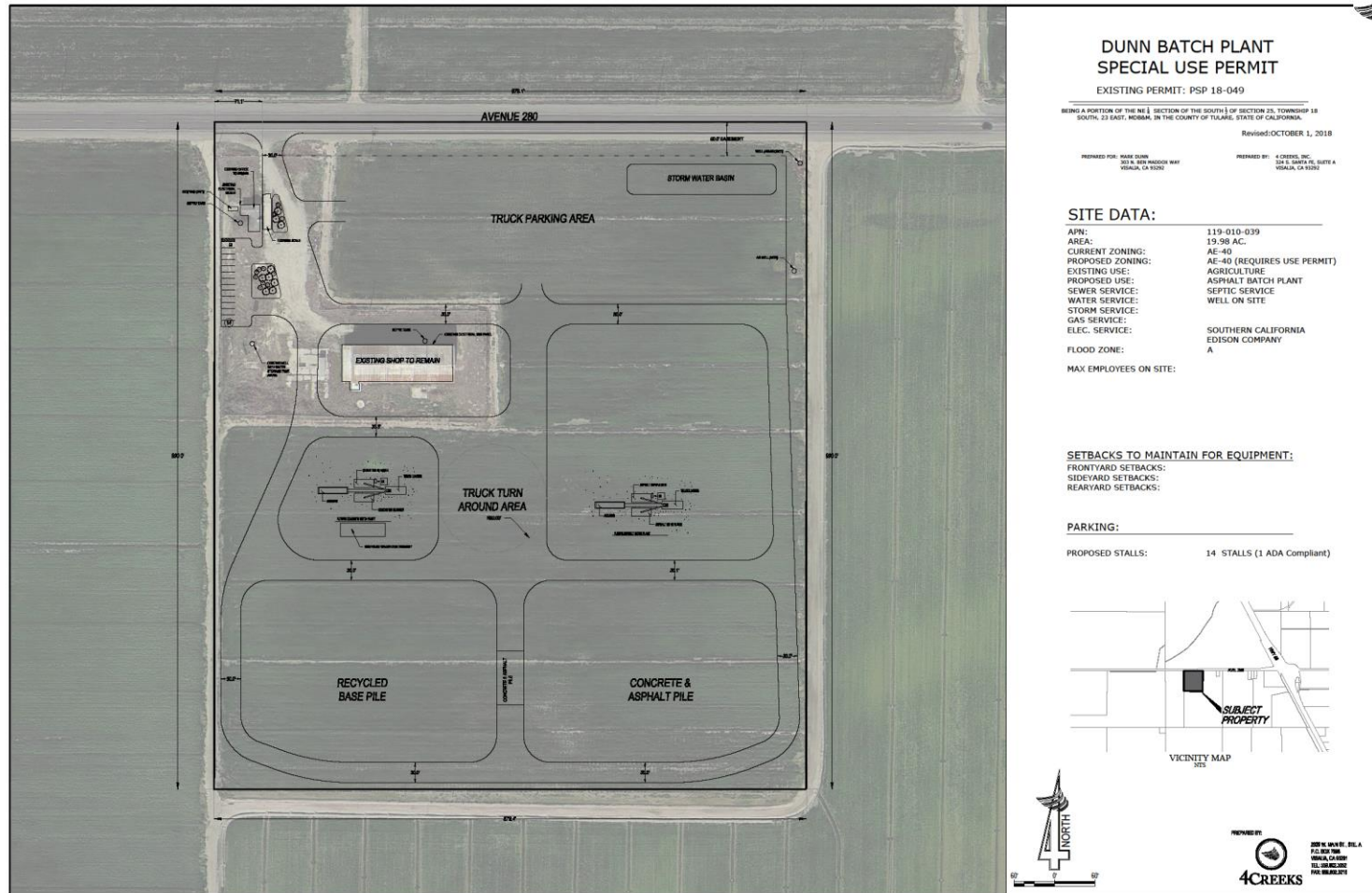
**Figure 2-2: Project Location**





Draft Environmental Impact Report  
Dunn Asphalt and Concrete Batch Plant  
SCH #: 2019011039

Figure 2-3: Aerial of Site Plan





# Aesthetics

## Chapter 3.1

### SUMMARY OF FINDINGS

The proposed Project will have *Less Than Significant Impact With Mitigation* (that is, project design features) related to Aesthetics. A detailed review of potential impacts is provided in the following analysis.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

CEQA requires that significant impacts on the environment be identified and, where possible, measures be added to minimize or eliminate impacts (CEQA Guidelines Section 15382). A “[s]ignificant effect on the environment” means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project...” (CEQA Guidelines Section 15382). With respect to aesthetics, potentially significant CEQA impacts include visual impacts to scenic highways, the visual character of the site, and impacts from lighting.

This section describes the existing visual environment in the vicinity of the Project area using accepted methodology to evaluate aesthetic/visual landscape quality and light/glare. Aesthetic considerations tend to be subjective. The methodologies used to evaluate aesthetic impacts to visual character are qualitative in nature, and are based on photographic documentation of the site and surrounding area.

The proposed Project site is located in the agricultural (Valley) portion of Tulare County. The “Environmental Setting” section describes scenic and aesthetic resources in the region, with special emphasis on the proposed Project site and vicinity. The “Regulatory Setting” provides a description of applicable State and local regulatory policies. A description of the potential impacts of the proposed Project is also provided and includes the identification of feasible mitigation to avoid or lessen the impacts.

The analyses of the existing visual setting and potential visual impacts resulting from the proposed Project are based primarily on information provided by the Project applicant.

#### Thresholds of Significance:

The threshold of significance for this section will include the following:

- Impact on a scenic vista



- Impact on a scenic highway
- Impact on visual quality
- Creation of glare or impacts on nighttime views

## ENVIRONMENTAL SETTING

### *Visual Character of the Region*

“Tulare County is located in a predominately agricultural region of central California. The terrain in the County varies. The western portion of the County includes a portion of the San Joaquin Valley (Valley), and is generally flat, with large agricultural areas with generally compact towns interspersed. In the eastern portion of the County are foothills and the Sierra Nevada mountain range. The Project site is located on the Valley floor, which is very fertile and has been intensively cultivated for many decades. Agriculture and related industries such as agricultural packing and shipping operations and small and medium sized manufacturing plants make up the economic base of the Valley region. Many communities are small and rural, surrounded by agricultural uses such as row crops, orchards, and dairies. From several locations on major roads and highways through out the County, electric towers and telephone poles are noticeable. Mature trees, residential, commercial, and industrial development, utility structures, and other vertical forms are highly visible in the region because of the flat terrain. Where such vertical elements are absent, views are expansive. Most structures are small; usually one story in height, through occasionally two story structures can be seen commercial or industrial agricultural complexes. The County provides a wide range of views from both mobile and stationary locations.”<sup>1</sup>

### *Existing Visual Conditions*

The proposed Project site is located south Avenue 280 approximately 0.5 mile west of State Route (SR 99) and one (1) mile east of Road 76. The approximately 20-acre proposed Project site is located entirely within an unincorporated area of Tulare County. The site is surrounded by agricultural fields on all sides and is bordered by Avenue 280 (north) with an orchard (walnuts) northeast, pistachios (west), an existing dairy and dairy-related ag crops (west), dairy-related ag crops (south), and an existing dairy and dairy-related ag crops (east). The site is flat with minimal slope and is predominantly unused agricultural land (the most recent previous crop grown on site was wheat, as such, the site does not contain any orchards, vineyards, or other more permanent crop types. The site was previously used as a cotton gin facility. It contains a shop building, office building, septic system, well with water storage tank, scale, electrical meter, asphalt drive approach, and a six-foot high chain link fence around the site’s perimeter. Natural drainage features such as creeks, ponds, and vernal pools are absent from the Project site or vicinity. As noted earlier, the Applicant is proposing a trucking and construction yard with a concrete batch plant, hot asphalt plant, material stockpiles, and concrete and asphalt recycling operations.

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<sup>1</sup> Tulare County General Plan 2030 Update: Recirculated Draft EIR (RDEIR), Page 3.1-11



**Figure 3.1-1**  
**View looking south toward Project site from Avenue 280**



**Figure 3.1-2**  
**Aerial View Project Site**  
**Adjacent uses are predominantly agricultural uses**





## **REGULATORY SETTING**

### ***Federal Agencies & Regulations***

None that apply to the proposed Project.

### ***State Agencies & Regulations***

#### **Title 24 Outdoor Lighting Standards**

Title 24 Outdoor Lighting Standards were adopted by the State of California Energy Commission (Commission) (Title 24, Parts 1 and 6, Building Energy Efficiency Standards (Standards) on November 5, 2003 and went into effect on October 1, 2005. The changes included new requirements for outdoor lighting, which vary according to which “lighting Zone” the equipment is in. The Commission defines rural areas as Lighting Zone 2. Existing outdoor lighting systems are not required to meet these lighting allowances.

#### **Scenic Highway Program**

The California Scenic Highway Program was established by the state Legislature in 1963 for the purpose of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been officially designated. The state laws governing the scenic highways program are found in The Streets and Highways Code Sections 260-263. In Tulare County, portions of State Routes 190, 198, and 180 are eligible for state scenic highway designation.<sup>2</sup>

### ***Local Policy & Regulations***

“The scenic landscapes in Tulare County will continue to be one of the County’s most visible assets. The Tulare County General Plan emphasizes the enhancement and preservation of these resources as critical to the future of the County. The County will continue to assess the recreational, tourism, quality of life, and economic benefits that scenic landscapes provide and implement programs that preserve and use this resource to the fullest extent.”<sup>3</sup>

#### **County Scenic Roadways**

“Tulare County’s existing General Plan identifies State designated scenic highways and County designated eligible highways. There are three highway segments designated as eligible by the State. These include State Route 198 from Visalia to Three Rivers, State Route 190 from Porterville to Ponderosa, and State Route 180 extending through Federal land in the northern portion of Tulare County. State Route 198 closely follows around Lake Kaweah and the Kaweah River, while State Route 190 follows around Lake Success and the Tule River. Both Scenic

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<sup>2</sup> Tulare County General Plan 2030 Update, Goals and Policies Report Part 1. Page 7-5.

<sup>3</sup> Tulare County General Plan 203 Update Goals and Policies Report. Page. A-2.



Highways travel through agricultural areas of the valley floor to the foothills and the Sierra Nevada Range. Additionally, the General Plan Update identifies preserving the rural agricultural character of SR 99 and SR 65 as valuable to the County and communities.”<sup>4</sup> The Tulare County General Plan 2030 Update (at Figure 7-1) has identified Avenue 280/Caldwell Avenue, including areas west of SR 99, as a County Scenic Road.<sup>5</sup>

### Tulare County General Plan Policies

The Tulare County General Plan has several policies that apply to projects within the County of Tulare. General Plan policies that relate to the proposed Project are listed below.

#### **SL-1.1 - Natural Landscapes**

During review of discretionary approvals, including parcel and subdivision maps, the County shall as appropriate, require new development to not significantly impact or block views of Tulare County’s natural landscapes. To this end, the County may require new development to:

1. Be sited to minimize obstruction of views from public lands and rights-of- ways,
2. Be designed to reduce visual prominence by keeping development below ridge lines, using regionally familiar architectural forms, materials, and colors that blend structures into the landscape,
3. Screen parking areas from view,
4. Include landscaping that screens the development,
5. Limit the impact of new roadways and grading on natural settings, and
6. Include signage that is compatible and in character with the location and building design

#### **SL-1.2 - Working Landscapes**

The County shall require that new non-agricultural structures and infrastructure located in or adjacent to croplands, orchards, vineyards, and open rangelands be sited so as to not obstruct important viewsheds and to be designed to reflect unique relationships with the landscape by:

1. Referencing traditional agricultural building forms and materials,
2. Screening and breaking up parking and paving with landscaping, and
3. Minimizing light pollution and bright signage.

**LU-5.3 Storage Screening** - The County shall require adequate landscaping and screening of industrial storage areas to minimize visual impacts and enhance the quality of the environment.

**LU-7.6 Screening** - The County shall require landscaping to adequately screen new industrial uses to minimize visual impacts.

**ERM-1.15 Minimize Lighting Impacts** - The County shall ensure that lighting associated with new development or facilities (including street lighting, recreational facilities, and parking) shall

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<sup>4</sup> Tulare County General Plan 2030 Update, August 2012. Recirculated Draft EIR Page 3.1-11. Accessed in July 2019 at: <http://generalplan.co.tulare.ca.us/documents/generalplan2010/RecirculatedDraftEIR.pdf>.

<sup>5</sup> Tulare County General Plan 2030 Update, August 2012. Goals and Policies Report Figure 7-1. Page 7-5. Accessed in July 2019 at: <http://generalplan.co.tulare.ca.us/documents/GP/002Board%20of%20Supervisors%20Materials/001BOS%20Agenda%20Items%20-%20Public%20Hearing%20August,%202012/008Attachment%20G.%20Public%20Comment,%20%20Staff%20Matrix,%20and%20Responses/004Item%204.%20GPU%20AMUS/14-CHP%207-Scenic%20Landscapes.pdf>



be designed to prevent artificial lighting from illuminating adjacent natural areas at a level greater than one-foot candle above ambient conditions.

## IMPACT EVALUATION

Except as provided in Public Resources Code Section 21099, would the project:

a) **Have a substantial adverse effect on a scenic vista?**

Project Impact Analysis:

***Less Than Significant Impact With Mitigation***

The Project site is located in the Valley portion of the County. There are no scenic vistas on the proposed Project site or in the vicinity. Portions of State Routes (SR) 190, 198, and 180 are eligible for state scenic highway designation, but are not located in or near the Project site. The Project will include a silos approximately 50' in height but will be setback no less than approximately 200 feet from Avenue 280 and screened with a berm with vegetation (trees and shrubs) at the top of the berm to effectively minimize line-of-sight views from the roadway (see example in **Figure 3.1-3**). The proposed Project will be required to implement **Mitigation Measures 3.1-1** and **3.1-2** as project design features. As such, the Project will result in a ***Less Than Significant Impact With Mitigation*** related to this Checklist Item.

Cumulative Impact Analysis:

***Less Than Significant Impact With Mitigation***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County General Plan 2030 Update, Tulare County General Plan Background Report, and the Tulare County General Plan 2030 Update EIR.

There are no scenic vistas on or near the Project site; as such there will be a ***Less Than Significant Cumulative Impact With Mitigation*** related to this Checklist Item.

Mitigation:

***See Mitigation Measures 3.1-1 and 3.1-2.***

Mitigation Measures 3.1-1 and 3.1-2 will be required as project design features for the Project.

**3.1-1** Landscape screening (with a 5-year grow out schedule to maturity) shall be placed and effectively maintained along the periphery of the Project site to sufficiently screen the Project's structures and activities from the public right-of-way and views from Avenue 280 and along the western, eastern, and southern boundaries of the Project. A landscaping plan shall be submitted to the Planning Department for review and approval prior to the issuance of building permits.

**3.1-2** The silos shall be painted in earth-toned colors to allow them to blend into the surrounding scenery to the fullest extent.







**b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

Project Impact Analysis:

***Less Than Significant Impact With Mitigation***

There are no designated state scenic highways in the Project vicinity or in Tulare County. Portions of SR 190, 198, and 180 are eligible for state scenic highway designation, but are not located in or near the Project site. The Tulare County 2030 General Plan also lists a series of Scenic County Routes, several of which are located in agricultural areas. Tulare County General Plan 2030 Update, General Plan Policy SL-2.1, calls for the establishment of a system of County scenic routes through the County. General Plan Figure 7-1 shows potential roadways within the County that could be designated as County Scenic Routes. The policy further states that views along County Scenic Routes should be protected by requiring development located within County scenic route corridors to adhere to local design guidelines and standards. General Plan Figure 7-1 shows the segment of Avenue 280/Caldwell Avenue extending from the Kings County line eastward to Mooney Boulevard in Visalia as a potential County Scenic Route. It is noted that the County Scenic Routes shown in General Plan Figure 7-1 have not yet been formally nominated for designation as County Scenic Routes. However, the Project includes substantial landscape treatment within the Project's front setback areas along Avenue 280/Caldwell Avenue, and along the western, eastern, and southern boundaries of the Project. Implementation of Mitigation Measures 3.1-1 and 3.1-2 as project design features of the special use permit process and requiring structures to be set back a minimum of 25 feet from Avenue 280 would minimize potential impact to the proposed County Scenic Route. As such, there will be ***Less Than Significant Impact With Mitigation*** to this Checklist Item.

Cumulative Impact Analysis:

***Less Than Significant Impact With Mitigation***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County General Plan 2030 Update, Tulare County General Plan Background Report, and the Tulare County General Plan 2030 Update EIR.

There will be ***Less Than Significant Cumulative Impacts With Mitigation*** because the proposed Project will not create visual impacts to State Scenic Highways or Scenic County Routes.

Mitigation:

***See Mitigation Measures 3.1-1 and 3.1-2.***

Conclusion:

***Less Than Significant Impact With Mitigation***

As noted earlier, ***Less Than Significant Impact With Mitigation Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.



- c) **Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

Project Impact Analysis:

***Less Than Significant Impact With Mitigation***

Agricultural landscapes throughout Tulare County are typically considered scenic and visually appealing. The Project site is located along a County Scenic County Road adjacent to an area with large agricultural fields under cultivation (e.g., row crops and orchards) which are generally considered visually pleasing.

The applicant of the proposed Project seeks a Special Use Permit (SUP) which will allow permanent establishment and use of a hot-mix asphalt batch plant, concrete batch plant, asphalt recycling operations on the site. The import, storage, processing, production, export, etc. of the operation will include the use of silos, propane gas storage tanks, oil storage tanks, asphalt and concrete storage piles, recycled base pile, truck parking area, storm water basin, and an office. In addition, the Project would include a renovation of a 900 square foot office building; implement production of approximately 48 truckloads per day of asphalt; 80 truckloads per day of concrete, 10 truckloads per day of recycled base, typically operate five (but not more than six) days per week (typically 6:00 A.M. to 4:00 P.M. weekdays and 7:00 A.M. to 12:00 P.M. (noon) on Saturdays), and conduct retail/commercial sales of asphalt, and other components of the Project. To mitigate potential degradation of views of the proposed Project site from Avenue 280, **Mitigation Measures 3.1-1 and 3.1-2** (which will be incorporated into the Project as project design features) are outlined to provide screening of the site and painting the silos. A Landscaping Plan must be approved by the County and implemented prior to opening day of the Project.

At full build-out, implementation of the proposed Project will alter the visual character of the site from predominantly agricultural-related uses (i.e., row crops, orchards, and dairy uses as indicated in Item a), landscaping will screen the structures to minimize significant viewing impacts and structures will be set-back a minimum of 25 feet from Avenue 280. As such, the proposed Project will not significantly visually degraded the character or quality to the Project site or to the properties near and around the Project site. Therefore, the Project would result in ***Less Than Significant Impact With Mitigation*** on the visual character within or adjacent to the Project site.

Cumulative Impact Analysis:

***Less Than Significant Impact With Mitigation***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County General Plan 2030 Update, Tulare County General Plan Background Report, and the Tulare County General Plan 2030 Update EIR.



As the proposed Project would not create any project specific visual impacts, ***Less Than Significant Cumulative Impacts*** on visual character will occur.

Mitigation: ***See Mitigation Measures 3.1-1 and 3.1-2.***

Conclusion: ***Less than Significant Impact With Mitigation***

The proposed Project will have ***Less Than Significant Project-specific and Cumulative Impact With Mitigation*** related to this Checklist Item.

**d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

Project Impact Analysis: ***Less Than Significant Impact***

Lighting impacts are often associated with the use of artificial light during the evening and nighttime hours. Impacts could potentially include light emanating from building interiors (seen through windows) and light from exterior sources, such as security lighting, street lighting, etc. Glare is typically a daytime occurrence caused by light reflecting off highly polished surfaces such as window glass or polished metallic surfaces.

The proposed Project will likely include security lighting and other minimal lighting (e.g., near doorways during evening hours, vehicle parking areas, safety lighting to avoid collisions with on-site equipment, machinery, or materials piles, etc.). As no work will occur during the evening, the use of outdoor lighting will be minimal. Other than typical daylight reflecting from the on-site office windows, no other sources of glare (such as light reflecting off highly polished surfaces) would occur as a result of the Project. Further, the use of applicable County policies noted earlier would minimize or avoid potential lighting impacts by the Project. Therefore, ***Less Than Significant Impacts*** to this Checklist Item will occur.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County General Plan 2030 Update, Tulare County General Plan Background Report, and the Tulare County General Plan 2030 Update EIR.

As noted earlier, project design features (i.e., landscaped screening), meeting setback requirements, complying with height limitations, no evening work hours, and minimal exterior lighting will minimize light spillage or other lighting impacts. As such, the proposed Project's cumulative incremental increase of light and glare will be less than significant. As such, ***Less Than Significant Cumulative Impacts*** related to this Checklist Item will occur.

Mitigation: ***None Required.***



Conclusion:

***Less Than Significant Impact***

As noted earlier, ***Less Than Significant Project-specific and Cumulative Impacts*** related to this Checklist Item will occur.

## DEFINITIONS

**Scenic landscapes** - Landscapes that include agricultural lands, woodlands, forestlands, watercourses, mountains, meadows, structures, communities, and other types of scenery that contribute to the visual beauty of Tulare County.

**Natural Landscapes** - An expanse of naturally-formed scenery that contribute to the visual beauty of Tulare County.

**Working Landscapes** - These are landscapes shaped by human activities that produce economic commodities such as agricultural lands, ranch lands, and timber lands. They may also include picturesque commercial districts in communities, crops, orchards, agricultural structures, stands of timber, and canals.”

**Viewshed** - An area of land, water, or other environmental features that is visible from a fixed vantage point. Viewsheds tend to be areas of particular scenic or historic value that are deemed worthy of preservation against development or other change. The preservation of viewsheds is typically the goal in the designation of open space areas, green belts, and urban separators.

## REFERENCES

California Department of Transportation. Officially Designated State Scenic Highways.  
<http://www.dot.ca.gov/hq/LandArch/scenic/schwy.htm>. Accessed March 2015.

Tulare County General Plan 2030 Update, August 2012. Recirculated Draft EIR. Accessed July 2019 at: <http://generalplan.co.tulare.ca.us/documents.html> then locate “Recirculated Draft Environmental Impact Report February 2010 Draft”, select “Recirculated DEIR”.

Tulare County General Plan 2030 Update, August 2012. Goals and Policies Report Figure 7-1. Page 7-5. Accessed in July 2019 at: <http://generalplan.co.tulare.ca.us/documents.html> then locate Part I Goals and Policies Report. **Component C** 7. Scenic Landscapes.



# Agricultural Land and Forestry Resources

## Chapter 3.2

### SUMMARY OF FINDINGS

The proposed Project will result in *Less Than Significant Impact With Mitigation* to Agricultural Land and Forestry Resources. No mitigation measures will be required. A detailed review of potential impacts is provided in the analysis below.

### INTRODUCTION

#### CEQA Requirements for Evaluation of Impacts to Agricultural Land and Forestry Resources

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts to agricultural land and forestry resources. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in 15126.2 a), “[a]n EIR shall identify and focus on the significant environmental effects of the proposed Project. In assessing the impact of a proposed Project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the Project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the Project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision will have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.”

The “Environmental Setting” provides a description of the Agricultural Lands and Forestry Resources in the County. The “Regulatory Setting” provides a description of applicable Federal, State and Local regulatory policies that were developed in part from information contained in the Tulare County 2030 General Plan, the Tulare County General Plan Background Report and/or



the Tulare County General Plan Revised DEIR incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the proposed Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

## **CEQA THRESHOLDS OF SIGNIFICANCE**

The Department of Conservation identifies the location of prime Agricultural Land resource areas and Williamson Act Contract lands. Thresholds of potential significance will include the following:

- Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
- Conflict with Williamson Act Contracts
- Convert Forest Land

## **ENVIRONMENTAL SETTING**

“Tulare County exhibits a diverse ecosystems landscape created through the extensive amount of topographic relief (elevations range from approximately 200 to 14,000 feet above sea level). The County is essentially divided into three eco-regions. The majority of the western portion of the County comprises the Great Valley Section, the majority of the eastern portion of the County is in the Sierra Nevada Section, and a small section between these two sections comprises the Sierra Nevada Foothill Area.”<sup>1</sup>

### ***State of California***

#### **State of California Agricultural Production**

“The sales value generated by California agriculture decreased by 16.8% between the 2014 and 2015 crop years. The State’s 77,500 farms and ranches received \$47.1 billion for their output, down from the \$56.6 billion received in 2014. California’s revenue was led by the dairy industry, followed by almonds and grapes.

Almond cash receipts decreased to \$5.33 billion. Cash receipts fell by 27.9 percent due to a fall in prices from \$4.00 per pound in 2015. Grape production generated \$4.95 billion in cash receipts in 2015, down 5.4 percent from 2014. Production decreased by 1.3 percent from 2014, and prices received by growers decreased from \$756 per ton of grapes in 2014 to \$724 per ton in 2015. Revenue generated from cattle was \$3.40 billion, a 9.0 percent decrease from the 2014 record high of \$3.73 billion.

The dairy industry, California’s leading commodity in cash receipts, generated \$6.23 billion for milk production in 2015, down 32.8 percent from 2014. Milk production decreased by 3.4 percent, and milk prices received by producers decreased from \$22.12 per hundred pounds of

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<sup>1</sup> CDFA. Agricultural Statistical Overview. <https://www.cdfa.ca.gov/statistics/PDFs/2016Report.pdf>. Page 2



milk sold in 2014 to \$15.40 in 2015. As the leading dairy producing state in the country, California produced nearly 20 percent of the nation's supply in 2015.

California remained the leading state in cash farm receipts in 2015 with combined commodities representing nearly 13 percent of the U.S. total. California's leading crops remained fruits, nuts and vegetables."<sup>2</sup>

### State of California Farmland Conversion

Of California's approximately 100 million acres of land, 43 million acres are used for agriculture. Of this, 16 million acres are grazing land and 27 million acres are cropland. Only about nine million acres of irrigated land are considered to be Prime, Unique or of Statewide Importance.<sup>3</sup>

"Irrigated farmland in California decreased by more than 91 square miles (58,587 acres) between 2010 and 2012. The highest-quality agricultural soils, known as Prime Farmland, comprised 81 percent of the loss. Urban development, which totaled 29,342 acres, decreased by 34 percent compared with the 2010 update. The 2012 urban land increase was the lowest recorded in the program's history, reflecting impacts of the recent recession. Of the nearly 46 square miles of new Urban and Build-up Land in the state, 43 percent occurred in the Southern California region.

Land was removed from irrigated categories – to uses aside from urban – at a rate of 41 percent lower than compared with the prior update (252,473 acres in 2010 and 149,577 acres in 2012). Land idling and reversion to dry farming were responsible for the majority of this type of conversion. The southern San Joaquin Valley and counties in the Sacramento-San Joaquin Delta were most impacted by land idling. Three counties had 10,000 or more acres of this conversion type: Fresno, Kern, and Kings."<sup>4</sup>

### ***Tulare County***

#### Agricultural Productivity

The Project site is located in the San Joaquin Valley portion of Tulare County. This area is characterized by rich, highly productive farmland. Agriculture is the most important sector in Tulare County's economy, and agriculture and related industries make Tulare County the most productive agricultural county in the United States, according to Tulare County Farm Bureau statistics.<sup>5</sup> "Agricultural lands (crop and commodity production and grazing) also provide the

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<sup>2</sup> United States Department of Agriculture. California Agricultural Statistics Review, 2015-2016 Crop Year. [https://www.nass.usda.gov/Statistics\\_by\\_State/California/Publications/California\\_Ag\\_Statistics/Reports/2015cas-all.pdf](https://www.nass.usda.gov/Statistics_by_State/California/Publications/California_Ag_Statistics/Reports/2015cas-all.pdf). Accessed July 2019.

<sup>3</sup> California Department of Food and Agriculture. AgVision 2030 White Paper. Agricultural Land Loss & Conversion. July 2009. [http://www.cdffa.ca.gov/agvision/docs/Agricultural\\_Loss\\_and\\_Conservation.pdf](http://www.cdffa.ca.gov/agvision/docs/Agricultural_Loss_and_Conservation.pdf). Accessed July 2019.

<sup>4</sup> California Department of Conservation. 2015 California Farmland Conversion Report. [http://www.conservation.ca.gov/dlrp/fmmp/Pages/FMMP\\_2010-2012\\_FCR.aspx](http://www.conservation.ca.gov/dlrp/fmmp/Pages/FMMP_2010-2012_FCR.aspx). Accessed July 2019.

<sup>5</sup> Tulare County Farm Bureau. Tulare County Agricultural Facts. <http://www.tulcofb.org/index.php?page=agfacts>. Accessed July 2019.

<sup>6</sup> Tulare County Agricultural Commissioner. 2017 Tulare County Annual Crop and Livestock Report. <https://agcomm.co.tulare.ca.us/ag/assets/File/Crop%20report%202017%20Final.pdf>. Accessed July 2019.



County's most visible source of open space lands. As such, the protection of agricultural lands and continued growth and production of agriculture industries is essential to all County residents."<sup>7</sup>

The *2018 Tulare County Annual Crop and Livestock Report* stated "Tulare County's total gross production value for 2018 as \$7,213,303,400. This represents an increase of \$173,374,400 or 2.5% above 2017's values of \$7,213,303,000. Milk continues to be the leading agricultural commodity in Tulare County; with a total gross value of \$1,683,747,000, a decrease of \$93,108,000 or 5.2%. Milk represents 23.5% of the total crop and livestock value for 2018. Total milk production in Tulare County increased by 1%. Livestock and Poultry's gross value of \$694,538,000 represents a decrease of 1% below 2017, mostly due to lower per unit value for cattle."<sup>8</sup>

"Tulare County's agricultural strength is based on diversity of the crops produced. The 2018 report covers more than 120 different commodities, 45 of which had a gross value in excess of \$1,000,000. Although individual commodities may experience difficulties from year to year, Tulare County continues to produce high-quality crops that provide food and fiber to more than 90 countries throughout the world."<sup>9</sup>

#### Tulare County Farmland Conversion

In line with the State of California, Tulare County has also seen a decrease in FMMP-designated farmland, with the total inventoried land down over one percent, as seen in **Table 3.2-1** between the years 1998 and 2012. Between the years 2010 and 2012, Tulare County lost 13,488 acres of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland.<sup>10</sup>

Much of Tulare County's farmland is under California Land Conservation Act (Williamson Act) contracts, a program designed to prevent premature conversion of farmland to residential or other urban uses. As shown in **Table 3.2-2**, as of January 1, 2014 there were 1,081,936 acres of farmland under Williamson Act or Farmland Security Zone contracts in Tulare County. This total includes 565,190 acres of Williamson Act prime, 505,654 acres nonprime, and 11,1101 acres of Farmland Security Zone lands (The acreage totals also include 3,838 acres Williamson Act prime contracted land in nonrenewal and 7,301 acres of Williamson Act nonprime in nonrenewal.).<sup>11</sup> The proposed Project site is not under a Williamson Act contract.

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<sup>7</sup> Tulare County General Plan 2030 Update, August 2012. Page 3-4.

<sup>8</sup> 2018 Tulare County Annual Crop and Livestock Report, August 2019. Cover letter from Tom Tucker, Agricultural Commissioner. <https://agcomm.co.tulare.ca.us/ag/index.cfm/standards-and-quarantine/crop-reports1/crop-reports-2011-2020/2018-crop-report/>. Accessed October 2019.

<sup>9</sup> Ibid.

<sup>10</sup> California Department of Conservation. California Farmland Conversion Report 2015. September. Table A-44.

[http://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2010-2012/FCR/FCR%202015\\_complete.pdf](http://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2010-2012/FCR/FCR%202015_complete.pdf). Accessed November 2017.

<sup>11</sup> Tulare County Subvention Report "California Open Space Subvention Act Program Survey for Fiscal Year 2012-2013" (submitted to Department of Conservation November 21, 2012)



Draft Environmental Impact Report  
Dunn Asphalt and Concrete Batch Plant  
SCH #: 2019011039

**Table 3.2-1  
Tulare County FMMP-Designated Land (1998-2012)**

Farmland Category	Total Acres Inventoried						
	1998 <sup>12</sup>	2000 <sup>13</sup>	2002 <sup>14</sup>	2004 <sup>15</sup>	2006 <sup>16</sup>	2010 <sup>17</sup>	2012 <sup>18</sup>
Prime Farmland	396,130	393,030	387,620	384,340	379,760	370,249	368,527
Farmland of Statewide Importance	357,220	351,720	345,760	339,580	332,160	323,599	321,296
Unique Farmland	11,790	11,720	12,750	12,530	12,220	11,593	11,474
<b>Important Farmland Subtotal</b>	<b>765,140</b>	<b>756,470</b>	<b>746,130</b>	<b>736,450</b>	<b>724,140</b>	<b>705,441</b>	<b>701,297</b>
Farmland of Local Importance	110,040	124,140	126,820	137,440	143,830	154,550	158,823
Grazing Land	439,960	434,050	440,550	440,620	440,140	440,042	439,940
<b>Total</b>	<b>1,315,140</b>	<b>1,314,660</b>	<b>1,313,500</b>	<b>1,314,560</b>	<b>1,308,110</b>	<b>1,300,033</b>	<b>1,300,060</b>

**Table 3.2-2<sup>19</sup>:  
2014 Tulare County Lands under Williamson Act or Farmland Security Zone Contracts**

Acres	Category
565,190	*Total prime = Prime active + NR Prime
505,645	*Total Nonprime = Nonprime active + NR Prime
11,101	Farmland Security Zone
1,081,936	Total Acres in Williamson Act and Farmland Security Zone contracts
*Prime total includes 3,838 acres in nonrenewal; Nonprime total includes 7,301 acres in nonrenewal	

### Important Farmland Trends

“For Tulare County and the surrounding region, the reported major cause of this conversion is the downgrading of important farmlands to other agricultural uses (e.g., such as expanded or new livestock facilities, replacing irrigated farmland with non-irrigated crops, or land that has been fallow for six years or longer).”<sup>20</sup>

### ***Proposed Project Site***

The 20-acre proposed Project has been in some form of active agricultural production (typically row crops such as corn, wheat, etc., since 1969. Also, the site was formerly used for ginning

<sup>12</sup> Tulare County General Plan 2030 Update Recirculated Draft EIR Sch#2006041162. Table 3.10-4.

<sup>13</sup> Ibid.

<sup>14</sup> Op. Cit.

<sup>15</sup> Op. Cit.

<sup>16</sup> Op. Cit.

<sup>17</sup> California Department of Conservation, Division of Land Resource Protection. Farmland Mapping and Monitoring Program California Farmland Conversion Report 2015. [http://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2010-2012/FCR/FCR%202015\\_complete.pdf](http://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2010-2012/FCR/FCR%202015_complete.pdf). Accessed July 2019.

<sup>18</sup> Ibid.

<sup>19</sup> Op. Cit.

<sup>20</sup> Tulare County General Plan 2030 Update, Recirculated DEIR (SCH # 2006041162). February. 2010. Page 3.10-13.



cotton. When not in agricultural production, the site is predominantly open/vacant land and also includes a former residence (which will be used as an office) and a pole barn (which will be used as a storage area). Land Classifications as defined by the FMMP and Soils as classified by the United States Department of Agriculture, Natural Resource Conservation Service are discussed in this section too.

### Land Classifications

According to the FMMP<sup>21</sup>, the Project site is mapped as Prime Farmland. There are two criteria which ***both*** (emphasis added) must occur, 1) the land must be irrigated and; 2) the soils must meet the physical and chemical criteria determined by USDA NRCS. The site meets the soil criteria; however, the site does not meet the irrigated land criteria. The site previously relied on subsurface (well drawn) water for irrigation purposes when it was agriculturally productive. As it is no longer agriculturally productive, it is no longer drawing well water for irrigation purposes. As such, the Prime Farmland classification no longer applies as the site does not meet the irrigated land criteria.

### Soils

The 20-acre proposed Project site is composed of two different soil types, as depicted in **Table 3.2-3**.

<b>Table 3.2-3 Project Site Soils</b>				
<b>Map Unit Symbol</b>	<b>Soil Type</b>	<b>Acres</b>	<b>Site %</b>	<b>Characteristics</b>
101	Akers-Akers	17.6	86.4 (south part of the site)	Saline-Sodic complex, 0-2% slopes, alluvium derived from granitic rock sources, well drained, no frequency of ponding, high available water storage profile.
130	Nord fine sandy loam	2.8	13.6 (north part of the site)	0-2% slopes, alluvium derived mixed sources, well drained, no frequency of ponding, low ability to store water.

*See: <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>*

### Storie Index

The California Revised Storie Index is a soil rating based on soil properties that govern a soil's potential for cultivated agriculture in California. The Storie Index assesses the productivity of a soil from the following four characteristics: Factor A, degree of soil profile development; factor B, texture of the surface layer; factor C, slope; and factor X, manageable features, including drainage, microrelief, fertility, acidity, erosion, and salt content. A score ranging from 0-100 percent is determined for each factor, and the scores are then multiplied together to derive an index rating. The ratings have been combined into six grade classes as follows: Grade 1 (excellent), 100 to 80; grade 2 (good), 79 to 60; grade 3 (fair), 59 to 40; grade 4 (poor), 39 to 20;

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<sup>21</sup> California Department of Conservation. Farmland Mapping and Monitoring Program. Tulare County. [http://ftp.consrv.ca.gov/pub/dlrp/fmmp/pdf/2014/tul14\\_no.pdf](http://ftp.consrv.ca.gov/pub/dlrp/fmmp/pdf/2014/tul14_no.pdf). Accessed October 2017.



grade 5 (very poor), 19 to 10; and grade 6 (nonagricultural), less than 10. However, as the site is no longer agriculturally produce, the Storie Index does not apply to this Project.

### Soil Capability Class

Another way of measuring the suitability of soils for most field crops is by determining the soil capability class. In this system, soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. They are also classified based on whether they are irrigated or non-irrigated. Capability classes are designated by the numbers 1 through 8. The Project site is primarily Non-irrigated Capability Class 4, which means that soils have severe to very severe limitations that restrict the choice of plants used, or that requires moderate conservation practices, or both<sup>22</sup>.

### ***Forest Lands***

“Timberlands that are available for harvesting are located in the eastern portion of Tulare County in the Sequoia National Forest. Hardwoods found in the Sequoia National Forest are occasionally harvested for fuel wood, in addition to use for timber production. Since most of the timberlands are located in Sequoia National Forest, the U.S. Forest Service has principal jurisdiction, which encompasses over 3 million acres. The U.S. Forest Service leases these federal lands for timber harvests.”<sup>23</sup> As the proposed Project is located on the Valley floor, there is no timberland or forest in the Project vicinity.

## **REGULATORY SETTING**

### ***Federal Agencies & Regulations***

#### Federal Protection Policy Act (FPPA)

“The FPPA is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that to the extent possible federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland. Federal agencies are required to develop and review their policies and procedures to implement the FPPA every two years. The FPPA does not authorize the Federal Government to regulate the use of private or nonfederal land or, in any way, affect the property rights of owners. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land.”<sup>24</sup>

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<sup>22</sup> *Geology and Soils Report for Proposed Concrete and Asphalt Batch Plant*. September 2018. Appendix A. U.S.D.A. NRCS Custom Soils Report for Tulare County, Western Part, California Dunn's Construction. Pages 13 and 16. Prepared by Mason GeoScience and included in Appendix “D” of this document.

<sup>23</sup> Tulare County General Plan 2030 Update, Background Report, February 2010. Page 4-17. Accessed July 2019 at: <http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/BackgroundReport.pdf>.

<sup>24</sup> United States Department of Agriculture. Natural Resources Conservation Service. <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/>. Accessed July 2019.



### U.S. Forest Service

“The U.S. Department of Agriculture Forest Service is a Federal agency that manages public lands in national forests and grasslands. The Forest Service is also the largest forestry research organization in the world, and provides technical and financial assistance to state and private forestry agencies. Gifford Pinchot, the first Chief of the Forest Service, summed up the purpose of the Forest Service - "to provide the greatest amount of good for the greatest amount of people in the long run."”<sup>25</sup>

### ***State Agencies & Regulations***

#### California Department of Conservation: Farmland Mapping and Monitoring Program

“The California Department of Conservation (DOC), under the Division of Land Resource Protection, has developed the Farmland Mapping and Monitoring Program (FMMP), which monitors the conversion of the state’s farmland to and from agricultural use. Data is collected at the county level to produce a series of maps identifying eight land use classifications using a minimum mapping unit of 10 acres. The program also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The program maintains an inventory of state agricultural land and updates the “Important Farmland Series Maps” every two years.”<sup>26</sup>

#### Williamson Act: California Land Conservation Act of 1965

“The California Land Conservation Act (CLCA) of 1965, Sections 51200 et seq. of the California Government Code, commonly referred to as the “Williamson Act”, enables local governments to restrict the use of specific parcels of land to agricultural or related open space use. Landowners enter into contracts with participating cities and counties and agree to restrict their land to agriculture or open space use for a minimum of ten years. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming and open space uses as opposed to full market (speculative) value. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971.”<sup>27</sup>

#### California Department of Forestry and Fire Protection (CAL FIRE)

“CAL FIRE's mission emphasizes the management and protection of California's natural resources; a goal that is accomplished through ongoing assessment and study of the State's natural resources and an extensive CAL FIRE Resource Management Program. CAL FIRE oversees enforcement of California's forest practice regulations, which guide timber harvesting on private lands. Reviews and inspections ensure protection of watershed and wildlife, as well as renewal of timber resources. Department foresters and fire personnel work closely to encourage

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<sup>25</sup> U.S. Forest Service, “About Us – Meet the Forest Service”, <http://www.fs.fed.us/aboutus/meetfs.shtml>. Accessed July 2019.

<sup>26</sup> Tulare County General Plan 2030 Update, Background Report. February 2010. Page 4-12.

<sup>27</sup> Ibid. 4-13.



and implement fuels management projects to reduce the threat of uncontrolled wildfires. CAL FIRE Foresters promote conservation and the importance of our trees and forests to Californians of all ages. CAL FIRE manages eight Demonstration State Forests that provide for commercial timber production, public recreation, and research and demonstration of good forest management practices. Additional forestry programs include urban forestry, archaeology, pest management, etc.<sup>28</sup>

### ***Local Policy & Regulations***

#### **Tulare County General Plan Policies**

The Tulare County General Plan 2030 Update (TCGP) has policies that apply to projects within Tulare County that serve to protect farmland. General Plan policies that are generally applicable to the proposed Project are listed below:

**AG-1.1 - Primary Land Use** - The County shall maintain agriculture as the primary land use in the valley region of the County, not only in recognition of the economic importance of agriculture, but also in terms of agriculture's real contribution to the conservation of open space and natural resources.

**AG-1.6 Conservation Easements** - The County shall consider developing an Agricultural Conservation Easement Program (ACEP) to help protect and preserve agricultural lands (including "Important Farmlands"), as defined in this Element. This program may require payment of an in-lieu fee sufficient to purchase a farmland conservation easement, farmland deed restriction, or other farmland conservation mechanism as a condition of approval for conservation of important agricultural land to non-agricultural use. If available, the ACEP shall be used for replacement lands determined to be of statewide significance (Prime or other Important Farmlands), or sensitive and necessary for the preservation of agricultural land, including land that may be a part of a community separator as part of a comprehensive program to establish community separators. The in-lieu fee or other conservation mechanism shall recognize the importance of land value and shall require equivalent mitigation..

**AG-1.7 Preservation of Agricultural Lands** - The County shall promote the preservation of its agricultural economic base and open space resources through the implementation of resource management programs such as the Williamson Act, Rural Valley Lands Plan, Foothill Growth Management Plan or similar types of strategies and the identification of maximum growth parameters for all urban areas located in the County.

**AG-1.14 Right-to-Farm Noticing** - The County shall condition discretionary permits for special uses and residential development within or adjacent to agricultural areas upon the recording of a Right-to-Farm Notice (Ordinance Code of Tulare County, Part VII, Chapter 29, Section 07-29-1000 and following), which is an acknowledgement that residents in the area should be prepared to accept the inconveniences and discomfort associated with normal farming activities and that

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<sup>28</sup> California Department of Forestry and Fire Protection. About Cal Fire. <https://www.fire.ca.gov/about-us/>. Accessed January 2019.



an established agricultural operation shall not be considered a nuisance due to changes in the surrounding area.

**AG-1.17 Agricultural Water Resources** - The County shall seek to protect and enhance surface water and groundwater resources critical to agriculture.

Tulare County Agricultural Conservation Easement Program

The Tulare County Agricultural Conservation Easement Program (ACEP, see Appendix “A”) was established to allow the use of agricultural easements to reduce or mitigate any significant impacts resulting from the conversion of certain agricultural land to non-agricultural uses. Resolution 2016-0323, adopted by the Tulare County Board of Supervisors on May 3, 2016, requires the use of farmland conservation easements or other farmland conservation mechanisms for projects requiring County discretionary land use entitlements and the conversion of five (5) or more acres of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses.

“CRITERIA FOR AN EASEMENT: A "Farmland conservation easement" means for the purposes of this ACEP, an easement over agricultural land for the purpose of restricting its use for the term set forth in this resolution for primarily agricultural and agricultural-compatible uses. Any easement offered or used under this program shall, at a minimum, meet these criteria:

- A) Preferably the easement will be located in Tulare County but other suitable land may be encumbered subject to approval by the Board of Supervisors.
- B) The easement will include Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency.
- C) The land placed under the easement must be of substantially the same quality, have or could acquire access to water, and could otherwise be feasibly cultivated.
- D) The land placed under the easement must be at a minimum of a one to one (1:1) ratio or its functional equivalent to the loss of defined agricultural lands mitigated.”<sup>29</sup>

## IMPACT EVALUATION

Tulare County, as a Lead Agency, typically bases a determination of agricultural resources significance on the thresholds established by the California Environmental Quality Act (CEQA) Guidelines. The Environmental Checklist Form of the CEQA Guidelines contains a list of impacts that may be deemed potentially significant. The Lead Agency should address questions from this checklist that are relevant to a project’s environmental effects. The following significance thresholds are contained in Appendix G of the CEQA Guidelines.

**In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon**

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<sup>29</sup> Tulare County Agricultural Conservation Easement Program. Pages 6 to 7.



measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

Project Impact Analysis:                      ***Less Than Significant Impact With Mitigation***

Pursuant to CEQA Statute §21060.1, “Agricultural land” means Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, as defined by the United States Department of Agriculture land inventory and monitoring criteria.

The 20-acre proposed Project site is currently being farmed with row crops (the last grown crop was wheat). The site is immediately adjacent to agricultural uses (e.g., orchard, row crops and dairying lands) within the County of Tulare. According to the FMMP<sup>30</sup>, the entire 20-acre proposed Project site is mapped as containing Prime Farmland.

Also, the Project must comply with Tulare County General Plan policy AG-1.6 Conservation Easements for conservation of important agricultural land to non-agricultural use through an in-lieu fee or other conservation mechanism. Implementation of **Mitigation Measure 3.2-1** will reduce the Project’s impact to Less Than Significant. Therefore, a ***Less Than Significant Impact With Mitigation*** related to this Checklist Item will occur.

Cumulative Impact Analysis:                      ***Less Than Significant Impact With Mitigation***

The geographic area of this cumulative analysis is the entire State of California. This cumulative analysis is based on the Statewide FMMP map. As indicated in the Tulare County General Plan 2030 Update Recirculated Environmental Impact Report, “The loss of agricultural land within the County as a result of urban development is part of an overall trend within the San Joaquin Valley and the County will continue to face development pressure in the foreseeable future. As more fully described in Section 3.10, “Agricultural Resources”, the proposed project [Tulare County General Plan 2030 Update] does include several policies stating that the County will work at a regional level to control the conversion of agricultural uses. However, since the County is projected to continue to urbanize, the loss of agricultural lands as a result of the proposed project would contribute considerably to a significant and unavoidable cumulative impact to agricultural resources.”<sup>31</sup> As shown in **Table 3.2-2**, of the 1,071,835 acres of Williamson Act lands in Tulare County, 565,190 acres (52.7%) are in Prime Lands. This Project; however, is not obligated by a Williamson Act Contract and thus would not account for any loss of Prime Lands under a Williamson Act Contract. As noted above, the inevitable loss of agricultural land is anticipated and has been

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<sup>30</sup> California Department of Conservation. Farmland Mapping and Monitoring Program. Tulare County. [ftp://ftp.consrv.ca.gov/pub/dlrp/fmmp/pdf/2014/tul14\\_no.pdf](ftp://ftp.consrv.ca.gov/pub/dlrp/fmmp/pdf/2014/tul14_no.pdf). Accessed July 2019.

<sup>31</sup> Tulare County General Plan 2030 Update Recirculated Environmental Impact Report. Page 5-12. Accessed July 2019 at: <http://generalplan.co.tulare.ca.us/documents.html> then access by clicking “Recirculated DEIR”



accounted in the Tulare County General Plan; therefore, this Project's approximately 20 acres will not contribute to or account in any change beyond an impact that has been previously addressed. Further, removing the Project site's 20 acres of agricultural land would result in a loss of 0.000018% of Prime Lands, but 0% of Williamson Act lands. As such, a ***Less Than Significant Cumulative Impact With Mitigation*** related to this Checklist Item will occur.

Mitigation:

***See Mitigation 3.2-1.***

- 3.2-1** The applicant will be required to create an agricultural land conservation easement at a ratio of 1 acre of developed property for 1 acre of conserved agricultural land (a 1:1 ratio). This amount of 1:1 will be represented by 19.33 acres within the County. Any replacement acreage will be to the satisfaction of the Planning Director of Tulare County. The applicant will purchase an agricultural land conservation easement, of like agricultural land within the County, on the entire 19.33 acres to be maintained and kept in agriculture in perpetuity. The "ultimate" agricultural easement shall be placed on other suitable and agriculturally compatible property, of the same soil types and arability, within Tulare County; at a replacement ratio of 1:1, and to be established as an agricultural land conservation easement in perpetuity.

As such, Less Than Significant Impact related to this Checklist Item will occur. The Project site is categorized as Prime Farmland by the California State Department of Conservation; however, the Project is an allowed use with by Use Permit within the AE-40 zone.

Conclusion:

***Less Than Significant Impact With Mitigation***

As noted above, the Project will have a ***Less Than Significant Impact With Mitigation*** to this Checklist Item.

**b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

Project Impact Analysis:

***No Impact***

This impact evaluates the potential for the proposed Project to conflict with any existing Williamson Act Contract on the site or conflict with the existing zone designation. The Project site does not have a Williamson Act contract so there would be no impact to a Williamson Act Contract. The Project is allowed in the AE-40 zone with approval of a special use permit. Therefore, there would be ***No Impact*** to existing zoning or a Williamson Act Contract.

Cumulative Impact Analysis:

***No Impact***



The geographic area of this cumulative analysis is the entire State of California. This cumulative analysis is based on provisions of the California Land Conservation Act of 1965 (Williamson Act) and on Tulare County allowed uses in agricultural zones.

The proposed Project site is not under a Williamson Act Contract and will not conflict with the overlaying Zone District. Therefore, ***No Impact*** related to this Checklist Item will occur.

Mitigation: ***None Required.***

Conclusion: ***No Impact***

As noted above, ***No Project-specific or Cumulative Impacts*** will occur.

**c) Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?**

Project Impact Analysis: ***No Impact***

There is no forest land zoning on the proposed Project site and there are no forest uses on the site. No loss of forest land would occur and no conflicts would forest land zoning would occur. As such, ***No Project-specific Impacts*** to this Checklist Item will occur.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

The proposed Project is not located within a forestland zone or would require the change of a forestland zone. As such ***No Cumulative Impacts*** to this Checklist Item will occur.

Mitigation: ***None Required.***

Conclusion: ***No Impact***

As noted above, ***No Project-specific or Cumulative Impacts*** to this Checklist Item will occur.

**d) Result in the loss of forest land or conversion of forest land to non-forest use?**

Project Impact Analysis: ***No Impact***



As noted above, the proposed Project is not located within a forest land zone or will require the change of a forest land zone. As such, ***No Project specific Impact*** to this Checklist Item will occur.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

As noted above, the proposed Project is not located within a forest land zone or will require the change of a forest land zone. As such, ***No Cumulative Impact*** to this Checklist Item will occur.

Mitigation Measures: ***None Required.***

Conclusion: ***No Impact***

As noted above, ***No Project-specific or Cumulative Impacts*** to this Checklist Item will occur.

**e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?**

Project Impact Analysis: ***No Impact***

The proposed Project is site specific and does not apply to any properties other than the approximate 20-acre Project site. As noted earlier, the Project is located in an area (zoning) where the proposed use is allowed following approval of a special use permit. As such, there is no potential for the proposed Project to result in the conversion of any surrounding agricultural uses or forest land to non-agricultural uses or non-forest uses; respectively.

As a result, the Project will result in ***No Impact*** to this resource.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

As noted earlier, the proposed Project is allowed following approval of a special use permit, it is not located within a forest land zone, and it will not require the change of a forest land zone. As such, there will be ***No Cumulative Impact*** to this resource.



Mitigation: *None Required.*

Conclusion: *No Impact*

As noted above, *No Project-specific Impact or Less Than Significant Cumulative Impacts* to this Checklist Item will occur.

## ACRONYMS

CALFIRE	California Department of Forestry and Fire Protection
CLCA	California Land Conservation Act (Williamson Act)
DOC	California Department of Conservation
FFPA	Federal Farmland Protection Act
FMMP	Farmland Mapping and Monitoring Program
UDB	Urban Development Boundaries

## DEFINITIONS

“The California Department of Conservation, Division of Land Resource Protection, maintains the Farmland Mapping and Monitoring Program (FMMP), which monitors the conversion of the state’s farmland to and from agricultural use. The map series identifies eight classifications (discussed below) and uses a minimum mapping unit size of 10 acres. The program also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The program maintains an inventory of state agricultural land and updates its “Important Farmland Series Maps” every two years<sup>32</sup>. Although the program monitors a wide variety of farmland types (more fully described below), Important Farmland consists of lands classified as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland.”<sup>33</sup>

Prime Farmland (P) - “*Prime Farmland is farmland with the best combination of physical and chemical features to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.*”<sup>34</sup>

Farmland of Statewide Importance (S) - “*Farmland of Statewide Importance is similar to Prime Farmland but has minor shortcomings, such as greater slopes or a lesser ability to store soil*

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<sup>32</sup> California Department of Conservation, DLRP, Farmland Mapping and Monitoring Program. Accessed at July 2019:

<http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx>.

<sup>33</sup> Tulare County General Plan 2030 Update, Recirculated DEIR (SCH # 2006041162). Page 3.10-4.

<sup>34</sup> Ibid.



*moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.*”<sup>35</sup>

Unique Farmland (U) - *“Unique Farmland has lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.”*<sup>36</sup>

Farmland of Local Importance (L) - *“Farmland of Local Importance is land important to the local agricultural economy as determined by each county’s board of supervisors and a local advisory committee.”*<sup>37</sup>

Grazing Land (G) - *“Grazing Land is land on which the vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen’s Association, the University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.”*<sup>38</sup>

Urban and Built-Up Land (D) - *“Urban and Built-Up Land is land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.”*<sup>39</sup>

Other Land (X) - *“Other Land is land not included in any other mapping category. Common examples include low-density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.”*<sup>40</sup>

Water (W) - *“Water is defined as perennial water bodies with an extent of at least 40 acres. While the number of agricultural lands classified as Important Farmlands (i.e., Prime Farmland, Farmland of Statewide Importance, and Unique Farmland) have been decreasing over the past several years, the total acreage for all categories of farmland (including grazing land) remained relatively stable between the years 1998 and 2006 (see Table 3.10-4). The locations of these farmland types are identified in Figure 3.10-1. The farmlands are concentrated in the Rural Valley/Foothill Planning areas. No important farmlands are located in the Mountain Area.”*<sup>41</sup>

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<sup>35</sup> Op. Cit.

<sup>36</sup> Op. Cit.

<sup>37</sup> Tulare County General Plan 2030 Update Recirculated DEIR, February 2010 (SCH # 2006041162). Page 3.10-4.

<sup>38</sup> Ibid.

<sup>39</sup> Op. Cit. 3.10-4 to 3.10-5.

<sup>40</sup> Op. Cit. 3.10-5.

<sup>41</sup> Tulare County General Plan 2030 Update Recirculated DEIR, February 2010 (SCH # 2006041162). Page 3.10-5.



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# Air Quality

## Chapter 3.3

### SUMMARY OF FINDINGS

Based on the impact analysis below, the proposed Project will result is ***Significant and Unavoidable Impacts*** to Air Quality.. The impact determinations in this chapter are based upon information obtained from the References listed at the end of this chapter, as well as information contained in the “*Air Quality and Greenhouse Gas Assessments for the Dunn Asphalt and Concrete Batch Plant (SCH# 2019011039)*” Technical Memorandum (AQ-GHG Memo) prepared by RMA Staff and in the detailed Health Risk Assessment and Ambient Air Quality Analysis determination prepared by consultant Alta Environmental for this Project, provided in Appendix “A” of this document. A detailed review of potential impacts is provided in the analysis below.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts to Air Quality. As required in CEQA Guidelines Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in CEQA Guidelines Section 15126.2(a), “[a]n EIR shall identify and focus on the significant effects of the proposed project on the environment. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause or risk exacerbating by bringing development and people into the area affected. For example, the EIR should evaluate any potentially significant direct, indirect, or cumulative environmental impacts of locating development in areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas), including both short-term and long-term conditions, as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.”<sup>1</sup>

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<sup>1</sup> CEQA Guidelines, Section 15126.2(a).



The “Environmental Setting” provides a description of the Air Quality in the County. The “Regulatory Setting” provides a description of applicable Federal, State and Local regulatory policies that were developed in part from information contained in the Tulare County General Plan 2030 Update (General Plan), Tulare County General Plan 2030 Update Background Report (Background Report), and/or Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (RDEIR) incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

### Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item questions and by the San Joaquin Valley Unified Air Pollution Control District (Air District or SJVAPCD) significance thresholds identified in their guidance document *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI).<sup>2</sup> The following are potential thresholds for significance.

- Result in an exceedance of San Joaquin Valley Unified Air Pollution Control District criteria pollutant threshold.
- Result in an exceedance of criteria pollutants as established in the 1990 Clean Air Act amendments.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.
- Result in exposure of sensitive receptors to emissions of toxic air contaminants (TAC).
- Result in other emissions (such as those leading to nuisance odors) adversely affecting a substantial number of people.

## **ENVIRONMENTAL SETTING**

### San Joaquin Valley Air Basin (SJVAB)

“Tulare County falls within the southern portion of the San Joaquin Valley Air Basin (SJVAB), which is bordered on the east by the Sierra Nevada range, on the west by the Coast Ranges, and on the south by the Tehachapi Mountains. These features restrict air movement through and out of the SJVAB.

The topography of Tulare County significantly varies in elevation from its eastern to western borders, which results in large climatic variations that ultimately affect air quality. The western

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<sup>2</sup> San Joaquin Valley Unified Air Pollution Control District. Guidance for Assessing and Mitigating Air Quality Impacts. [http://www.valleyair.org/transportation/GAMAQI\\_3-19-15.pdf](http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf). Accessed November 2019.



portion of the County is within the low-lying areas of the SJVAB. This portion of the County is much dryer in comparison to the eastern portion that is located on the slopes of the Sierra Nevada Mountains. The higher elevation contributes to both increased precipitation and a cooler climate.

Wind direction and velocity in the eastern section varies significantly from the western portion of the County. The western side receives northwesterly winds. The eastern side of the County exhibits more variable wind patterns, but the wind direction is typically up-slope during the day and down-slope in the evening. Generally, the wind direction in the eastern portion of the County is westerly; however terrain differences can create moderate directional changes.”<sup>3</sup>

Generally, the temperature of air decreases with height, creating a gradient from warmer air near the ground to cooler air at elevation. This gradient of cooler air over warm air is known as the environmental lapse rate. Inversions occur when warm air sits over cooler air, trapping the cooler air near the ground. These inversions trap pollutants from dispersing vertically and the mountains surrounding the San Joaquin Valley trap the pollutants from dispersing horizontally. Strong temperature inversions occur throughout the San Joaquin Valley Air Basin in the summer, fall, and winter. Daytime temperature inversions occur at elevations of 2,000 to 2,500 feet above the San Joaquin Valley floor during the summer and at 500 to 1,500 feet during the winter. The result is a relatively high concentration of air pollution in the valley during inversion episodes. These inversions cause haziness, which in addition to moisture may include suspended dust, a variety of chemical aerosols emitted from vehicles, particulates from wood stoves, and other pollutants. In the winter, these conditions can lead to carbon monoxide “hotspots” along heavily traveled roads and at busy intersections. During summer’s longer daylight hours, stagnant air, high temperatures, and plentiful sunshine provide the conditions and energy for the photochemical reaction between reactive organic gases (ROG) and oxides of nitrogen (NOx), which results in the formation of ozone.<sup>4</sup>

“The SJVAB is highly susceptible to pollutant accumulation over time due to the transport of pollutants into the SJVAB from upwind sources. Stationary emission sources in the County include the use of cleaning and surface coatings and industrial processes, road dust, local burning, construction/demolition activities, and fuel combustion. Mobile emissions are primarily generated from the operation of vehicles. According to air quality monitoring data, the SJVAB has been in violation for exceeding ozone and PM<sub>10</sub> emission standards for many years.”<sup>5</sup> As of November 2019 the SJVAB is in nonattainment for federal and state ozone and PM<sub>2.5</sub> standards, attainment for federal PM<sub>10</sub> standards, and nonattainment for state PM<sub>10</sub> standards.<sup>6</sup>

### Existing Conditions Overview

“Unlike other air basins in California, the pollution in the San Joaquin Valley Air Basin (SJVAB) is not produced by large urban areas. Instead, emissions are generated by many moderate sized

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<sup>3</sup> Tulare County General Plan 2030 Update RDEIR. Page 3.3-9.

<sup>4</sup> San Joaquin Valley Unified Air Pollution Control District. Guidance for Assessing and Mitigating Air Quality Impacts, Chapter 2; and Air Quality Guidelines for General Plan, Chapter 2, <http://www.valleyair.org/transportation/Entire-AQGGP.pdf>. Accessed November 2019.

<sup>5</sup> Tulare County General Plan 2030 Update RDEIR. Page 3.3-9

<sup>6</sup> San Joaquin Valley Unified Air Pollution Control District. <http://www.valleyair.org/aqinfo/attainment.htm>. Accessed November 2019.



communities and rural uses. Emission levels in the Central Valley have been decreasing overall since 1990. This can be primarily attributed to motor vehicle emission controls that reduce the amount of vehicle emissions and controls on industrial/stationary sources. In spite of these improvements, the San Joaquin Valley is still identified as having some of the worst air quality in the nation.

The main source of CO and NO<sub>x</sub> emissions is motor vehicles. The major contributors to ROG emissions are mobile sources and agriculture. ROG emissions from motor vehicles have been decreasing since 1985 due to stricter standards, even though the vehicle miles have been increasing. Stationary source regulations implemented by the SJVAPCD have also substantially reduced ROG emissions. ROG from natural sources (mainly from trees and plants) is the largest source of this pollutant in Tulare County. Atmospheric modeling accomplished for recent ozone planning efforts has found that controlling NO<sub>x</sub> is more effective at reducing ozone concentrations than controlling ROG. However, controls meeting RACT and BACT are still required for SJVAPCD plans.

The SJVAB has been ranked the 2nd worst in the United States for O<sub>3</sub> levels, even though data shows that overall O<sub>3</sub> has decreased between 1982 and 2001.

Direct PM<sub>10</sub> emissions have decreased between the years 1975 and 1995 and have remained relatively constant since 2000. The main sources of PM<sub>10</sub> in the SJVAB are from vehicles traveling on unpaved roads and agricultural activities. Regional Transportation Planning Agencies must implement BACM for sources of fine particulate matter (PM<sub>10</sub>) to comply with federal attainment planning requirements for PM<sub>10</sub>.<sup>7</sup>

#### SJVAB Attainment Status

The United States Environmental Protection Agency (EPA) and the California Air Resources Board (ARB or CARB) designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.” The federal non-attainment designation is subdivided into five categories (listed in order of increasing severity): marginal, moderate, serious, severe, and extreme. The degree of an area’s non-attainment status reflects the extent of the pollution and the expected time period required in order to achieve attainment.

Designated non-attainment areas are generally subject to more stringent review by ARB and EPA. In the endeavor to improve air quality to achieve the standards, projects are subject to more stringent pollution control strategies and requirements for mitigation measures (such as mobile source reduction measures). If the National Ambient Air Quality Standards (NAAQS) are not achieved within the specified timeframe, federal highway funding penalties (and a federally administered implementation plan incorporating potentially harsh measures to achieve the NAAQS) will result.

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<sup>7</sup> Tulare County 2030 General Plan 2030 Update, Part 1 Goals and Policies Report. Pages 9-4 to 9-5.



Each standard has a different definition, or “form” of what constitutes attainment, based on specific air quality statistics. For example, the federal 8-hour CO standard is not to be exceeded more than once per year; therefore, an area is in attainment of the CO standard if no more than one 8-hour ambient air monitoring values exceeds the threshold per year. In contrast, the federal annual PM<sub>2.5</sub> standard is met if the three-year average of the annual average PM<sub>2.5</sub> concentration is less than or equal to the standard.

**Table 3.3-1** identifies the current federal and state attainment designations for the SJVAB while **Table 3.3-2** summarizes the ambient air quality standards from which the federal and state attainment status are derived. **Table 3.3-3** summarizes the common sources, health effects, and methods for prevention and control of criteria pollutant emissions.

<b>Table 3.3-1 SJVAB Attainment Status</b>		
	<b>Designation Classification</b>	
<b>Pollutant</b>	<b>Federal Standards</b>	<b>State Standards</b>
Ozone – one hour	No Federal Standard <sup>1</sup>	Nonattainment/Severe
Ozone – eight hour	Nonattainment/Extreme <sup>2</sup>	Nonattainment
PM <sub>10</sub>	Attainment <sup>3</sup>	Nonattainment
PM <sub>2.5</sub>	Nonattainment <sup>4</sup>	Nonattainment
Carbon Monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead (Particulate)	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Vinyl Chloride	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
<p>1 Effective June 15, 2005, the U.S. Environmental Protection Agency (EPA) revoked the federal 1-hour ozone standard, including associated designations and classifications. However, EPA had previously classified the SJVAB as extreme nonattainment for this standard. Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.</p> <p>2 Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010)</p> <p>3 On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM<sub>10</sub> National Ambient Air Quality Standard (NAAQS) and approved the PM<sub>10</sub> Maintenance Plan.</p> <p>4 The Valley is designated nonattainment for the 1997 PM<sub>2.5</sub> NAAQS. EPA designated the Valley as nonattainment for the 2006 PM<sub>2.5</sub> NAAQS on November 13, 2009 (effective December 14, 2009).</p> <p>Source: San Joaquin Valley Unified Air Pollution Control District. <i>Ambient Air Quality Standards &amp; Valley Attainment Status.</i> <a href="http://www.valleyair.org/aqinfo/attainment.htm">http://www.valleyair.org/aqinfo/attainment.htm</a>.</p>		



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Table 3.3-2 State and Federal Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards <sup>1</sup>		National Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
Ozone (O <sub>3</sub> ) <sup>8</sup>	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.075 ppm (147 µg/m <sup>3</sup> )		
Respirable Particulate Matter (PM <sub>10</sub> ) <sup>9</sup>	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		-		
Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>9</sup>	24 Hour	---	---	35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	12 µg/m <sup>3</sup>	15.0 µg/m <sup>3</sup>	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m <sup>3</sup> )	---	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )		9 µg/m <sup>3</sup> (10 mg/m <sup>3</sup> )	---	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		---	---	
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>10</sup>	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	100 ppb (188 µg/m <sup>3</sup> )	Same as Primary Standard	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )		0.053 ppm (100 µg/m <sup>3</sup> )		
Sulfur Dioxide (SO <sub>2</sub> ) <sup>11</sup>	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	75 ppb (196 µg/m <sup>3</sup> )	---	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	---		---	0.5 ppm (1300 µg/m <sup>3</sup> )	
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (for certain areas)	---	
	Annual Arithmetic Mean	---		0.030 ppm (for certain areas)	---	
Lead <sup>12, 13</sup>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	---	---	High Volume Sampler and Atomic Absorption
	Calendar Quarter	---		1.5 µg/m <sup>3</sup> (for certain areas)	Same as Primary Standard	
	Rolling 3-Month Average	---		0.15 µg/m <sup>3</sup>		
Visibility Reducing Particles <sup>14</sup>	8 Hour	ARB converted visibility standards to instrumental equivalents in 1989	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m3	Ion Chromatography			
Hydrogen Sulfide (H <sub>2</sub> S)	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence			
Vinyl Chloride <sup>12</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography			



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**Table 3.3-2  
State and Federal Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards <sup>1</sup>		National Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
1	California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.					
2	National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.					
3	Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.					
4	Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.					
5	National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health					
6	National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.					
7	Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.					
8	On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm					
9	On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m3 to 12.0 µg/m3. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 µg/m3, as was the annual secondary standard of 15 µg/m3. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.					
10	To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.					
11	On June 2, 2010, a new 1-hour SO2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.  Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.					
12	The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.					
13	The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.					
14	In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.					
Source: California Air Resources Board. Ambient Air Quality Standards. <a href="https://ww3.arb.ca.gov/research/aaqs/aaqs2.pdf?_ga=2.37139495.687085110.1562705746-1292949104.1524090547">https://ww3.arb.ca.gov/research/aaqs/aaqs2.pdf?_ga=2.37139495.687085110.1562705746-1292949104.1524090547</a> ..Accessed November 2019.						



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**Table 3.3-3  
Air Pollutant Sources, Effects and Control**

<b>Pollutant</b>	<b>Sources</b>	<b>Effects</b>	<b>Prevention and Control</b>
<b>Ozone (O<sub>3</sub>)</b>	Formed when reactive organic gases (ROG) and nitrogen oxides react in the presence of sunlight. ROG sources include any source that burns fuels, (e.g., gasoline, natural gas, wood, oil) solvents, petroleum processing and storage and pesticides.	Breathing Difficulties, Lung Tissue Damage, Damage to Rubber and Some Plastics	Reduce motor vehicle reactive organic gas (ROG) and nitrogen oxide emissions through emissions standards, reformulated fuels, inspections programs, and reduced vehicle use. Limit ROG emissions from commercial operations and consumer products. Limit ROG and NOx emissions from industrial sources such as power plants and refineries. Conserve energy.
<b>Respirable Particulate Matter (PM<sub>10</sub>)</b>	Road Dust, Windblown Dust (Agriculture) and Construction (Fireplaces) Also formed from other pollutants (acid rain, NOx, SOx, organics). Incomplete combustion of any fuel.	Increased Respiratory Disease, Lung Damage, Cancer, Premature Death, Reduced Visibility, Surface Soiling	Control Dust Sources, Industrial Particulate Emissions, Wood Burning Stoves and Fireplaces Reduce secondary pollutants which react to form PM <sub>10</sub> . Conserve energy.
<b>Fine Particulate Matter (PM<sub>2.5</sub>)</b>	Fuel Combustion in Motor Vehicles, Equipment and Industrial Sources, Residential and Agricultural Burning. Also formed from reaction of other pollutants (acid rain, NOx, SOx, organics).	Increases Respiratory Disease, Lung Damage, Cancer, Premature Death, Reduced Visibility, Surface Soiling	Reduces Combustion Emissions from Motor Vehicles, Equipment, Industries and Agriculture and Residential Burning. Precursor controls, like those for ozone, reduce fine particle formation in the atmosphere.
<b>Carbon Monoxide (CO)</b>	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.	Chest Pain in Heart Patients, Headaches, Reduced Mental Alertness	Control motor vehicle and industrial emissions. Use oxygenated gasoline during winter months. Conserve energy.
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>	See Carbon Monoxide	Lung Irritation and Damage. Reacts in the atmosphere to form ozone and acid rain	Controls motor vehicle and industrial combustion emissions. Conserve energy.
<b>Lead</b>	Metal Smelters, Resource Recovery, Leaded Gasoline, Deterioration of Lead Paint	Learning Disabilities, Brain and Kidney Damage	Control metal smelters, no lead in gasoline. Replace leaded paint with non-lead substitutes.
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>	Coal or Oil Burning Power Plants and Industries, Refineries, Diesel Engines	Increases lung disease and breathing problems for asthmatics. Reacts in the atmosphere to form acid rain.	Reduces the use of high sulfur fuels (e.g., use low sulfur reformulated diesel or natural gas). Conserve energy.
<b>Visibility Reducing Particles</b>	See PM <sub>2.5</sub>	Reduces visibility (e.g., obscures mountains and other scenery), reduced airport safety, lower real estate value, discourages tourism.	See PM <sub>2.5</sub>
<b>Sulfates</b>	Produced by the reaction in the air of SO <sub>2</sub> (see SO <sub>2</sub> sources), a component of acid rain.	Breathing Difficulties, Aggravates Asthma, Reduced Visibility	See SO <sub>2</sub>
<b>Hydrogen Sulfide</b>	Geothermal Power Plants, Petroleum Production and Refining, Sewer Gas	Nuisance Odor (Rotten Egg Smell), Headache and Breathing Difficulties (Higher Concentrations)	Control emissions from geothermal power plants, petroleum production and refining, sewers, sewage treatment plants.
California Air Resources Board. ARB Fact Sheet: Air Pollution Sources, Effects and Control. <a href="https://www.arb.ca.gov/research/health/fs/fs2/fs2.htm">https://www.arb.ca.gov/research/health/fs/fs2/fs2.htm</a> . Accessed November 2019.			



## Toxic Air Contaminants

“A Toxic Air Contaminant (TAC) is defined as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health.”<sup>8</sup> TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. The *California Almanac of Emissions and Air Quality – 2009 Edition* presents the relevant concentration and cancer risk data for the ten (10) TACs that pose the most substantial health risk in California based on available data: acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, perchloroethylene, and diesel particulate matter (DPM).<sup>9</sup>

Some studies indicate that DPM poses the greatest health risk among the TACs listed above. A 10-year research program demonstrated that DPM from diesel-fueled engines is a human carcinogen and that chronic (long-term) inhalation exposure to DPM poses a chronic health risk. In addition to increased risk of lung cancer, exposure to diesel exhaust can have other non-cancer health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause a cough, headaches, lightheadedness, and nausea. Diesel exhaust is a major source of fine particulate pollution as well, and studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems.<sup>10,11,12,13</sup>

DPM differs from other TACs in that it is not a single substance, but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled, internal combustion engines, the composition of the emissions varies, depending on: engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present. Unlike other TACs, however, no ambient monitoring data are available for DPM because no routine measurement method currently exists. The ARB has made preliminary concentration estimates based on a DPM exposure method. This method uses the ARB emissions inventory’s PM10 database, ambient PM10 monitoring data, and the results from several studies to estimate concentrations of DPM.

Health risks attributable to the top ten (10) TACs listed above are available from the ARB as part of its *California Almanac of Emissions and Air Quality—2009 Edition*. As shown therein for data

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<sup>8</sup> Health and Safety Code. Section 39655(a)

<sup>9</sup> California Air Resources Board. The California Almanac of Emissions and Air Quality – 2009 Edition. Chapter 5. <https://ww3.arb.ca.gov/aqd/almanac/almanac09/almanac09.htm>. Accessed November 2019.

<sup>10</sup> California Air Resources Board. Fact Sheet – The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines. October 1998. <https://ww3.arb.ca.gov/toxics/dieseltac/factsht1.pdf>. Accessed November 2019.

<sup>11</sup> California Air Resources Board. Summary: Diesel Particulate Matter Health Impacts. <https://ww2.arb.ca.gov/resources/summary-diesel-particulate-matter-health-impacts>. Accessed November 2019.

<sup>12</sup> California Air Resources Board. Overview: Diesel Exhaust & Health. <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>. Accessed November 2019.

<sup>13</sup> California Air Resources Board. The Report on Diesel Exhaust. <https://ww3.arb.ca.gov/toxics/dieseltac/de-fnds.htm>. Accessed November 2019.



collected at the First Street air monitoring station in Fresno, cancer risks attributable to all of the listed TACs above with the exception of DPM have declined about 70 percent from the mid-1990s to 2007.<sup>14</sup> Risks associated with DPM emissions are provided only for the year 2000 and have not been updated in the Almanac. Although more recent editions of the Almanac do not provide estimated risk, they do provide emission inventories for DPM for later years. The 2013 edition of the Almanac provides emission inventory trends for DPM from 2000 through 2035.<sup>15</sup> The Almanac reports that DPM emissions were reduced in the SJVAB from 16 tons per day in 2000 to 11 tons per day in 2010, a 31 percent decrease. DPM emissions in the San Joaquin Valley are projected to decrease to six tons per day by 2015, a 62 percent reduction from year 2000 levels. ARB predicts a reduction to three tons per day by 2035, which would be an 81 percent reduction from year 2000 levels.<sup>16</sup> Continued implementation of the ARB's Diesel Risk Reduction Plan is expected to provide continued reductions in DPM through 2020 and beyond through regulations on this source.<sup>17</sup>

### Asbestos<sup>18,19,20,21,22,23</sup>

Asbestos is the name given to a number of naturally occurring fibrous silicate minerals that have been mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The six types of asbestos are chrysotile, crocidolite, amosite, anthophyllite asbestos, tremolite asbestos, and actinolite asbestos. Chrysotile, also known as white asbestos, is the most common type of asbestos found in buildings and makes up approximately 95 percent of commercial and home use in the United States. Exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest, and abdominal cavity), and asbestosis (a non-cancerous lung disease that causes scarring of the lungs). Exposure to asbestos can occur during demolition or remodeling of buildings that were constructed using asbestos-containing materials (such as insulation prior to 1950 and textured paints and patching compounds prior to 1977). Exposure to naturally occurring asbestos can occur during soil-disturbing activities in areas with deposits present.

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<sup>14</sup> California Air Resources Board. The California Almanac of Emissions and Air Quality – 2009 Edition. Chapter 5. San Joaquin Valley Air Basin Annual Average Concentration and Health Risks. Pages 5-62 to 5-69. <https://ww3.arb.ca.gov/aqd/almanac/almanac09/almanac09.htm>. Accessed November 2019.

<sup>15</sup> California Air Resources Board. The California Almanac of Emissions and Air Quality – 2013 Edition. <https://ww3.arb.ca.gov/aqd/almanac/almanac13/almanac13.htm>. Accessed November 2019.

<sup>16</sup> Ibid. Chapter 4. San Joaquin Valley Air Basin. 4-28.

<sup>17</sup> California Air Resources Board. Final Diesel Risk Reduction Plan with Appendices. <https://ww3.arb.ca.gov/diesel/documents/rrpapp.htm>. Accessed November 2019.

<sup>18</sup> 29 CFR 1910.1001. <https://www.govinfo.gov/content/pkg/CFR-2007-title29-vol6/pdf/CFR-2007-title29-vol6-sec1910-1001.pdf>. Accessed November 2019.

<sup>19</sup> California Air Resources Board. Naturally Occurring Asbestos. <https://ww3.arb.ca.gov/toxics/asbestos/asbestos.htm>. Accessed November 2019.

<sup>20</sup> California Air Resources Board. Naturally-Occurring Asbestos General Information. <https://ww3.arb.ca.gov/toxics/asbestos/general.pdf>. Accessed November 2019.

<sup>21</sup> United States Environmental Protection Agency. Learn About Asbestos – Health Effects From Exposure to Asbestos. <https://www.epa.gov/asbestos/learn-about-asbestos>. Accessed November 2019.

<sup>22</sup> United States Geological Survey. Fact Sheet FS-012-01. Some Facts About Asbestos. March 2001. <http://www.capcoa.org/Docs/noa/%5B12%5D%20USGS%20Facts%20on%20Asbestos.pdf>. Accessed November 2019.

<sup>23</sup> Environment, Health and Safety Online. Where Is Asbestos Commonly Found In The Home, When and How Should It be Removed? <http://www.ehso.com/cssasbestos/asbestosfoundwhere.htm>. Accessed November 2019.



### Air Quality Conditions in Tulare County

Tulare County lies within the southern portion of the SJVAB. Topography and climate are unusually favorable for the development of air pollution, especially in the southern portion of the air basin where pollutants build up against the Tehachapi Mountains. Due to the SJVAB's light wind patterns, long periods of warm and sunny days, and surrounding mountains, air quality problems can occur at any time of the year.

Existing local air quality conditions can be characterized by reviewing air pollution concentration data near the Project area for comparison with the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). Air samples are collected continuously for some pollutants and periodically for other pollutants depending on the type of monitoring equipment installed. Monitoring sites are usually chosen to be representative of the emissions in a community. There are currently 39 air monitoring stations in the SJVAB, which include 24 stations operated by the Air District, one (1) station operated jointly by the Air District and the ARB, nine (9) stations operated by the ARB, two (2) stations operated by the National Park Service, and three (3) stations operated on Native American tribal lands.<sup>24</sup> Of these, there are currently five (5) stations in Tulare County: Visalia–Airport; Visalia–Church; Porterville; Sequoia National Park–Lower Kaweah; and Sequoia National Park–Ash Mountain. However, CO and SO<sub>2</sub> are not collected in these five stations, so the next closest monitor with those emissions must be identified.

Local air quality can be evaluated by reviewing relevant air pollution concentrations near the Project area. For the purposes of background data and this air quality assessment, this analysis relied on data collected in the last three years for the monitoring station that is located in the closest proximity to the Project site. **Table 3.3-4** provides the background concentrations for 2016 through 2018, which is the most recent three-year period available, for ozone, particulate matter of 10 microns (PM<sub>10</sub>), particulate matter of less than 2.5 microns (PM<sub>2.5</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and lead (Pb). The table displays monitoring data from the, Visalia – N Church Street monitoring station located approximately 8.5 miles northeast of the Project site. The data in the table reflects the concentration of the pollutants in the air, measured using air monitoring equipment. This differs from emissions, which are calculations of a pollutant being emitted over a certain period. No recent monitoring data for Tulare County or the SJVAB is available for CO or SO<sub>2</sub> as monitoring is generally not conducted for pollutants that are no longer likely to exceed ambient air quality standards. No monitoring data is available for hydrogen sulfide, vinyl chloride or other toxic air contaminants in Tulare County or any nearby counties.

Based on the air monitoring data the Project area has generally exceeded air quality standards for ozone (state and national), PM<sub>10</sub> (state), and PM<sub>2.5</sub> (national). The amount over the standards and

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<sup>24</sup> San Joaquin Valley Unified Air Pollution Control District. 2019 Air Monitoring Network Plan. Pages 1-2.  
<https://valleyair.org/aqinfo/Docs/2019-Air-Monitoring-Network-Plan.pdf>. Accessed November 2019.



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the number of days each year that the standards were exceeded provide an indicator of the severity of the air quality problems in the local area.

<b>Table 3.3-4 Air Quality Monitoring Summary<sup>25</sup></b>					
<b>Air Pollutant</b>	<b>Averaging Time</b>	<b>Item</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Ozone (O <sub>3</sub> ) <sup>1</sup>	1-hour	Max 1-hour (ppm)	0.098	0.109	0.112
		Days > State Standard (0.09 ppm)	1	9	8
	8-hour	State Max 8-hour (ppm)	0.083	0.092	0.095
		Days > State Standard (0.07 ppm)	19	65	58
		National Max 8-hour (ppm)	0.083	0.091	0.094
		Days > National Standard (0.07 ppm)	18	61	53
Inhalable coarse particles (PM <sub>10</sub> ) <sup>1</sup>	Annual	Annual Average (µg/m <sup>3</sup> )	43.3	47.4	52.5
	24-hour	State 24-hour (µg/m <sup>3</sup> )	132.5	145.7	159.6
		Days > State Standard (50 µg/m <sup>3</sup> )	ID	135.9	164.4
		National 24-hour (µg/m <sup>3</sup> )	137.1	144.8	153.4
		Days > National Standard (150 µg/m <sup>3</sup> )	0	0	0
Fine particulate matter (PM <sub>2.5</sub> ) <sup>1</sup>	Annual	Annual Average (µg/m <sup>3</sup> )	14.6	16.2	17.3
	24-hour	24-hour (µg/m <sup>3</sup> )	48.0	86.1	86.8
		Days > National Standard (35 µg/m <sup>3</sup> )	21.3	26.7	42.3
Carbon monoxide (CO) <sup>2</sup>	8-hour	Max 8-hour (ppm)	ND	ND	ND
		Days > State and National Standards (9 ppm)	ND	ND	ND
Nitrogen dioxide (NO <sub>2</sub> ) <sup>1</sup>	Annual 1-hour	Annual Average (ppm)	ID	0.010	0.010
		Max 1-hour (ppm)	0.0575	0.0581	0.0692
		Days > State Standard (0.18 ppm)	0	0	0
		Days > National Standard (100 ppb)	0	0	0
Sulfur dioxide (SO <sub>2</sub> ) <sup>2</sup>	Annual	Annual Average (ppm)	ND	ND	ND
	24-hour	Max 24-hour (ppm)	ND	ND	ND
Abbreviations: ppm = parts per million; > = exceeded; µg/m <sup>3</sup> = micrograms per cubic meter; ID = insufficient data; ND = no data available; max = maximum					
State Standard = CAAQS; National Standard = NAAQS					
<sup>1</sup> data from Visalia-Church station					
<sup>2</sup> no recent data is available for Tulare County or the San Joaquin Valley as they are no longer likely to exceed AAQS					

<sup>25</sup> California Air Resources Board. Top 4 Summary. <http://www.arb.ca.gov/adam/topfour/topfour1.php>. Accessed November 2019.



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**Table 3.3-5  
Air Quality Index and Health Effects of Ozone<sup>26</sup>**

<b>Air Quality Index/ Ozone Concentration</b>	<b>Health Effects Description</b>
<b>AQI 0-50 – Good</b> Concentration 0-59 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk.
	Health Effects Statements: None
	Cautionary Statements: None
<b>AQI 51-100 – Moderate</b> Concentration 60-75 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk.
	Health Effects Statements: Unusually sensitive individuals may experience respiratory symptoms.
	Cautionary Statements: Unusually sensitive people should consider limiting prolonged outdoor exertion.
<b>AQI 101-150 – Unhealthy for Sensitive Groups</b> Concentration 76-95 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk.
	Health Effects Statements: Increasing likelihood of respiratory symptoms and breathing discomfort in active children and adults and people with respiratory disease, such as asthma.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.
<b>AQI 151-200 – Unhealthy</b> Concentration 96-115 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk.
	Health Effects Statements: Greater likelihood of respiratory symptoms and breathing difficulty in active children and adults and people with respiratory disease, such as asthma; possible respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.
<b>AQI 201-300 – Very Unhealthy</b> Concentration 116-374 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk.
	Health Effects Statements: Increasingly severe symptoms and impaired breathing likely in active children and adults and people with respiratory disease, such as asthma; increasing likelihood of respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.
<b>AQI 301-500 – Hazardous*</b> Concentration ≥405 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk.
	Health Effects Statements: Severe respiratory effects and impaired breathing likely in active children and adults and people with respiratory disease, such as asthma; increasingly severe respiratory effects likely in general population.
	Cautionary Statements: Everyone should avoid all outdoor exertion.
* AQI 300-500 are calculated using 1-hr ozone data (under 1-hr ozone concentrations 375-404 ppb are identified as Very Unhealthy)	

<sup>26</sup> U.S. Environmental Protection Agency. AirNow. Air Quality Index Basics. <https://www.airnow.gov/index.cfm?action=aqibasics.aqi>. AirNow. AQI Calculator. <https://airnow.gov/index.cfm?action=airnow.calculator>. Accessed November 2019.



**Table 3.3-6  
Air Quality Index and Health Effects of PM<sub>2.5</sub><sup>27</sup>**

<b>Air Quality Index/ PM<sub>2.5</sub> Concentration</b>	<b>Health Effects Description</b>
<b>AQI 0-50 – Good</b>  Concentration 0-12.0 µg/m <sup>3</sup>	Sensitive Groups: People with respiratory or heart disease, the elderly and children are the groups most at risk.
	Health Effects Statements: None
	Cautionary Statements: None
<b>AQI 51-100 – Moderate</b>  Concentration 12.1-35.4 µg/m <sup>3</sup>	Sensitive Groups: People with respiratory or heart disease, the elderly and children are the groups most at risk.
	Health Effects Statements: Unusually sensitive people should consider reducing prolonged or heavy exertion.
	Cautionary Statements: Unusually sensitive people should consider reducing prolonged or heavy exertion.
<b>AQI 101-150 – Unhealthy for Sensitive Groups</b>  Concentration 35.5-55.4 µg/m <sup>3</sup>	Sensitive Groups: People with respiratory or heart disease, the elderly and children are the groups most at risk.
	Health Effects Statements: Increasing likelihood of respiratory symptoms in sensitive individuals, aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly.
	Cautionary Statements: People with respiratory or heart disease, the elderly and children should limit prolonged exertion.
<b>AQI 151-200 – Unhealthy</b>  Concentration 55.5-150.4 µg/m <sup>3</sup>	Sensitive Groups: People with respiratory or heart disease, the elderly and children are the groups most at risk.
	Health Effects Statements: Increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; increased respiratory effects in general population.
	Cautionary Statements: People with respiratory or heart disease, the elderly and children should avoid prolonged exertion; everyone else should limit prolonged exertion.
<b>AQI 201-300 – Very Unhealthy</b>  Concentration 150.5-250.4 µg/m <sup>3</sup>	Sensitive Groups: People with respiratory or heart disease, the elderly and children are the groups most at risk.
	Health Effects Statements: Significant aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; significant increase in respiratory effects in general population.
	Cautionary Statements: People with respiratory or heart disease, the elderly and children should avoid any outdoor activity; everyone else should avoid prolonged exertion.
<b>AQI 301-500 – Hazardous*</b>  Concentration ≥250.5 µg/m <sup>3</sup>	Sensitive Groups: People with respiratory or heart disease, the elderly and children are the groups most at risk.
	Health Effects Statements: Serious aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly; serious risk of respiratory effects in general population.
	Cautionary Statements: Everyone should avoid any outdoor exertion; people with respiratory or heart disease, the elderly and children should remain indoors.

<sup>27</sup> Ibid.



The health impacts of the various air pollutants of concern can be presented in a number of ways. The clearest in comparison is to the state and federal ozone standards. If concentrations are below the standard, it is safe to say that no health impact would occur to anyone. When concentrations exceed the standard, impacts will vary based on the amount the standard is exceeded. The EPA developed the Air Quality Index (AQI) as an easy to understand measure of health impact compared to concentrations in the air. As the SJVAB is in nonattainment at the federal level for ozone and PM<sub>2.5</sub>, the discussion below includes only those emissions with respect to the AQI. **Table 3.3-5** and **Table 3.3-6** provide a description of the health impacts of ozone and PM<sub>2.5</sub>, respectively, at different concentrations.

Based on the AQI scale for the 8-hour ozone standard, the nearest monitoring station in Visalia experienced at least three days in the last three years that would be categorized as unhealthy (AQI 151-200), and as many as 80 days that were categorized as unhealthy for sensitive groups (AQI 101-150) or moderate (AQI 50-100). The highest reading for the 8-hour standard was 104 ppb in 2013 and the highest reading for the 1-hour ozone standard was 112 ppb in 2013. These values are higher than the 95-ppb cut off point for unhealthy for sensitive groups (AQI 101-150), but lower than the 115-ppb cut off point for unhealthy (AQI 151-200). Active children and adults, and people with respiratory disease should avoid prolonged outdoor exertion when the AQI is at this level.

An AQI of 51-100 for PM<sub>2.5</sub> is considered moderate and would be triggered by a 24-hour average concentration of 35.4 µg/m<sup>3</sup>, which is considered an exceedance of the federal PM<sub>2.5</sub> standard. The monitoring station in Visalia exceeded the standard up to 14 days in one year over the last three years. People with respiratory or heart disease, the elderly and children are the groups most at risk. An unhealthy AQI (AQI 151-200) was also exceeded on at least three days in the last three years. The highest concentration recorded was 124.2 µg/m<sup>3</sup> in 2013. At this concentration, increased aggravation of heart or lung disease and premature mortality in persons with cardiopulmonary disease and the elderly and increased respiratory effects in general population would occur. People with respiratory or heart disease, the elderly, and children should avoid prolonged exertion; everyone else should limit prolonged exertion when the AQI exceeds this level.

## REGULATORY SETTING

### *Federal Agencies & Regulations*

#### Federal Clean Air Act

“The Federal Clean Air Act (CAA), adopted in 1970 and amended twice thereafter (including the 1990 amendments), establishes the framework for modern air pollution control. The act directs the Environmental Protection Agency (EPA) to establish ambient air standards, the National Ambient Air Quality Standards (NAAQS)... for six pollutants: ozone, carbon monoxide, lead, nitrogen dioxide, particulate matter (less than 10 microns in diameter [PM<sub>10</sub>] and less than 2.5 microns in diameter [PM<sub>2.5</sub>]), and sulfur dioxide. The standards are divided into primary and secondary standards; the former are set to protect human health with an adequate margin of safety and the latter to protect environmental values, such as plant and animal life.



Areas that do not meet the ambient air quality standards are called “non-attainment areas”. The Federal CAA requires each state to submit a State Implementation Plan (SIP) for non-attainment areas. The SIP, which is reviewed and approved by the EPA, must demonstrate how the federal standards will be achieved. Failing to submit a plan or secure approval could lead to the denial of federal funding and permits for such improvements as highway construction and sewage treatment plants. For cases in which the SIP is submitted by the State but fails to demonstrate achievement of the standards, the EPA is directed to prepare a federal implementation plan or EPA can “bump up” the air basin in question to a classification with a later attainment date that allows time for additional reductions needed to demonstrate attainment, as is the case for the San Joaquin Valley.

SIPs are not single documents. They are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, state regulations and federal controls. The California SIP relies on the same core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations and limits on emissions from consumer products. California State law makes the California Air Resources Board (CARB) the lead agency for all purposes related to the SIP. Local Air Districts and other agencies, such as the Bureau of Automotive Repair and the Department of Pesticide Regulation, prepare SIP elements and submit them to CARB for review and approval. The CARB forwards SIP revisions to the EPA for approval and publication in the Federal Register.”<sup>28</sup>

### ***State Agencies & Regulations***

#### **California Clean Air Act**

“The California CAA of 1988 establishes an air quality management process that generally parallels the federal process. The California CAA, however, focuses on attainment of the State ambient air quality standards (see Table 3.3-1 [of the General Plan RDEIR]), which, for certain pollutants and averaging periods, are more stringent than the comparable federal standards. Responsibility for meeting California’s standards is addressed by the CARB and local air pollution control districts (such as the eight county AIR DISTRICT, which administers air quality regulations for Tulare County). Compliance strategies are presented in district-level air quality attainment plans.

The California CAA requires that Air Districts prepare an air quality attainment plan if the district violates State air quality standards for criteria pollutants including carbon monoxide, sulfur dioxide, nitrogen dioxide, PM<sub>2.5</sub>, or ozone. Locally prepared attainment plans are not required for areas that violate the State PM<sub>10</sub> standards. The California CAA requires that the State air quality standards be met as expeditiously as practicable but does not set precise attainment deadlines. Instead, the act established increasingly stringent requirements for areas that will require more time to achieve the standards.”<sup>29</sup>

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<sup>28</sup> Tulare County General Plan 2030 Update REIR. Pages 3.3-1 to 3.3-2.

<sup>29</sup> Ibid. 3.3-2 to 3.3-3.



“The air quality attainment plan requirements established by the California CAA are based on the severity of air pollution caused by locally generated emissions. Upwind air pollution control districts are required to establish and implement emission control programs commensurate with the extent of pollutant transport to downwind districts.”<sup>30</sup>

#### California Air Resources Board

“The CARB is responsible for establishing and reviewing the State ambient air quality standards, compiling the California State Implementation Plan (SIP) and securing approval of that plan from the U.S. EPA. As noted previously, federal clean air laws require areas with unhealthy levels of ozone, inhalable particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide to develop SIPs. SIPs are comprehensive plans that describe how an area will attain NAAQS. The 1990 amendments to the Federal CAA set deadlines for attainment based on the severity of an area’s air pollution problem. State law makes CARB the lead agency for all purposes related to the SIP. The California SIP is periodically modified by the CARB to reflect the latest emission inventories, planning documents, and rules and regulations of various air basins. The CARB produces a major part of the SIP for pollution sources that are statewide in scope; however, it relies on the local Air Districts to provide emissions inventory data and additional strategies for sources under their jurisdiction. The SIP consists of the emission standards for vehicular sources and consumer products set by the CARB, and attainment plans adopted by the local air agencies as approved by CARB. The EPA reviews the air quality SIPs to verify conformity with CAA mandates and to ensure that they will achieve air quality goals when implemented. If EPA determines that a SIP is inadequate, it may prepare a Federal Implementation Plan for the nonattainment area, and may impose additional control measures.

In addition to preparation of the SIP, the CARB also regulates mobile emission sources in California, such as construction equipment, trucks, automobiles, and oversees the activities of air quality management districts and air pollution control districts, which are organized at the county or regional level. The local or regional Air Districts are primarily responsible for regulating stationary emission sources at industrial and commercial facilities within their jurisdiction and for preparing the air quality plans that are required under the Federal CAA and California CAA.”<sup>31</sup>

#### California Air Resources Board Airborne Toxic Control Measures

“Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or “soot.” In 1998, following a 10-year scientific assessment process, ARB identified diesel PM as a toxic air contaminant based on its potential to cause cancer and other health problems, including respiratory illnesses, and increased risk of heart disease. Subsequent to this action, research has shown that diesel PM also contributes to premature deaths. Health risks from diesel PM are highest in areas of concentrated emissions, such as near ports, railyards, freeways, or warehouse distribution centers. Exposure to diesel PM is a health hazard, particularly

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<sup>30</sup> Op. Cit. 3.3-5.

<sup>31</sup> Op. Cit. 3.3-6 to 3.3-7.



to children whose lungs are still developing and the elderly who may have other serious health problems.

Both private businesses and public agencies operating stationary prime and emergency standby diesel engines in California are subject to the ATCM. Emergency standby engines are those that are used only when normal power or natural gas service fails or when needed for fire suppression or flood control. Prime engines are those that are not used for emergency standby purposes. Examples of businesses that are affected include private schools and universities, private water treatment facilities, hospitals, power generation, communications, broadcasting, building owners, agricultural production, banks, hotels, refiners, resorts, recycling centers, quarries, wineries, dairies, food processing, and manufacturing entities. A variety of public agencies are also affected including military installations, prisons and jails, public schools and universities, and public water and wastewater treatment facilities.”<sup>32</sup>

“The ATCM for stationary diesel engines was originally adopted by the Air Resources Board (ARB or Board) at the February 26, 2004, Board Hearing. On November 8, 2004, the Final Regulation Order for the ATCM was approved by the Office of Administrative Law (OAL) and filed with the Secretary of State. The rulemaking became effective December 8, 2004. Among other provisions, the ATCM established emission standards and fuel use requirements for new and in-use stationary engines used in prime and emergency back-up applications (non-agricultural) and for new stationary engines used in agricultural applications.

A modification of the 2004 action was necessary to address the required PM emission standard for new agricultural engines. Therefore, an Emergency Regulatory Amendment was heard at the March 17, 2005 Board Hearing. On April 4, 2005, the Office of Administrative Law approved the amendments to the ATCM which removed the requirement that new stationary agriculture pump engines meet the 0.15g/bhp-hr PM standard. Instead, such engines must meet the appropriate Tier 2 emissions standard. The Board approved a temporary emergency action (Resolution 05-29) to replace the 0.15 g/bhp-hr PM standard for these engines with the appropriate ARB and federal new off-road/nonroad engine certification standards. Following this emergency rulemaking proceeding, ARB conducted another rulemaking in accordance with all procedural requirements of the California Administrative Procedure Act to make a modified version of the emergency amendments permanent at the May 26, 2005 Board Hearing. The final rulemaking package was approved by OAL and filed with the Secretary of the State on September 9, 2005. The regulation became effective that same day.

In November 2006, the Board approved amendments to the ATCM to include requirements for stationary in-use agricultural engines. Additional amendments addressed implementation and compliance issues primarily involving non-agricultural emergency standby and prime engines. These issues included streamlining certain fuel reporting requirements, updating electricity tariff schedules, modifying the definitions of California (CARB) diesel fuel and alternative diesel fuel, an alternative compliance demonstration option to the 0.01 g/bhp-hr diesel PM standard, and a

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<sup>32</sup> Frequently Asked Questions. Airborne Toxic Control Measure For Stationary Compression Ignition Engines, Requirements for Stationary Engines Use in Non-Agricultural Applications. California Air Resources Board, Stationary Source Division, Emissions Assessment Branch, May 2011. Page 2. Which can be accessed at: <http://www.arb.ca.gov/diesel/documents/atcmfaq.pdf>.



“sell-through” provision to allow stationary diesel-fueled engine wholesalers and retailers to sell (and owners or operators to use) stock engines that do not meet new, more stringent emissions standards when they become effective. The amendments also authorized the Executive Officer or local air district to allow the sale, purchase, or installation of a new stock engine from the previous model year to meet new stationary diesel-fueled engine emission standards, if verifiable information is provided documenting that current model year engines meeting the new emission standards are not available in sufficient numbers or in a sufficient range of makes, models, and horsepower ratings. The OAL approved the amendments on September 18, 2007, which became effective October 18, 2007.

In October 2010, the Board approved amendments to the ATCM to more closely align with the emission standards for new stationary diesel-fueled emergency standby engines, including direct-drive fire pump engines, and new prime engines with the federal Standards of Performance for Stationary Compression- Ignition Internal Combustion Engines (NSPS) promulgated July 11, 2006. Amendments to help clarify provisions in the ATCM and address new information, and to remove provisions no longer needed were also approved.”<sup>33</sup>

### ***Regional Agencies & Regulations***

#### **San Joaquin Valley Air Pollution Control District**

The San Joaquin Valley Air Pollution Control District (Air District) is made up of eight counties in California’s Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, and Tulare Counties, and the San Joaquin Valley portion of Kern County.

“The Air District is a public health agency whose mission is to improve the health and quality of life for all San Joaquin Valley residents through efficient, effective and entrepreneurial air quality-management strategies.”<sup>34</sup> The Air District’s 10 core values include: protection of public health; active and effective air pollution control efforts with minimal disruption to the San Joaquin Valley’s economic prosperity; outstanding customer service; ingenuity and innovation; accountability to the public; open and transparent public process; recognition of the uniqueness of the San Joaquin Valley; continuous improvement; effective and efficient use of public funds; and respect for the opinions and interests of all San Joaquin Valley residents. To achieve these core values the Air District has adopted air quality plans pursuant to the California CAA and a comprehensive list of rules to limit air quality impacts. The air plans currently in effect in the SJVAB and specific rules that apply to the Project are listed and described further below.

#### **Ozone Plans**<sup>35</sup>

“The SJVAB has severe ozone problems. The EPA has required the Air District to demonstrate in a plan, substantiated with modeling, that the ozone NAAQS could be met by the November 15, 2005 deadline. However, the district could not provide this demonstration for several reasons, including

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<sup>33</sup> Ibid. 1 and 2.

<sup>34</sup> Air District website accessed at: [http://www.valleyair.org/General\\_info/aboutdist.htm#Mission](http://www.valleyair.org/General_info/aboutdist.htm#Mission).

<sup>35</sup> The various ozone plans can be found on the Air District’s website at: [http://www.valleyair.org/Air\\_Quality\\_Plans/Ozone\\_Plans.htm](http://www.valleyair.org/Air_Quality_Plans/Ozone_Plans.htm).



that its achievement would require regulation of certain source categories not currently under the jurisdiction of the district. According to the district, in order to meet the standard the SJVAB must reduce the total emissions inventory by an additional 30 percent (300 tons per day). Because attainment by the deadline could not be demonstrated by the mandated deadlines, the federal sanction clock was started. The clock was to be stopped if the Air District SIP could demonstrate compliance with specified federal requirements by November 15, 2005. However, the district recognized that it could not achieve demonstration in time. Therefore, the district, through petition by the State on behalf of SJVAPCD, sought a change in the federal nonattainment classification from “severe” to “extreme” nonattainment with the ozone standard. An extreme nonattainment designation would effectively move the compliance deadline to year 2010 before federal sanctions would begin.

On February 23, 2004, EPA publicly announced its intention to grant the request by the State of California to voluntarily reclassify the SJVAB from a “severe” to an “extreme” 1-hour ozone nonattainment area. The EPA stated that, except for a demonstration of attainment of the ozone standard by 2005, the Air District has submitted all of the required severe area plan requirements and they were deemed complete. The CARB submitted the 2004 Extreme Ozone Attainment Demonstration Plan to EPA on November 15, 2004. On August 21, 2008, the District adopted Clarifications for the 2004 Extreme Ozone Attainment Demonstration Plan for 1-hour Ozone, and on October 16, 2008, EPA proposed to approve the District's 2004 Extreme Ozone Attainment Demonstration Plan for 1-hour Ozone.”<sup>36</sup>

The planning requirements for the 1-hour plan remain in effect until replaced by a federal 8-hour ozone attainment plan. The Air District adopted the *2004 Extreme Ozone Attainment Demonstration Plan* in October 2004. However, since EPA revoked the federal 1-hour standard effective June 15, 2005. EPA did not act on this plan until 2010, when a court decision required EPA action. The EPA approved the plan, including revisions to the plan, on March 8, 2010. EPA's action approved the plan, but subsequent litigation led to a court finding that EPA had not properly considered new information available since the District adopted the plan in 2004. EPA thus withdrew its plan approval in November 2012, and the Air District and ARB withdrew this plan from consideration. The Air District developed a new plan for the revoked standard and adopted the *2013 Plan for the Revoked 1-Hour Ozone Standard* in September 2013. While this plan does not establish new emissions reductions strategies, it builds upon the District's 8-hour ozone and particulate matter strategies. Under these combined efforts, the SJVAB 1-hour ozone concentrations have been and will continue to improve. The modeling contained in the plan confirms that the SJVAB will attain the revoked 1-hour ozone standard by 2017.

EPA originally classified the Air Basin as serious nonattainment for the 1997 federal 8-hour ozone standard with an attainment date of 2013. On April 30, 2007, the District's Governing Board adopted the *2007 Ozone Plan*, which contained analysis showing a 2013 attainment target to be infeasible. This plan details the Air District's plan for achieving attainment on schedule with an “extreme nonattainment” deadline of 2024. At its adoption of the plan, the District also requested a reclassification to extreme nonattainment. ARB approved the plan in June 2007, and EPA approved the request for reclassification to extreme nonattainment on April 15, 2010. The plan

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<sup>36</sup> Tulare County General Plan 2030 Update RDEIR. Pages 3.3-12 to 3.3-13.



contains measures to reduce ozone and particulate matter precursor emissions to bring the SJVAB into attainment with the federal 8-hour ozone standard. The plan calls for a 75-percent reduction of NO<sub>x</sub> and a 25-percent reduction of ROG. The plan, with innovative measures and a “dual path” strategy, assures expeditious attainment of the federal 8-hour ozone standard for all Basin residents. The Air District adopted the plan on April 30, 2007 and the ARB approved the plan on June 14, 2007. The *2007 Ozone Plan* requires yet to be determined “Advanced Technology” to achieve additional reductions after 2021 to attain the standard at all monitoring stations in the Basin by 2024 as allowed for areas designated extreme nonattainment by the federal CAA.

The EPA revised the federal 8-hour ozone standard in 2008. To address this standard on June 16, 2016, the Air District adopted the *2016 Ozone Plan for 2008 8-hour Ozone Standard*, which the SJVAB must attain by 2031. This plan demonstrates that the Air District’s attainment strategy satisfies all federal CAA requirements and ensures expeditious attainment of the 75 parts per billion 8-hour ozone standard. The plan includes a “black box” provision to satisfy the contingency requirements under the federal CAA. The “black box” represents reductions that would be needed to attain the standard for which specific measures or technologies are not currently available. The strategy in this plan will reduce NO<sub>x</sub> emissions by over 60% between 2012 and 2031.

In October 2015, the EPA again revised and lowered the federal 8-hour ozone standard to 70 parts per billion effective December 28, 2018. Addressing the 2015 8-hour ozone standard will pose a tremendous challenge for the San Joaquin Valley, given the naturally high background ozone levels and ozone transport into the San Joaquin Valley. The Air District will be required to prepare a new plan to address the 2015 standard.

“The County continues to evaluate and consider a variety of Federal, State, and Air District programs in order to respond to the non-attainment designation for Ozone that the SJVAB has received, and will continue to adopt resolutions to implement these programs. The Tulare County Board of Supervisor resolutions are described below. These resolutions were adopted in 2002 and 2004, respectively.

**Resolution 2002-0157.** Resolution 2002-0157, as adopted on March 5, 2002, requires the County to commit to implementing the Reasonably Available Control Measures included in the Resolution. The following Reasonably Available Control Measures were included in the resolution:

1. Increasing transit service to the unincorporated communities of Woodville, Poplar and Cotton Center;
2. Purchase of three new buses and installation of additional bicycle racks on buses;
3. Public outreach to encourage the use of alternative modes of transportation;
4. Providing preferential parking for carpools and vanpools;
5. Removing on-street parking and providing bus pullouts in curbs to improve traffic flow;
6. Supporting the purchase of hybrid vehicles for the County fleet;
7. Mandating that the General Plan 2030 Update implement land use policies supporting public transit and vehicle trip reduction; and



8. Programming \$13,264,000 of highway widening projects.

**Resolution 2004-0067.** As part of a follow up effort to Resolution 2002-0157 and to address the federal reclassification to Extreme non-attainment for ozone, the County Board of Supervisors adopted Resolution 2004-067. The resolution contains additional Reasonably Available Control Measures as summarized below:

- Encouraging land use patterns which support public transit and alternative modes of transportation;
- Exploring concepts of Livable Communities as they address housing incentives and transportation;
- Consideration of incentives to encourage developments in unincorporated communities that are sensitive to air quality concerns; and
- Exploring ways to enhance van/carpool incentives, alternative work schedules, and other Transportation Demand Management strategies.<sup>37</sup>

#### Particulate Matter Plans<sup>38</sup>

The SJVAB was designated nonattainment of state and federal health-based air quality standards for PM<sub>10</sub>. However, as discussed below, the SJVAB has demonstrated attainment of the federal PM<sub>10</sub> standards and currently remains in nonattainment only for the state standards. The SJVAB is also designated nonattainment of state and federal standards for PM<sub>2.5</sub>.

To meet CAA requirements for the PM<sub>10</sub> standard, the Air District adopted a PM<sub>10</sub> Attainment Demonstration Plan (Amended 2003 PM<sub>10</sub> Plan and 2006 PM<sub>10</sub> Plan), which had an attainment date of 2010. The Air District adopted the *2007 PM<sub>10</sub> Maintenance Plan* in September 2007 to assure the San Joaquin Valley's continued attainment of the EPA's PM<sub>10</sub> standard. The EPA designated the San Joaquin Valley as an attainment/maintenance area for PM<sub>10</sub> on September 25, 2008. Although the San Joaquin Valley has exceeded the standard since then, those days were considered exceptional events that are not considered a violation of the standard for attainment purposes.

On April 30, 2008, the Air District adopted the *2008 PM<sub>2.5</sub> Plan* satisfying federal implementation requirements for the 1997 federal PM<sub>2.5</sub> standard. However, on the verge of the demonstration of attainment with the standard the SJVAB was plagued with extreme drought, stagnation, strong inversions, and historically dry conditions and could not achieve attainment by the 2015 deadlines. The *2015 Plan for the 1997 PM<sub>2.5</sub> Standard* (2015 PM<sub>2.5</sub> Plan) was adopted by the Air District on April 16, 2015, and is a continuation of the Air District's strategy to improve the air quality in the SJVAB. The 2015 PM<sub>2.5</sub> Plan contains stringent measures, best available control measures, additional enforceable commitments for further reductions in emissions, and ensures attainment of the 1997 federal 24-hour standard (65 µg/m<sup>3</sup>) by 2018 and the annual standard (15 µg/m<sup>3</sup>) by 2020.

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<sup>37</sup> Ibid. 3.3-13.

<sup>38</sup> The various particulate matter plans can be found on the Air District's website at: [http://www.valleyair.org/Air\\_Quality\\_Plans/PM\\_Plans.htm](http://www.valleyair.org/Air_Quality_Plans/PM_Plans.htm).



In December 2012, the Air District adopted the *2012 PM<sub>2.5</sub> Plan* to bring the San Joaquin Valley into attainment of the EPA's 2006 24-hour PM<sub>2.5</sub> standard of 35 µg/m<sup>3</sup>. The ARB approved the Air District's 2012 PM<sub>2.5</sub> Plan for the 2006 standard at a public hearing on January 24, 2013. This plan seeks to bring the San Joaquin Valley into attainment with the standard by 2019, with the expectation that most areas will achieve attainment before that time.

EPA lowered the annual PM<sub>2.5</sub> standard in 2012 to 12 µg/m<sup>3</sup>. The Air District adopted the *2016 Moderate Area Plan for the 2012 PM<sub>2.5</sub> Standard* on September 15, 2016. This plan addresses the federal annual PM<sub>2.5</sub> standard established in 2012 and includes an attainment impracticability demonstration and request for reclassification of the Valley from Moderate nonattainment to Serious nonattainment.

The Air District adopted the *2018 Plan for the 1997, 2006, and 2012 PM<sub>2.5</sub> Standards* on November 15, 2018. This plan addresses the EPA federal 1997 annual PM<sub>2.5</sub> standard of 15 µg/m<sup>3</sup> and 24-hour PM<sub>2.5</sub> standard of 65 µg/m<sup>3</sup>; the 2006 24-hour PM<sub>2.5</sub> standard of 35 µg/m<sup>3</sup>; and the 2012 annual PM<sub>2.5</sub> standard of 12 µg/m<sup>3</sup>. This plan demonstrates attainment of the federal PM<sub>2.5</sub> standards as expeditiously as practicable. The Air District continues to work with EPA on issues surrounding these plans, including EPA implementation updates.

The County continues to evaluate and consider Federal, State, and Air District programs in order to respond to the non-attainment designation for state PM<sub>10</sub> standards that the SJVAB has received. "On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM<sub>10</sub> NAAQS and approved the PM<sub>10</sub> Maintenance Plan. However, prior to this redesignation, Tulare County Board of Supervisors adopted the following resolution (Resolution 2002-0812) on October 29, 2002. Although now designated in attainment of the federal PM<sub>10</sub> standard, all requirements included in the AIR DISTRICT PM<sub>10</sub> Plan are still in effect. The resolution contains the following Best Available Control Measures (BACMs) to be implemented in order to reduce PM<sub>10</sub> emissions in the County:

1. Paving or stabilizing of unpaved roads and alleys;
2. Paving, vegetating, chemically stabilizing unpaved access points onto paved roads;
3. Curbing, paving, or stabilizing shoulders on paved roads;
4. Frequent routine sweeping or cleaning of paved roads;
5. Intensive street cleaning requirements for industrial paved roads and streets providing access to industrial/ construction sites; and
6. Debris removal after wind and rain runoff when blocking roadways."<sup>39</sup>

### Criteria Pollutant Emissions

To assess air quality impacts, the Air District has established significance thresholds to assist Lead Agencies in determining whether a project may have a significant air quality impact<sup>40</sup>. The Air

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<sup>39</sup> Tulare County General Plan 2030 Update RDEIR. Page 3.3-14.

<sup>40</sup> Air District, Guidance for Assessing and Mitigating Air Quality Impacts. Page 74.



District's thresholds of significance for criteria pollutants, which are based on Air District Rule 2201 (New and Modified Stationary Source Review) offset thresholds, are provided in **Table 3.3-7**. As shown in the Table, the Air District has three sets of significance thresholds for each pollutant based on the source of the emissions. According to the Air District's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI), "The District identifies thresholds that separate a project's short-term emissions from its long-term emissions. The short-term emissions are mainly related to the construction phase of a project and are recognized to be short in duration. The long-term emissions are mainly related to the activities that will occur indefinitely as a result of project operations."<sup>41</sup>

<b>Table 3.3-7</b>			
<b>Air Quality Thresholds of Significance – Criteria Pollutants</b>			
<b>Pollutant/ Precursor</b>	<b>Construction Emissions</b>	<b>Operational Emissions</b>	
		<b>Permitted Equipment and Activities</b>	<b>Non- Permitted Equipment and Activities</b>
	<b>Emissions (tpy)</b>	<b>Emissions (tpy)</b>	<b>Emissions (tpy)</b>
<b>CO</b>	100	100	100
<b>NO<sub>x</sub></b>	10	10	10
<b>ROG</b>	10	10	10
<b>SO<sub>x</sub></b>	27	27	27
<b>PM<sub>10</sub></b>	15	15	15
<b>PM<sub>2.5</sub></b>	15	15	15
<i>Source: Air District, GAMAQI, Table 2, page 80</i>			

Operational emissions are further separated into permitted and non-permitted equipment and activities. Stationary (permitted) sources that comply or will comply with Air District rules and regulations are generally not considered to have a significant air quality impact. Specifically, the GAMAQI states, "District Regulation II ensures that stationary source emissions will be reduced or mitigated to below the District's significance thresholds. However, the Lead Agency can, and should, make an exception to this determination if special circumstances suggest that the emissions from any permitted or exempt source may cause a significant air quality impact. For example, if a source may emit objectionable odors, then odor impacts on nearby receptors should be considered a potentially significant air quality impact. District implementation of New Source Review (NSR) ensures that there is no net increase in emissions above specified thresholds from New and Modified Stationary Sources for all nonattainment pollutants and their precursors. Furthermore, in general, permitted sources emitting more than the NSR Offset Thresholds for any criteria pollutant must offset all emission increases in excess of the thresholds. However, under certain

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<sup>41</sup> Ibid. 75.



circumstances, the District may be precluded by state law or other District rule requirements from requiring a stationary source to offset emissions increases.”<sup>42</sup>

#### Air District Rules and Regulations<sup>43</sup>

The Air District is primarily responsible for regulating stationary source emissions within the SJVAB and preparing the air quality plans (or portions thereof) for its jurisdiction. The Air District’s primary approach of implementing local air quality plans occurs through the adoption of specific rules and regulations. Stationary sources within the jurisdiction are regulated by the Air District’s permit authority over such sources and through its review and planning activities. The following Air District rules and regulations that may apply to this Project include, but are not limited to, the following:

**Regulation VIII – Fugitive PM<sub>10</sub> Prohibitions.** The Air District adopted its Regulation VIII on October 21, 1993 and amended on August 8, 2004 to implement Best Available Control Measures (BACM). This Regulation consists of a series of emission reduction rules consistent with the PM<sub>10</sub> Maintenance Plan. These rules are designed to reduce PM<sub>10</sub> emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track-out, etc. All development projects that involve soil disturbance are subject to at least one provision of the Regulation VIII series of rules. Regulation VIII specifically addresses the following activities:

- Construction, Demolition, Excavation, Extraction and Other Earthmoving Activities (Rule 8021);
- Bulk Materials (including Handling and Storage) (Rule 8031);
- Carryout and Track-Out (Rule 8041);
- Open Areas (Rule 8051);
- Paved and Unpaved Roads (Rule 8061); and
- Unpaved Vehicle/Equipment Parking (including Shipping and Receiving, Transfer, Fueling, and Service Areas) (Rule 8071).

**Rule 2201 – New and Modified Stationary Source Review.** This rule applies to all new stationary sources and all modifications to stationary sources which are subject to Air District Permit Requirements. Rule 2201 requires stationary source projects that exceed certain thresholds to install best available control technology (BACT) and to obtain emission offsets to ensure that growth in stationary sources on a cumulative basis will not result in an increase in emissions. This Project is subject to BACT requirements.

**Rule 4001 (New Source Performance Standards).** This rule requires all new sources of air pollution and modification of existing sources of air pollution to comply with the standards,

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<sup>42</sup> Op. Cit. 76.

<sup>43</sup> For a full list of Air District rules and regulations, see their website at: <http://www.valleyair.org/rules/1ruleslist.htm>.



criteria, and requirements of Part 60, Chapter 1, Title 40, Code of Federal Regulation (CFR). This Project is subject to Subpart OOO, Nonmetallic Mineral Processing Plants.

**Rule 4002 – National Emissions Standards for Hazardous Air Pollutants.** The purpose of the rule is to incorporate the National Emission Standards for Hazardous Air Pollutants from Part 61, Chapter I, Subchapter C, Title 40, Code of Federal Regulations and the National Emission Standards for Hazardous Air Pollutants for Source Categories from Part 63, Chapter I, Subchapter C, Title 40, Code of Federal Regulations to protect the health and safety of the public from HAPs, such as asbestos. This rule will apply in the event that the existing on-site residential unit (which will be used as an office) or other structures undergo renovation or remodeling activities.

**Rule 4101 – Visible Emissions.** The purpose of this rule is to prohibit the emissions of visible air contaminants to the atmosphere. The provisions of this rule shall apply to any source operation which emits or may emit air contaminants.

**Rule 4102 – Nuisance.** The purpose of this rule is to protect the health and safety of the public, and applies to any source operation that emits or may emit air contaminants or other materials.

**Rule 4309 (Dryers, Dehydrators, and Ovens).** This purpose of this rule is to limit emissions of oxides of nitrogen (NO<sub>x</sub>) and carbon monoxide (CO) from dryers, dehydrators, and ovens and applies to any dryer, dehydrator, or oven that is fired on gaseous fuel, liquid fuel, or is fired on gaseous and liquid fuel sequentially, and the total rated heat input for the unit is 5.0 million British thermal units per hour (5.0 MMBtu/hr) or greater.

**Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).** This purpose of this rule is to limit VOC emissions by restricting the application and manufacturing of certain types of asphalt for paving and maintenance operations. To comply with this rule the asphalt oil manufacturers produce materials that are in compliance with the rule.

The Air District has limited authority to regulate transportation sources and indirect sources that attract motor vehicle trips.

**Rule 9510 – Indirect Source Review.** This rule reduces the impact of NO<sub>x</sub> and PM<sub>10</sub> emissions from growth on the Air Basin. The rule places application and emission reduction requirements on development projects meeting applicability criteria in order to reduce emissions through on-site mitigation, off-site Air District-administered projects, or a combination of the two. The rule defines a development project as a project, or portion thereof, that results in the construction of a building or facility for the purpose of increasing capacity or activity.<sup>44</sup> The rule also exempts any development project on a facility whose primary functions are subject to Air District permitting requirements.<sup>45</sup> The Project includes the development of an asphalt concrete batch plant which is subject to Air District permitting requirements; therefore, the Project is not subject to Rule 9510.

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<sup>44</sup> Air District Rule 9510. Section 3.13 which can be accessed at: <http://www.valleyair.org/rules/1ruleslist.htm>.

<sup>45</sup> Ibid. Section 4.4.3.



### Air District's CEQA Role

As a public agency, the District takes an active part in the intergovernmental review process under CEQA. In carrying out its duties under CEQA, the District may act as a Lead Agency, a Responsible Agency, or a Trustee/Commenting Agency depending on the approvals required by the District and other land use agencies.

“The District is always the Lead Agency for projects such as the development of District rules and regulations. The District may be Lead Agency for projects subject to District permit requirements. As discussed above, for projects triggering BACT, the District has discretionary approval in deciding how to permit the project. For projects subject to BACT, the District serves as Lead Agency when no other agency has principal responsibility for approving the project.”<sup>46</sup>

“As a Responsible Agency, the District assists Lead Agencies by providing technical expertise in characterizing project-related impacts on air quality and is available to provide technical assistance in addressing air quality issues in environmental documents. When commenting on a Lead Agency's environmental analysis, the District reviews the air quality section of the analysis and other sections relevant to assessing potential impacts on air quality, i.e. sections assessing public health impacts. At the conclusion of its review the District may submit to the Lead Agency comments regarding the project air quality analysis. Where appropriate, the District will recommend feasible mitigation measures.”<sup>47</sup>

“As a Trustee Agency, the District assists Lead Agencies by providing technical expertise or tools in characterizing project-related impacts on air quality and identifying potential mitigation measures, and is available to provide technical assistance in addressing air quality issues in environmental documents. At the conclusion of its review the District may submit to the Lead Agency comments regarding the project air quality analysis. Where appropriate, the District will recommend feasible mitigation measures. The process is subject to change due to the District's continuous improvements efforts.”<sup>48</sup>

### ***Local Policy & Regulations***

#### Tulare County General Plan Policies

The General Plan has a number of policies that apply to projects within Tulare County. General Plan policies that relate to the Project are listed below:

**AQ-1.1 Cooperation with Other Agencies** - The County shall cooperate with other local, regional, Federal, and State agencies in developing and implementing air quality plans to achieve State and federal Ambient Air Quality Standards. The County shall partner with the Air District, Tulare County Association of Governments (TCAG), and the California Air Resource Board to achieve better air quality conditions locally and regionally.

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<sup>46</sup> Air District, GAMAQI. Page 50.

<sup>47</sup> Ibid. 51.

<sup>48</sup> Op. Cit. 52.



**AQ-1.2 Cooperation with Local Jurisdictions** - The County shall participate with cities, surrounding counties, and regional agencies to address cross-jurisdictional transportation and air quality issues.

**AQ-1.3 Cumulative Air Quality Impacts** - The County shall require development to be located, designed, and constructed in a manner that would minimize cumulative air quality impacts. Applicants shall be required to propose alternatives as part of the State CEQA process that reduce air emissions and enhance, rather than harm, the environment.

**AQ-1.4 Air Quality Land Use Compatibility** - The County shall evaluate the compatibility of industrial or other developments which are likely to cause undesirable air pollution with regard to proximity to sensitive land uses, and wind direction and circulation in an effort to alleviate effects upon sensitive receptors.

**AQ-1.5 California Environmental Quality Act (CEQA) Compliance** - The County shall ensure that air quality impacts identified during the CEQA review process are consistently and reasonably mitigated when feasible.

**AQ-1.7 Support Statewide Climate Change Solutions** - The County shall monitor and support the efforts of Cal/EPA, CARB, and the AIR DISTRICT, under AB 32 (Health and Safety Code Section 38501 et seq.), to develop a recommended list of emission reduction strategies. As appropriate, the County will evaluate each new project under the updated General Plan to determine its consistency with the emission reduction strategies.

## IMPACT ANALYSIS

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

**a) Conflict with or obstruct implementation of the applicable air quality plan?**

Project Impact Analysis:

*Less Than Significant Impact*

The CEQA Guidelines indicate that a significant impact would occur if the project would conflict with or obstruct implementation of the applicable Air Quality Plan (AQP). The Air District has determined that projects with emissions below the thresholds of significance for criteria pollutants would “Not conflict or obstruct implementation of the District’s air quality plan.” These thresholds are presented in **Table 3.3-7** [Table 3 of the AQ-GHG memo]. The Air District has also determined that a project would be considered to have a significant impact if the emissions are predicted to cause or contribute to a violation of ambient air quality standards. An Ambient Air Quality Analysis (AAQA) would be required if the project size exceeds the screening limits presented in Table 5 [of the AQ-GHG memo] and project emissions are predicted to exceed the AAQA screening threshold of 100 pounds per day.



An additional criterion regarding a project's implementation of AQP control measures was assessed to show specifically how the project helps to implement the AQP. Therefore, this document proposes the following criteria for determining project consistency with the current AQPs:

1. Will the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the District for Regional and Local Air Pollutants.
2. Will the project comply with applicable control measures in the AQPs? The primary control measures applicable to development projects are Regulation VIII—Fugitive PM<sub>10</sub> Prohibitions and District Rule 2201 (New and Modified Stationary Source Review)."

Consultant Alta Environmental prepared emissions calculations for the Project's construction-related activities and on-site operation-related stationary and mobile source emissions (included in Appendix "A" of the DEIR). The Authority to Construct applications provide quantification of emissions from the Project's stationary sources, including the equipment and stockpiles associated with the HMA plant, RAP plant, and concrete batch plant. The Health Risk Assessment also includes quantification of the stationary source emissions, but also includes quantification of construction-related emissions. The Ambient Air Quality Analysis Determination provides quantification of the average daily emissions for both construction- and operation-related activities. Project emissions were estimated assuming construction would take one year and the facility would operate 312 days per year (6 days a week for 52 weeks a year) at the maximum annual permitted capacity, except for stockpiles which were estimated using operation of 365 days per year.

RMA Staff prepared emissions calculations for the operation-related off-site mobile source emissions (see Attachment "A" of this memo). The emissions calculations were based on the proposed maximum annual permitted capacity and the projected annual Project trip generation (see Table 3 of the Traffic Impact Study, included in Appendix "F" of the DEIR). Consistent with the proposed development schedule with operations beginning in 2021, EMFAC emissions factors for 2021 were used to quantify emissions. Given the nature of the Project (manufacturing of construction-related materials) and that it is impossible to identify specific destinations of final product sales, Vehicle Miles Traveled (VMT) has been generalized for likely market areas (expressed as round-trip distances) as follows: 30 miles for local area; 68 miles for the Porterville area; 36 miles to the Fresno County line; and 74 miles to the Kern County Line. Approximately 85.8% of the Project's vehicle trips are attributable to heavy-duty (MHD and HHD) trucks used in the transport of raw material and final product. Approximately 1.4% of trips are attributable to outside service vehicles (LDT1, LDT2) and other materials and services (MDV). The remaining approximate 12.8% of the trips are attributable to employee vehicles (LDA, LDT1, LDT2, MDV).



**Table 3.3-8** provides the Project's construction-related emissions. **Table 3.3-9** provides the Project's operation-related emissions from permitted sources. **Table 3.3-10** provides the Project's on- and off-site operation-related emissions from non-permitted sources.

<b>Table 3.3-8 Project Construction Emissions (tons/year)</b>						
<b>Activity/Source</b>	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Site Preparation	0.0209	0.2125	0.1114	0.0002	0.1024	0.0601
Grading	0.0686	0.7543	0.4921	0.0010	0.1363	0.0817
Building Construction	0.3857	3.0340	2.8602	0.0085	0.5109	0.2089
Paving	0.0355	0.1413	0.1528	0.0003	0.0094	0.0074
Architectural Coating	0.4998	0.0194	0.0449	0.0001	0.0090	0.0032
<b>Construction Total</b>	<b>1.0104</b>	<b>4.1615</b>	<b>3.6614</b>	<b>0.0100</b>	<b>0.7680</b>	<b>0.3613</b>
Significance Threshold	10	10	100	27	15	15
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Note: Construction Year is 2020. Emissions include mobile source emissions. Source: Alta Environmental. Health Risk Assessment. Attachment 2, CalEEMod Emission Estimates.						

<b>Table 3.3-9 Project Permitted Operational Emissions (tons/year)</b>						
<b>Source</b>	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
<b>HMA Plant</b>						
RAP Cold Feed	---	---	---	---	0.0693	0.0693
Asphalt Dryer	0.8155	1.5369	9.1589	14.4283	1.7250	1.7250
Oil Heater	0.0121	0.0228	0.1357	0.2138	0.0130	0.0130
Oil Storage Tanks	0.511	---	---	---	---	---
Silo Filling / Loadout	1.2263	---	0.1898	---	0.0412	0.0412
Stockpiles	---	---	---	---	1.2375	1.2375
<b>Concrete Batch Plant</b>						
Concrete Batching	---	---	---	---	1.4418	1.4418
Stockpiles	---	---	---	---	1.6521	1.6521
<b>RAP Plant</b>						
RAP Processing	---	---	---	---	0.0231	0.0231
Stockpiles	---	---	---	---	0.3218	0.3218
<b>Permitted Total</b>	<b>2.5649</b>	<b>1.5597</b>	<b>9.4844</b>	<b>14.6421</b>	<b>6.5248</b>	<b>6.5248</b>
Significance Threshold	10	10	100	27	15	15
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Operation Year is 2021. Source: Alta Environmental, Authority to Construct Application – Hot Mix Asphalt Plant, Pages 7-12. Alta Environmental, Authority to Construct Application – Concrete Batch Plant, Pages 8-10. Alta Environmental, Authority to Construct Application – Concrete and Asphalt Recycling Plant, Pages 8-10. Alta Environmental, Ambient Air Quality Analysis Determination Alta Environmental, Health Risk Assessment						



<b>Table 3.3-10 Project Non-Permitted Operational Emissions (tons/year)</b>						
<b>Source</b>	<b>ROG</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
<i>On-Site Non-Permitted Sources<sup>1</sup></i>						
On-Site Truck Exhaust	0.096	1.177	0.979	0.003	0.008	0.008
On-Site Truck Fugitive Dust	---	---	---	---	0.207	0.207
Off-Road Equipment	0.113	0.243	2.23	0.000	0.008	0.007
<i>Off-Site Non-Permitted Sources<sup>2</sup></i>						
Aggregate Material Delivery Trucks	0.1256	4.1652	0.5087	0.0159	0.0690	0.0660
Oil Delivery Trucks	0.0025	0.0826	0.0101	0.0003	0.0014	0.0013
Propane Delivery Trucks	0.0005	0.0152	0.0019	0.0001	0.0003	0.0002
HMA Trucks	0.0673	2.2313	0.2725	0.0085	0.0370	0.0354
Cement & Fly Ash Delivery Trucks	0.0126	0.4165	0.0509	0.0016	0.0069	0.0066
Ready Mix Concrete Trucks	0.1121	3.7189	0.4542	0.0142	0.0616	0.0590
Recycled Material End Dumps	0.0115	0.3804	0.0465	0.0015	0.0063	0.0060
Recycled Material Delivery Trucks	0.0154	0.2225	0.0410	0.0007	0.0060	0.0057
Recycled Base Trucks	0.0135	0.4463	0.0545	0.0017	0.0074	0.0071
Fuel Trucks (for on-site equipment)	0.0003	0.0097	0.0012	0.0000	0.0002	0.0002
Outside Services	0.0008	0.0035	0.0355	0.0001	0.0001	0.0000
Other Materials/Services	0.0006	0.0028	0.0252	0.0001	0.0000	0.0000
Employee Trips	0.0093	0.0419	0.4321	0.0013	0.0006	0.0006
<b>Non-Permitted Total</b>	<b>0.5807</b>	<b>13.1568</b>	<b>5.1433</b>	<b>0.0489</b>	<b>0.4197</b>	<b>0.4102</b>
Significance Threshold	10	10	100	27	15	15
<b>Exceeds Threshold?</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Operation Year is 2021. 1 Source: Alta Environmental. Ambient Air Quality Analysis Determination and Health Risk Analysis. 2 Source: Attachment A of this memo, Annual Off-Site Emissions Table.						

As presented in **Table 3.3-8**, emissions of ROG, NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> associated with the construction of the Project would not exceed the Air District's significance thresholds; as such, the Project would not conflict with or obstruct implementation of the applicable AQP. Therefore, construction-related activities will have a **Less Than Significant Impact** related to this Checklist Item.

As presented in **Table 3.3-9**, emissions of ROG, NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> associated with the permitted equipment and on-site activities (stationary sources) of the Project would not exceed the Air District's significance thresholds; as such, the Project would not conflict with or obstruct implementation of the applicable AQP. Therefore, permitted operation-related activities will have a **Less Than Significant Impact** related to this Checklist Item.

As presented in **Table 3.3-10**, emissions of ROG, NO<sub>x</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> associated with the on-site non-permitted equipment and activities (mobile sources) of the Project would not exceed the Air District's significance thresholds. As presented in **Table 3.3-10**, NO<sub>x</sub>



emissions associated with the off-site non-permitted equipment and activities (mobile source emissions from transport of raw and final product, services and deliveries, and employee trips) will exceed the Air District's significance thresholds; emissions of ROG, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> from these sources will not exceed the thresholds.

The Project is subject to Air District rules and regulations including, Regulation VIII (Fugitive PM<sub>10</sub> Prohibition), Rules 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits), Rule 4001 (New Source Performance Standards), Rule 4101 (Visible Emissions), Rule 4102 (Public Nuisance), Rule 4309 (Dryers, Dehydrators, and Ovens), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). According to the Air District's GAMAQI, "Project subject to District rules and regulation would reduce its impacts on air quality through compliance with regulatory requirements."<sup>49</sup> Regarding Rule 2201, the GAMAQI states, "NSR is a major component of the District's attainment strategy as it relates to growth. It applies to new and modified stationary sources of air pollution. NSR provides mechanisms, including emission trade-offs, by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards. District implementation of NSR ensures that there is no net increase in emissions above specified thresholds from new and modified Stationary Sources for all nonattainment pollutants and their precursors."<sup>50</sup>

Mobile source emissions are under the jurisdiction of the ARB. The Applicant's on-site equipment and heavy-duty truck fleet (used to transport aggregate to the site from the Porterville plant) are currently ARB-compliant and will continue to comply with all applicable ARB rules and regulations. The Applicant does not own the heavy-duty trucks that will be used to transport finished product for sale. As truck registration is dependent upon compliance with ARB's truck regulations, it is reasonable to assume that all heavy-duty trucks accessing the Project site comply, and will continue to comply, with ARB regulations. As truck emissions are expected to become cleaner in the future and all heavy-duty truck fleets must have Year 2010 engine models by 2023, the Project-related NO<sub>x</sub> emissions are also expected to decrease with time.

The emissions inventories included in the Tulare County General Plan are consistent with and included in the AQP. The Project is consistent with the growth projections in the General Plan and will implement all applicable General Plan policies, including those that require compliance with Air District regulation and encourage emission reducing project design features.

As previously discussed, the Project will comply with all federal, state, and Air District rules and regulation, and is consistent with the Tulare County General Plan and the State SIP. However, the Air District's GAMAQI states, "the District recommends that mobile source (both exhaust emissions and fugitive dust emissions) be quantified separate from other non-permitted sources or activities. However, emissions from all non-permitted equipment and

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<sup>49</sup> Air District. GAMAQI, Section 8.2, Page 75.

<sup>50</sup> Air District. GAMAQI, Section 8.3.1, Page 81.



activities are summed by criteria pollutant when determining significance. A project would be determined to have a significant, long-term impact on air quality if any criteria pollutant resulting from non-permitted equipment and activities exceeds its respective threshold of significance.”<sup>51</sup> As such, Project-related off-site mobile source NOx emissions would result in a ***Significant and Unavoidable Project-specific Impact*** to Air Quality.

### Ambient Air Quality Analysis

Pursuant to Air District recommendations and following Air District procedures, consultant Alta Environmental evaluated the Project’s daily emissions to determine whether an AAQA would be warranted for the Project. Project daily emissions were estimated assuming construction would take one year and the facility would operate 312 days per year (6 days a week for 52 weeks a year) at maximum annual permitted capacity, except for stockpiles which were estimated using operation of 365 days per year.

**Table 3.3-11** provides the Project’s daily construction-related emissions. **Table 3.3-12** provides the Project’s daily operation-related emissions from permitted source. **Table 3.3-13** provides the Project’s daily operation-related emissions from non-permitted sources.

<b>Table 3.3-11</b>						
<b>Daily Construction Emissions (pounds/day)</b>						
<b>Construction Phase</b>	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Site Preparation	4.19	42.50	22.28	0.04	20.49	12.02
Grading	4.57	50.29	32.81	0.06	9.08	5.45
Building Construction	4.43	34.87	32.88	0.10	5.87	2.40
Paving	3.55	14.13	15.28	0.03	0.94	0.74
Architectural Coating	49.98	1.94	4.49	0.01	0.90	0.32
<b>Max Daily Construction</b>	<b>49.98</b>	<b>50.29</b>	<b>32.88</b>	<b>0.10</b>	<b>20.49</b>	<b>12.02</b>
<b>Exceeds 100 lb/day?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Source: Alta Environmental. Ambient Air Quality Analysis Determination						

<b>Table 3.3-12</b>						
<b>Daily Permitted Operational Emissions (pounds/day)</b>						
<b>Source</b>	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Concrete Batch Plant	---	---	---	---	9.23	9.23
RAP Processing Plant	---	---	---	---	0.15	0.15
HMA Dryer	5.26	9.87	58.72	92.50	11.09	11.09
HMA Oil Heater	0.08	3.81	0.96	1.37	0.08	0.08
HMA Cold Feed RAP	---	---	---	---	0.36	0.36
HMA Silo Filling	5.86	---	0.57	---	0.01	0.01
HMA Silo Loadout	2.00	---	0.65	---	0.25	0.25
HMA Oil Tanks	2.80	---	---	---	---	---
<b>Total Daily Operations</b>	<b>15.99</b>	<b>13.69</b>	<b>60.89</b>	<b>93.87</b>	<b>21.17</b>	<b>21.17</b>
<b>Exceeds 100 lb/day?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Source: Alta Environmental. Ambient Air Quality Analysis Determination						

<sup>51</sup> Air District. GAMAQI, Section 8.3.7, Page 89.



<b>Table 3.3-13</b>						
<b>Daily Non-Permitted Operational Emissions (pounds/day)<sup>1</sup></b>						
<b>Source</b>	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
HMA Storage Pile	---	---	---	---	6.79	6.79
Concrete Storage Pile	---	---	---	---	9.04	9.04
RAP Storage Pile	---	---	---	---	1.75	1.75
Truck Exhaust (on-site)	0.62	7.55	6.28	0.02	0.05	0.05
Truck Fugitive Dust (on-site)	---	---	---	---	1.33	1.33
Off Road Equipment	0.73	1.56	14.29	---	0.05	0.05
Vehicle Exhaust (off-site trucks and employee trips) <sup>2</sup>	2.38	75.24	12.40	0.29	1.26	1.21
<b>Total Daily Operations</b>	<b>3.72</b>	<b>84.34</b>	<b>32.97</b>	<b>0.31</b>	<b>20.28</b>	<b>20.28</b>
<b>Exceeds 100 lb/day?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
1 Source: Alta Environmental. Ambient Air Quality Analysis Determination						
2 Source: Attachment "A" of this memo, Table 3						

As presented in **Tables 3.3-11-3.3-13**, daily emissions of ROG, NOx, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> associated with the construction and operation of the Project would not exceed the Air District's AAQA screening thresholds of 100 pound per day. Total combined daily operation-related emissions (permitted and non-permitted) are 19.71 lb/day ROG, 98.03 lb/day NOx, 93.86 lb/day CO, 94.18 lb/day SO<sub>2</sub>, 41.45 lb/day PM<sub>10</sub>, and 41.45 lb/day PM<sub>2.5</sub> which are also below the Air District's thresholds. As such, the Project will not conflict with or obstruct implementation of the applicable AQP. Therefore, the Project will have a **Less Than Significant Project-specific Impact** related to this Checklist Item.

### ***Compliance with Applicable Air Quality Plan Control Measures***

The AQP contains a number of control measures, which are enforceable requirements through the adoption of rules and regulations. As previously noted, the Project is subject to Air District rules and regulations including, Regulation VIII (Fugitive PM<sub>10</sub> Prohibition), Rules 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits, Rule 4001 (New Source Performance Standards), Rule 4101 (Visible Emissions), Rule 4102 (Public Nuisance), Rule 4309 (Dryers, Dehydrators, and Ovens), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

**Regulation VIII—Fugitive PM<sub>10</sub> Prohibitions** is a control measure that is one of the main strategies from the 2006 PM<sub>10</sub> Plan for reducing the PM<sub>10</sub> emissions that are part of fugitive dust. The Air District adopted its Regulation VIII on October 21, 1993 and amended on August 8, 2004 to implement Best Available Control Measures (BACM). This Regulation consists of a series of emission reduction rules consistent with the PM<sub>10</sub> Maintenance Plan. These rules are designed to reduce PM<sub>10</sub> emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track-out, etc.

**Rules 2201 (New and Modified Stationary Source Review)** applies to all new stationary sources which are subject to Air District Permit Requirements. Rule 2201 requires stationary source projects that exceed certain thresholds to install Best Available Control Technology



(BACT) and to obtain emission offsets to ensure that growth in stationary sources on a cumulative basis will not result in an increase in emissions. The Project will comply with Air District permitting requirements under Rule 2201.

The Project will comply with all applicable Air District rules and regulations. Therefore, the Project complies with this criterion and would not conflict with or obstruct implementation of the applicable AQP.

The 2016 Plan for the 2008 8-Hour Ozone Standard was adopted in June 2016. The 2015 Plan for the 1997 PM<sub>2.5</sub> Standard was adopted in April 2015 and the 2016 Moderate Area Plan for the 2012 PM<sub>2.5</sub> Standard was adopted in September 2016. The plans assume growth would occur at rates projected by the State and regional population forecasts and would result in the continued need for rock and aggregate for construction projects. Therefore, the Project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality attainment plan.

The Project will comply with all applicable Air District rules and regulations including BACT requirements. The Project will provide necessary construction materials for future growth as projected by the State. As such, the Project is in compliance with AQP control measures and would not conflict with or obstruct implementation of the applicable AQP. The Project will have a ***Less Than Significant Project-specific Impact*** related to this Checklist Item.

Cumulative Impact Analysis: ***Significant and Unavoidable Cumulative Impact***

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. The Project would be considered to have a significant cumulative impact on air quality if Project-specific impacts are determined to be significant. As previously discussed, Project construction-related criteria pollutant emissions would not exceed Air District significance thresholds. Project operation-related ROG, CO, SO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> emissions also would not exceed Air District significant thresholds. While permitted operation-related NO<sub>x</sub> emissions do not exceed the significance threshold, NO<sub>x</sub> emissions from off-site mobile sources do exceed the threshold. The Project will comply with all applicable federal, State and Air District rules and regulations and will not result in daily emissions that would exceed 100 pound per day; as such, the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. However, because mobile source NO<sub>x</sub> emissions are considered to have a Significant and Unavoidable Project-specific Impact, the Project's impacts are also considered cumulatively significant. Therefore, the Project will result in a ***Significant and Unavoidable Cumulative Impact*** related this Checklist Item.

Mitigation Measure(s): ***No Additional Measures beyond Compliance with Existing Regulation Required.***

Conclusion: ***Less Than Significant Impacts***



The Project is subject to Air District permitting requirements and various Air District rules and regulations including: Regulation VIII (Fugitive PM10 Prohibition), Rules 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits, Rule 4001 (New Source Performance Standards), Rule 4101 (Visible Emissions), Rule 4102 (Public Nuisance), Rule 4309 (Dryers, Dehydrators, and Ovens), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). As demonstrated in **Table 3.3-9**, the Project's permitted sources will not exceed the Air District's thresholds of significance for any criteria pollutant. As such, mitigation is not required to reduce permitted emissions to a level of less than significant.

As demonstrated in **Table 3.3-10**, the Project's non-permitted sources, specifically the heavy-duty truck trips, will exceed the Air District's thresholds of significance for NOx. Mobile source emissions are under the jurisdiction of the ARB. The Applicant's on-site equipment and heavy-duty truck fleet are currently ARB-compliant and will continue to comply with all applicable ARB rules and regulations. The Applicant does not own the heavy-duty trucks that will be used to transport finished product for sale. As truck registration is dependent upon compliance with ARB's truck regulations, it is reasonable to assume that all heavy-duty trucks accessing the Project site comply, and will continue to comply, with ARB regulations. As truck emissions are expected to become cleaner in the future and all heavy-duty truck fleets must have Year 2010 engine models by 2023, the Project-related emissions are also expected to decrease with time.

The emissions inventories included in the Tulare County General Plan are consistent with and included in the AQP. The Project is consistent with the growth projections in the General Plan and will implement all applicable General Plan policies, including those that require compliance with Air District regulation and encourage emission reducing project design features.

As previously discussed, the Project will comply with all federal, state, and Air District rules and regulation, and is consistent with and will implement all applicable policies of Tulare County General Plan. The Applicant does not have control over the heavy-duty vehicles used in transport of final product from the site. Furthermore, as this is a new facility and actual production and sales are speculative at this time, it is unknown if the maximum production capacity will be achieved. As such, feasible mitigation consists of existing rules, regulations, and requirements.

**b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?**

Project Impact Analysis:

*Significant and Unavoidable Impact*

See Item a), earlier, and Cumulative Impact Analysis, below.

Cumulative Impact Analysis:

*Significant and Unavoidable Impact*



To result in a less than significant cumulative impact, the following three (3) criteria must be true:

1. Regional analysis: emissions of nonattainment pollutants must be below the Air District's regional significance thresholds. This is an approach recommended by the Air District in its GAMAQI.
2. Summary of projections: the project must be consistent with current air quality attainment plans including control measures and regulations. This is an approach consistent with Section 15130(b) of the CEQA Guidelines.
3. Cumulative health impacts: the project must result in less than significant cumulative health effects from the nonattainment pollutants. This approach correlates the significance of the regional analysis with health effects, consistent with the court decision, *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219-20.

The first criteria used to evaluate potential Project impacts is to determine if the Project's emissions are below the Air District's significance thresholds. As previously discussed in Checklist Item a) "*Contribution to Air Quality Violations*" and demonstrated in **Tables 10 and 11**, the Project's construction-related and permitted operation-related criteria pollutant emissions would not exceed Air District significance thresholds for any criteria pollutant. The Project's non-permitted (mobile source) operation-related ROG, CO, SO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> emissions also would not exceed Air District significant thresholds; however, NO<sub>x</sub> emissions from the mobile sources do exceed the threshold. Mobile source emissions are under the jurisdiction of the ARB. The Applicant's on-site equipment and heavy-duty truck fleet are currently ARB-compliant and will continue to comply with all applicable ARB rules and regulations. The Applicant does not own the heavy-duty trucks that will be used to transport finished product for sale. As truck registration is dependent upon compliance with ARB's truck regulations, it is reasonable to assume that all heavy-duty trucks accessing the Project site comply, and will continue to comply, with ARB regulations. As truck emissions are expected to become cleaner in the future and all heavy-duty truck fleets must have Year 2010 engine models by 2023, the Project-related NO<sub>x</sub> emissions are also expected to decrease with time. The Project will comply with all applicable federal, State and Air District rules and regulations and will not result in daily emissions, from construction activities, permitted equipment/activities, or non-permitted equipment/activities, that would exceed the AAQA screening threshold of 100 pound per day. As such, the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. However, because mobile source NO<sub>x</sub> emissions exceed the Air District's significance thresholds they are considered to result in Significant Project-specific Impact. As such, the Project's impacts are also considered cumulatively significant. Therefore, the Project will result in a ***Significant and Unavoidable Cumulative Impact*** related this Checklist Item.



The second criteria used to evaluate potential Project impacts is to determine if the Project is consistent with current AQPs including control measures and regulations. In accordance with CEQA Guidelines 15130(b), this part of the analysis of cumulative impacts is based on a summary of projections analysis. This analysis considers the current CEQA Guidelines, which includes the amendments approved by the Natural Resources Agency, effective on December 28, 2018. Under the amended CEQA Guidelines, cumulative impacts may be analyzed using other plans that evaluate relevant cumulative effects. The AQPs describe and evaluate the future projected emissions sources in the San Joaquin Valley Air Basin and set forth a strategy to meet both state and federal Clean Air Act planning requirements and federal ambient air quality standards. The Air District AQP are based on a summary of projections that accounts for projected growth throughout the Air Basin, and the controls needed to achieve ambient air quality standards. In accordance with CEQA Guidelines Section 15064(h)(3), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously approved plan or mitigation program. Therefore, the plans are relevant plans for a CEQA cumulative impacts analysis. As discussed in Checklist Item a) "*Compliance with Applicable Air Quality Plan Control Measures*" the Project is consistent with all applicable control measures in the air quality attainment plans. The Project would comply with any District rules and regulations that may pertain to implementation of the AQPs. Therefore, impacts would be less than significant with regard to compliance with applicable rules and regulations. Therefore, according to this criterion, this impact is ***Less Than Significant***.

The third criteria used to evaluate potential Project impacts is to determine if the Project would result in less than significant cumulative health effects from the nonattainment pollutants. In the 5th District Court of Appeal case *Sierra Club v. County of Fresno (Friant Ranch, L.P.)*, the Court found the project EIR deficient because it did not identify specific health related effects resulting from the estimated amount of pollutants generated by the project. The ruling stated that the EIR should give a "sense of the nature and magnitude of the 'health and safety problems' caused by a project's air pollution. The EIR should translate the emission numbers into adverse impacts or to understand why such translation is not possible at this time (and what limited translation is, in fact, possible)."

The standard measure of the severity of impact is the concentration of pollutant in the atmosphere compared to the ambient air quality standard for the pollutant for a specified period of time. The severity of the impact increases with the concentration and the amount of time that people are exposed to the pollutant. The change in health impacts with concentration are described in the Air Quality Index (AQI) tables found on the Environmental Protection Agency's (EPA) AirNow website, and presented in **Table 3.3-5** and **Table 3.3-6**. The pollutants of concern in the Friant Ranch ruling were regional criteria pollutants ozone, and PM10. It is important to note that the potential for localized impacts can be addressed through dispersion modeling. The Air District includes screening criteria that if exceeded would require dispersion modeling to determine if project emissions would result in a significant health impact. For this Project, no significant localized health impacts would occur (see the Health Risk Assessment included in Appendix "A" of the EIR). Regional pollutants require more complex modeling as described below.



Ozone concentrations are estimated using regional photochemical models because ozone formation is subject to temperature, inversion strength, sunlight, emissions transport over long distances, dispersion, and the regional nature of the precursor emissions. The emissions from individual projects are too small to produce a measurable change in ozone concentrations—it is the cumulative contribution of emissions from existing and new development that is accounted for in the photochemical model. Ozone concentrations vary widely throughout the day and year even with the same amount of daily emissions. The Air District indicated in an Amicus Brief on Friant Ranch that running the photochemical model with just Friant Ranch emissions (109.5 tons/year NO<sub>x</sub>) is not likely to yield valid information given the relative scale involved. A copy of the Air District's brief is included in Attachment "B" in this memo. The NO<sub>x</sub> inventory for the San Joaquin Valley is 224 tons per day in 2019 or 81,760 tons per year. Friant Ranch would result in 0.13 percent increase in NO<sub>x</sub> emissions. A project emitting at the Air District CEQA threshold of 10 tons per year would result in a 0.01 percent increase in NO<sub>x</sub> emissions. Most project emissions are generated by motor vehicle travel distributed on regional roadways miles from the project site, and these emissions are not conducive to project-level modeling.

Emissions throughout the San Joaquin Valley are projected to markedly decline in the coming decade. The Air District's 2016 Ozone Plan predicts NO<sub>x</sub> emissions will decline to 103 tons per day by 2029 or 54 percent from 2019 levels through implementation of control measures included in the plan. This means that ozone health impacts to residents of the San Joaquin Valley will be lower than currently experienced and most areas of the San Joaquin Valley will have attained ozone air quality standards. The plan accounts for growth in population at rates projected by the State of California for the San Joaquin Valley, so only cumulative projects that would exceed regional growth projections would potentially delay attainment and prolong the time and the number of people would experience health impacts. It is unlikely that anyone would experience greater impacts from regional emissions than currently occur. The federal transportation conformity regulation provides a means of ensuring growth in emissions does not exceed emission budgets for each County. Regional Transportation Plans and Regional Transportation Improvement Plans must provide a conformity analysis based on the latest planning assumptions that demonstrates that budgets will not be exceeded. If budgets are exceeded, the San Joaquin Valley may be subject to Clean Air Act sanctions until the deficiency is addressed.

Particulate emission impacts can be localized and regional. Particulates can be directly emitted and can be formed in the atmosphere with chemical reactions. Small directly emitted particles such as diesel emissions and other combustion emissions can remain in the atmosphere for a long time and can be transported over long distances. Large particles such as fugitive dust tend to be deposited a short distance from where emitted but can also travel long distances during periods of high winds. Particulates can be washed out of the atmosphere by rain and deposited on surfaces. Secondary particulates formed in the atmosphere such as ammonium nitrate require NO<sub>x</sub> and ammonia and require low inversion levels, and certain ranges of temperature and humidity to result in substantial concentrations. These complications make modeling project particulate emissions to determine concentration feasible only for directly emitted



particles at receptor locations close to the project site. Regional particulate concentrations are modeled using a gridded inventory (emissions in tons/day are placed within a 4-kilometer, three-dimensional grid to spatially allocate the emissions geographically) and an atmospheric chemistry component is used to simulate the chemical reactions. The model uses relative reduction factors to determine the amount of reductions of each PM component will be needed to attain the air quality standards on the days with the conditions most favorable to high particulate concentrations. Only very large projects with emissions well in excess of Air District thresholds of significance would produce sufficient emissions to determine a project's individual contribution to the particulate concentration and health impact.

The Air Basin is in nonattainment for ozone, PM<sub>10</sub> (State only), and PM<sub>2.5</sub>, which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (such as children, the elderly, and the infirm). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience health effects that are described in the EPA's AQI Calculator tables. However, the health effects are a factor of the dose-response curve. Concentration of the pollutant in the air (dose), the length of time exposed, and the response of the individual are factors involved in the severity and nature of health impacts. If a significant health impact results from project emissions, it does not mean that 100 percent of the population would experience health effects. The "*Air Quality Monitoring Summary*" table provided in the "*Air Quality Conditions in Tulare County*" discussion of the DEIR relates the pollutant concentration experienced by residents using air quality data for the nearest air monitoring station to the health impacts ascribed to those concentrations by the EPA AQI. This provides a more detailed look at the actual impacts currently experienced by residents near the project site.

Since the Air Basin is nonattainment for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>, it is considered to have an existing significant cumulative health impact without the Project. When this occurs, the analysis considers whether the Project's contribution to the existing violation of air quality standards is cumulatively considerable. The Air District's regional thresholds for NO<sub>x</sub>, VOC, PM<sub>10</sub>, or PM<sub>2.5</sub> are applied as cumulative contribution thresholds. Projects that exceed the regional thresholds would have a cumulatively considerable health impact. As shown in **Table 3.3-10**, the regional analysis of operational emissions indicates that the Project's NO<sub>x</sub> emissions from heavy-duty truck emissions would exceed the District's significance thresholds if the facility operates at maximum permitted capacity in its opening year (2021). However, maximum permitted capacity presents the worst-case emissions scenario. As truck emissions are expected to become cleaner in the future and all heavy-duty truck fleets must have Year 2010 engine models by 2023, the Project-related NO<sub>x</sub> emissions are also expected to decrease with time. Furthermore, the Air District's AQPs predict that nonattainment pollutant emissions will continue to decline each year as regulations adopted to reduce these emissions are implemented, accounting for growth projected for the region. Therefore, the cumulative health impact will also decline even with the Project's emission contribution. Therefore, according to this criterion, this impact is ***Less Than Significant***



Mitigation Measure(s):

***No Additional Measures beyond Compliance with Existing Regulation Required.***

As discussed in Checklist Item a), the Project will comply with all federal, state, and Air District rules and regulation, and is consistent with and will implement all applicable policies of Tulare County General Plan. Mobile source emissions are under the jurisdiction of the ARB. The Applicant's fleet is compliant with current ARB truck regulations and will continue to comply with all applicable ARB rules and regulations. The Applicant does not have control over the heavy-duty vehicles used in transport of final product from the site. As truck registration is dependent upon compliance with ARB's truck regulations, it is reasonable to assume that all heavy-duty trucks accessing the Project site comply, and will continue to comply, with ARB regulations. As truck emissions are expected to become cleaner in the future and all heavy-duty truck fleets must have Year 2010 engine models by 2023, the Project-related NOx emissions are also expected to decrease with time. Furthermore, as this is a new facility and actual production and sales are speculative at this time, it is unknown if the maximum production capacity will be achieved. As such, feasible mitigation consists of existing rules, regulations, and requirements

Conclusion:

***Significant and Unavoidable Impacts***

As previously noted, Project non-permitted operation-related (mobile source) NOx emissions exceed the Air District's significance thresholds. The Project will be required to implement all applicable General Plan policies and to comply with all applicable Air District rules and regulations. However, the Applicant does not own all the trucks that will transport final product from the Project site. Therefore, the Project will have a ***Significant and Unavoidable Cumulative Impact*** related to this Checklist Item.

**c) Expose sensitive receptors to substantial pollutant concentrations?**

Project Impact Analysis:

***Less Than Significant Impact***

Sensitive receptors are those individuals who are sensitive to air pollution and include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. The Air District considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include schools, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential dwelling units. Consultant Alta Environmental prepared a Health Risk Assessment (HRA) consistent with San Joaquin Valley Air District protocols which concluded that the Project would not exceed any Air District thresholds for toxic air contaminants (TACs). The HRA is included in appendix "A" of this Draft EIR.

As noted in the in the HRA, at Emissions Estimates, "Operation of a concrete and HMA plant results in the generation of emissions. Specific sources of TACs at the proposed Dunn Facility include: the HMA dryer, asphalt oil storage tanks, cement silos, material transfer points, trucks used to transport material to and from the site, and off-road equipment to move material within



the site. In certain cases, sources of TACs will be equipment with pollution control devices, such as baghouses and bin vents.”<sup>52</sup> The HRA is included in Appendix “A” of this DEIR.

In addition to estimating emissions from the sources noted above, the Air Dispersion Modeling discussion in the HRA notes, “Air dispersion modeling was performed to estimate ground level concentrations (GLCs) at and beyond the property boundary of the Facility. USEPA’s AERMOD executable version 19191 via the BREEZE AERMOD software. Source release parameters were obtained from equipment specifications, published guidance documents, and facility personnel’s knowledge of the expected equipment. Source parameters, such as name, location, release height, etc. are provided in Table 1 and Table 2 [of the HRA included in Appendix “A” of this DEIR].

Truck and off-road equipment emissions were modeled as a series of volume sources located along the expected path of travel. Emissions for these sources were divided evenly between the series of volume sources. For construction emissions, the lot was modeled as an area source.”<sup>53</sup>

The HRA includes various input factors such as meteorological data, terrain data, model options and receptors as part of its analysis.<sup>54</sup> Using this information Alta Environmental is able to conduct a TAC exposure assessment estimate on receptors. As noted in the HRA, “Air dispersion modeling results (plot [.plt] files) were imported into CARB’s HARP software. HARP2 ADMRT software version 19121 was utilized to perform the dose-response assessment and calculate the potential cancer risk and non-cancer health impacts for the various receptors surrounding the proposed Dunn facility. The dose-response assessment and risk calculations were performed in accordance with OEHHA’s Risk Assessment Guidelines (OEHHA, 2015) and San Joaquin Valley Air Pollution Control District’s (SJVAPCD’s) Guidance for Air Dispersion Modeling (SJVAPCD, 2007).”<sup>55</sup> In summary, the exposure assessment includes identification of potential exposed populations, exposure pathways (for residents and off-site workers), and HARP exposure analysis methods and assumptions (for residents and off-site workers).<sup>56</sup>

As noted in the HRA, a dose response assessment was also conducted as, “According to OEHHA, dose-response assessment describes the quantitative relationship between the amount of exposure to a substance (the dose) and the incidence or occurrence of an adverse health impact (the response). Dose-response information for noncancer health effects is used to determine Reference Exposure Levels (RELs). Dose-response information for cancer risks are based on cancer potency factors (OEHHA, 2015). Chronic RELs, 8-hour Chronic RELs, Acute RELs, and cancer potency factors for each pollutant are listed in the OEHHA Guidelines and

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<sup>52</sup> “Health Risk Assessment Dunn’s Inc. 7763 Avenue 280 Visalia, CA 93277” (HRA) Page 3. Prepared by Alta Environmental and included in Appendix “A” of this DEIR.

<sup>53</sup> Ibid.

<sup>54</sup> Op. Cit. 3.

<sup>55</sup> Op. Cit. 5.

<sup>56</sup> Op. Cit.



built into HARP2. These values are periodically updated, and new versions of HARP2 incorporate the changes.”<sup>57</sup>

The HRA includes a risk characterization methodology by noting that “Risks are characterized using calculations and methodology contained in the OEHHA Guidelines and built into HARP2. Risk is calculated based on dose, dose-response values (RELs or cancer potency factors), and exposure duration and frequency. For this HRA, all risks were calculated using a Tier 1 approach using OEHHA default values.”<sup>58</sup> Carcinogenic Risks, Chronic Non-cancer Hazards, and Acute Non-cancer Hazards were then calculated resulting in the following results noted in the Risk Characterization Results in the HRA:

“Risk results are presented at three locations: The Point of Maximum Impact (PMI), the Maximum Exposed Individual Resident (MEIR), and the Maximum Exposed Individual Worker (MEIW). The PMI is located on the property boundary, and no receptors are expected to reside there for significant periods of time. Therefore, CEQA significance thresholds of 20 in one million for cancer and 1 for non-cancer HI are assessed at the MEIR and MEIW. The locations of the PMI, MEIR, and MEIW are provided in the following table and shown in Figure 3 [in the HRA].”<sup>59</sup>

**Tables 3.3-14 through 3.3-16** summarize the potential cancer risk at the PMI, MEIR, and MEIW:

<b>Table 3.3-14</b>			
<b>Construction Cancer Risk Results<sup>60</sup></b>			
<b>Receptor</b>	<b>UTM X (m)</b>	<b>UTM Y (m)</b>	<b>Cancer Risk</b>
PMI	284,731.4	4,019,450.1	1.0 in one million <sup>1</sup>
MEIR	284,928.6	4,019,640.9	5.0 in one million
MEIW	285,001.6	4,019,627.6	0.6 in one million
<i>1 The cancer risk at the PMI presented above assumes the worker receptor exposure scenario because the PMI is located on the facility fenceline where residential receptors do not exist.</i>			

<b>Table 3.3-15</b>			
<b>Operational Cancer Risk Results<sup>61</sup></b>			
<b>Receptor</b>	<b>UTM X (m)</b>	<b>UTM Y (m)</b>	<b>Cancer Risk</b>
PMI	284,731.4	4,019,450.1	3.7 in one million <sup>1</sup>
MEIR	284,928.6	4,019,640.9	8.7 in one million
MEIW	285,001.6	4,019,627.6	0.6 in one million
<i>1 The cancer risk at the PMI presented above assumes the worker receptor exposure scenario because the PMI is located on the facility fenceline where residential receptors do not exist.</i>			

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<sup>57</sup> Op. Cit. 6.

<sup>58</sup> Op. Cit. 7.

<sup>59</sup> Op. Cit. 8.

<sup>60</sup> Op. Cit. 9.

<sup>61</sup> Op. Cit.



<b>Table 3.3-16 Total Cancer Risk Results<sup>62</sup></b>			
<b>Receptor</b>	<b>UTM X (m)</b>	<b>UTM Y (m)</b>	<b>Cancer Risk</b>
PMI	284,731.4	4,019,450.1	9.4 in one million <sup>1</sup>
MEIR	284,928.6	4,019,640.9	13.7 in one million
MEIW	285,001.6	4,019,627.6	1.3 in one million <sup>1</sup>
<i><sup>1</sup> Total cancer risk at the PMI and MEIW include the WAF of 2.0.</i>			

As noted in the HRA, these result conclude that, “Diesel particulate matter (DPM) is the primary cancer risk driver.”<sup>63</sup>

**Tables 3.3-17 and 3.3-18** summarize the potential non-cancer chronic HI at the PMI, MEIR, and MEIW:

<b>Table 3.3-17 Construction Non-cancer Chronic Health Index<sup>64</sup></b>				
<b>Receptor</b>	<b>UTM X (m)</b>	<b>UTM Y (m)</b>	<b>Non-Cancer Chronic HI</b>	<b>Target Organ</b>
PMI	284,731.4	4,019,450.1	7.6E-02 <sup>1</sup>	RESP
MEIR	284,928.6	4,019,640.9	5.6E-03	RESP
MEIW	285,001.6	4,019,627.6	4.3E-03	RESP
<i><sup>1</sup> The cancer risk at the PMI presented above assumes the worker receptor exposure scenario because the PMI is located on the facility fenceline where residential receptors do not exist.</i>				

<b>Table 3.7-10 Operational Non-cancer Acute Chronic Index<sup>65</sup></b>				
<b>Receptor</b>	<b>UTM X (m)</b>	<b>UTM Y (m)</b>	<b>Non-Cancer Chronic HI</b>	<b>Target Organ</b>
PMI	284,731.4	4,019,450.1	0.2 <sup>1</sup>	RESP
MEIR	284,928.6	4,019,640.9	0.06	RESP
MEIW	285,001.6	4,019,627.6	0.02	RESP
<i><sup>1</sup> The cancer risk at the PMI presented above assumes the worker receptor exposure scenario because the PMI is located on the facility fenceline where residential receptors do not exist.</i>				

As noted in the HRA, “Arsenic is the primary non-cancer chronic HI driver. The primary target organ for the non-cancer chronic HI is the respiratory system.”<sup>66</sup>

**Tables 3.3-19 and 3.3-20** summarize the potential non-cancer chronic HI at the PMI, MEIR, and MEIW:

<sup>62</sup> Op. Cit.

<sup>64</sup> Op. Cit.

<sup>65</sup> Op. Cit.

<sup>66</sup> Op. Cit.



**Table 3.3-19**  
**Construction Non-cancer Acute Health Index<sup>67</sup>**

Receptor	UTM X (m)	UTM Y (m)	Non-Cancer Acute HI	Target Organ
PMI	284,731.4	4,019,450.1	0	IMMUN
MEIR	284,928.6	4,019,640.9	0	IMMUN
MEIW	285,001.6	4,019,627.6	0	IMMUN

**Table 3.3-20**  
**Operational Non-cancer Acute Health Index<sup>68</sup>**

Receptor	UTM X (m)	UTM Y (m)	Non-Cancer Acute HI	Target Organ
PMI	284,731.4	4,019,450.1	0.3	IMMUN
MEIR	284,928.6	4,019,640.9	0.07	IMMUN
MEIW	285,001.6	4,019,627.6	0.07	IMMUN

As noted in the HRA, “Nickel is the primary non-cancer acute HI driver. The primary target organ system is the immune system.”<sup>69</sup>

Therefore, based on the summary analysis above, and in detail in the HRA, the Project does not pose a risk to nearby receptors, by concluding “The total cancer risk is 13.6 in one million which is below the significance threshold of 20 in one million, the total non-cancer chronic HI is below 1, and the total non-cancer acute is below 1 at both the MEIR and MEIW. Therefore, the potential risks from TACs are below SJVAPCD CEQA significance thresholds.”<sup>70</sup> As such, *Less Than Significant Project-specific Impacts* related to this Checklist Item will occur.

Although not specifically required by CEQA, the following discussions related to cleanup sites, valley fever and asbestos are included to satisfy requirements for full disclosure of potential Project-related impacts and are for information purposes only.

**Hazardous Waste Cleanup Sites:** The Project has the potential to temporarily expose nearby receptors to fugitive particulate (dust) emissions during the short-term construction phase and from ongoing operational activities such as unloading raw materials from trucks to stockpiles, transferring material from stockpiles to processing areas, windblown dust from on-site haul roads and the stockpiles themselves. As of November, 2019, there were no listings within the Project vicinity in the California Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site List.<sup>71</sup> A query performed on the DTSC *Envirostor* indicated that

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<sup>67</sup> Op. Cit.

<sup>68</sup> Op. Cit.

<sup>69</sup> Op. Cit.

<sup>70</sup> Op. Cit. 11

<sup>71</sup> DTSC, Hazardous Waste and Substance Site List. Accessed November 2019 at:

[https://www.envirostor.dtsc.ca.gov/public/search.asp?page=8&cmd=search&business\\_name=&main\\_street\\_name=&city=&zip=&county=&status=ACT%2CBKLG%2CCOM&branch=&site\\_type=CSITES%2COPEN%2CFUDS%2CCLOSE&npl=&funding=&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST&reporttype=CORTESE&federal\\_superfund=&state\\_response=&voluntary\\_cleanup=&school\\_cleanup=&operating=&post\\_closure=&non\\_operating=&corrective\\_action=&tiered\\_permit=&evaluation=&spec\\_prog=&national\\_priority\\_list=&senate=&congress=&assembly=&critical\\_pol=&business\\_type=&case\\_type=&searchtype=&hwmp\\_site\\_type=&cleanup\\_type=&ocie](https://www.envirostor.dtsc.ca.gov/public/search.asp?page=8&cmd=search&business_name=&main_street_name=&city=&zip=&county=&status=ACT%2CBKLG%2CCOM&branch=&site_type=CSITES%2COPEN%2CFUDS%2CCLOSE&npl=&funding=&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST&reporttype=CORTESE&federal_superfund=&state_response=&voluntary_cleanup=&school_cleanup=&operating=&post_closure=&non_operating=&corrective_action=&tiered_permit=&evaluation=&spec_prog=&national_priority_list=&senate=&congress=&assembly=&critical_pol=&business_type=&case_type=&searchtype=&hwmp_site_type=&cleanup_type=&ocie)



the nearest superfund, state response, voluntary cleanup, school cleanup or corrective actions are more than three (3) miles from the Project site.<sup>72</sup> A query of the State Water Resources Control Board (WRCB) *GeoTracker* Sites and Facilities mapping programs revealed two (2) permitted underground storage tank (UST) sites and one (1) cleanup program site with closed cases, and one (1) military cleanup site within three (3) miles of the Project site; however, none of these sites are within the immediate vicinity of the site.<sup>73</sup> A query performed on the U.S. Environmental Protection Agency (EPA) *Superfund Enterprise Management System* (SEMS) website found that there are no listed polluted sites within the Project vicinity.<sup>74</sup> Therefore, fugitive dust emissions resulting from earthmoving activities would not expose nearby receptors to substantial pollutant concentrations. ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

***Valley Fever:*** Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). According to the Centers for Disease Control (CDC), the San Joaquin Valley is considered an endemic area for valley fever.<sup>75</sup> “People can get Valley fever by breathing in the microscopic fungal spores from the air, although most people who breathe in the spores don’t get sick. Usually, people who get sick with Valley fever will get better on their own within weeks to months, but some people will need antifungal medication.”<sup>76</sup> Construction-related activities generate fugitive dust that could potentially contain *C. immitis* spores. The Project will be required to implement General Plan Policy AQ-4.2 (Dust Suppression Measures), which was specifically designed to address impacts from the generation of dust emitted into the air. The Project will be required to comply with Air District Regulation VIII (Fugitive PM10 Prohibitions) requirements, including submittal of construction notification and/or dust control plan(s), which minimize the generation of fugitive dust during construction- and operations-related activities. Therefore, implementation of General Plan policies and compliance with Air District rules and regulations would reduce the chance of exposure of nearby receptors to valley fever during construction- and operation-related activities. ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

***Naturally Occurring Asbestos:*** In areas containing naturally occurring asbestos, earthmoving construction-related activities, such as grading and trenching, could expose receptors to windblown asbestos. According to a United States Geological Soil Survey map of areas where naturally occurring asbestos in California are likely to occur, the Project is not located in an area known to contain naturally occurring asbestos.<sup>77</sup> The Project site and the immediate vicinity has been previously disturbed by agricultural operations and by residential

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[erp=&hwmp=False&permitted=&pc\\_permitted=&inspections=&complaints=&censustract=&cesdecile=&school\\_district=&orderby=county.](#)  
Accessed November 2019.

<sup>72</sup> DTSC. Envirostor. Sites and Facilities mapping website. Accessed November 2019 at: <https://www.envirostor.dtsc.ca.gov/public/map/>.

<sup>73</sup> WRCB. GeoTracker. Sites and Facilities mapping website. Accessed November 2019 at: <https://geotracker.waterboards.ca.gov/>. Accessed November 2019.

<sup>74</sup> EPA. SEMS Search. Accessed November 2019 at: <https://www.epa.gov/enviro/sems-search>.

<sup>75</sup> CDC. Accessed November 2019 at: <https://www.cdc.gov/fungal/diseases/coccidioidomycosis/maps.html>.

<sup>76</sup> CDC. Accessed November 2019 at: <https://www.cdc.gov/fungal/diseases/coccidioidomycosis/index.html>.

<sup>77</sup> USGS. *Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California*. Accessed May 2019 at: <http://pubs.usgs.gov/of/2011/1188/>.



development. The Project will be required to implement General Plan Policy AQ-4.2 (Dust Suppression Measures) to comply with Air District Regulation VIII (Fugitive PM10 Prohibitions) requirements, thereby reducing the chance of exposure to asbestos during construction-related activities. Therefore, ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. As previously discussed, the HRA included in Appendix “A” demonstrates that the Project will not result in significant health risks to nearby receptors. The Tulare County General Plan includes policies, which were specifically designed to engage responsible agencies in the CEQA process, to reduce air pollutant emissions through project design, require compliance with emission-reducing regulations, and to address potential impacts from siting incompatible uses in close proximity to each other. Applicable General Plan policies will be implemented for the Project. Compliance with applicable Air District rules and regulations would further reduce potential impacts from exposure to TAC and HAP emissions, as well as valley fever and asbestos. As such, the development of the proposed Project would not expose the public to substantial pollutant concentrations. Therefore, a ***Less Than Significant Cumulative Impact*** related to this Checklist Item will occur.

Mitigation: ***None Required.***

Conclusion: ***Less Than Significant Impact***

As noted earlier, the HRA included in “Appendix A” demonstrates that the proposed Project does not pose a risk to receptors. As such, the proposed Project would not expose the public to substantial pollutant concentrations. Therefore, ***Less Than Significant Project-specific and Cumulative Impacts*** related to this Checklist Item will occur.

**d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?)**

Project Impact Analysis: ***Less Than Significant Impact***

Potential odor sources associated with construction-related activities could originate from diesel exhaust from construction (set-up) of equipment, incoming and out-going diesel-fueled heavy-duty vehicles, and fumes from architectural coating (repainting of the existing residential-turned office building) and paving operations. However, construction-related odors and emissions from diesel-fueled heavy-duty vehicles, if perceptible, would dissipate as they mix with the surrounding air and would be of very limited duration. As such, objectionable odors during construction-related activities and emissions from diesel-fueled heavy-duty vehicles would not affect a substantial number of people.



The Project includes a HMA batch plant, RAP plant, and concrete batch plant. Potential odor sources associated with operation-related activities could originate from fumes from the asphalt batch plant, diesel exhaust from off-road haul equipment, and diesel exhaust from incoming and out-going diesel-fueled heavy-duty transport vehicles. As presented in **Table 8** [of the AQ-GHG memo], asphalt batch plants are considered to have potentially significant impacts on receptors located within one (1) mile. The site is located in a generally rural area surrounded by agricultural uses; the nearest residential receptors are located approximately 800 feet (0.15 mile) east of the Project site and the nearest school is located approximately three (3) miles east of the Project site. There are no other sensitive receptors such as schools, day-care centers, or hospitals nearby. During operation, the various processing plants and diesel-powered vehicles and equipment in use on-site would create localized odors. As it is expected that many of the truck delivery and shipments would take place during peak hours, these odors would be temporary and would not likely be noticeable for extended periods of time beyond the Project's site boundaries. Furthermore, the Project is subject to Air District permit requirements, including Rule 4102 (Nuisance). Because the sources of odors within the Project site will dissipate with distance and should not reach an objectionable level at the nearby residence the Project would not create or expose existing residents to objectionable odors.

As presented in Table 8 (in the AQ-GHG memo), the Air District has determined the common land use types that are known to produce odors in the San Joaquin Valley Air Basin including asphalt batch plants. The existing wastewater treatment facility (located approximately one mile north of the Project) and agricultural uses (dairies) in the vicinity of the Project could be sources of nuisance odors. All projects, with the exception of agricultural operations, are subject to Air District Rule 4102 (Nuisance). Therefore, odors from agriculture-related operations would not be subject to complaint reporting. There is potential for these agricultural operations to generate objectionable odors during certain atmospheric changes; however, these odors would be temporary and/or seasonal in nature. Furthermore, the Tulare County General Plan includes Policy AG-1.14 Right-to-Farm Noticing which requires new property owners to acknowledge and accept the inconveniences associated with normal farming activities. If future developments are proposed adjacent to active agricultural uses, future residents will be required to sign a "Right to Farm" notice. To ensure potential nuisance odor impacts are addressed, if proposed developments were to result in sensitive receptors being located closer than the recommended distances to any odor generator identified in Table 8 (in the AQ-GHG memo), a more detailed analysis, is recommended. The detailed analysis would involve contacting the Air District's Compliance Division for information regarding odor complaints. Implementation of the applicable General Plan policies and compliance with applicable Air District rules and regulations specifically designed to address air quality and odor impacts, would reduce potential odor impacts. As such, the Project would not place, create, or expose a substantial number of people to objectionable odors. Therefore, ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

Cumulative Impact Analysis:

***Less Than Significant Impact***



The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. As noted earlier, the Project contains an asphalt batch plant that has the potential to create objectionable odors. However, the Project will be subject to Air District Rule 4102 (Nuisance) and applicable Air District rules, regulations, and permit requirements. Also, Tulare County General Plan Policy AG-1.14 Right-to-Farm Noticing will be implemented. As such, the Project will not expose a substantial number of people to objectionable odors. Therefore, ***Less Than Significant Cumulate Impacts*** related to this Checklist Item will occur.

Mitigation:

***None Required.***

Conclusion:

***Less Than Significant Impact***

The Project's asphalt batch plant has the potential as a source of nuisance odors. Existing agricultural sources (e.g., dairies) present permanent odors in the Project vicinity that could affect nearby receptors (i.e., rural residences). Implementation of applicable Air District rules, regulations, and permit requirements and General Plan Policy (i.e., AG-1.14 Right-to-Farm) would reduce objectionable odors. As such, the Project will not expose a substantial number of people to objectionable odors. Therefore, Less Than Significant Project-specific and Cumulative Impacts related to this Checklist Item will occur.



## DEFINITIONS

**Ambient Air Quality Standards**, These standards measure outdoor air quality. They identify the maximum acceptable average concentrations of air pollutants during a specified period of time. These standards have been adopted at a State and Federal level.

**Best Available Control Measures (BACM)**, A set of programs that identify and implement potentially best available control measures affecting local air quality issues.

**Best Available Control Technologies (BACT)**, The most stringent emission limitation or control technique of the following: 1.) Achieved in practice for such category and class of source 2.) Contained in any State Implementation Plan approved by the Environmental Protection Agency for such category and class of source. A specific limitation or control technique shall not apply if the owner of the proposed emissions unit demonstrates to the satisfaction of the APCO that such a limitation or control technique is not presently achievable 3.) Contained in an applicable federal New Source Performance Standard or 4.) Any other emission limitation or control technique, including process and equipment changes of basic or control equipment, found by the APCO to be cost effective and technologically feasible for such class or category of sources or for a specific source.

**Carbon Monoxide (CO)**, Carbon monoxide is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels and is emitted directly into the air (unlike ozone).

**Hydrogen Sulfide (H<sub>2</sub>S)**, Hydrogen sulfide is a highly toxic flammable gas. Because it is heavier than air, it tends to accumulate at the bottom of poorly ventilated spaces.

**Lead (Pb)**, Lead is the only substance which is currently listed as both a criteria air pollutant and a toxic air contaminant. Smelters and battery plants are the major sources of the pollutant "lead" in the air. The highest concentrations of lead are found in the vicinity of nonferrous smelters and other stationary sources of lead emissions. The EPA's health-based national air quality standard for lead is 1.5 micrograms per cubic meter (µg/m<sub>3</sub>) [measured as a quarterly average].

**Metropolitan Planning Organization (MPO)**, Tulare County Association of Governments (TCAG) is the MPO for Tulare County. MPO's are responsible for developing reasonably available control measures (RACM) and best available control measures (BACM) for use in air quality attainment plans and for addressing Transportation Conformity requirements of the federal Clean Air Act.

**Mobile Source**, A mobile emission source is a moving object, such as on-road and off-road vehicles, boats, airplanes, lawn equipment, and small utility engines.

**Nitrogen Oxides (Oxides of Nitrogen, NO<sub>x</sub>)**, NO<sub>x</sub> are compounds of nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>). NO<sub>x</sub> are primarily created from the combustion process and are a major contributor to ozone smog and acid rain formation. NO<sub>x</sub> also forms ammonium nitrate particulate



in chemical reactions that occur when NO<sub>x</sub> forms nitric acid and combines with ammonia. Ammonium nitrate particulate is an important contributor to PM<sub>10</sub> and PM<sub>2.5</sub>.

**Ozone (O<sub>3</sub>),** Ozone is a pungent, colorless, toxic gas created in the atmosphere rather than emitted directly into the air. O<sub>3</sub> is produced in complex atmospheric reactions involving oxides of nitrogen, reactive organic gases (ROG), and ultraviolet energy from the sun in a photochemical reaction. Motor vehicles are the major sources of O<sub>3</sub> precursors.

**Ozone Precursors,** Chemicals such as non-methane hydrocarbons, also referred to as ROG, and oxides of nitrogen, occurring either naturally or as a result of human activities, which contribute to the formation of ozone, which is a major component of smog.

**Photochemical,** Some air pollutants are direct emissions, such as the CO produced by an automobile's engine. Other pollutants, primarily O<sub>3</sub>, are formed when two or more chemicals react (using energy from the sun) in the atmosphere to form a new chemical. This is a photochemical reaction.

**Particulate Matter 2.5 Micrometers (PM<sub>2.5</sub>),** The federal government has recently added standards for smaller dust particulates. PM<sub>2.5</sub> refers to dust/particulates/aerosols that are 2.5 microns in diameter or smaller. Particles of this size can be inhaled more deeply in the lungs and the chemical compositions of some particles are toxic and have serious health impacts.

**Particulate Matter 10 Micrometers (PM<sub>10</sub>),** Dust and other particulates exhibit a range of particle sizes. Federal and State air quality regulations reflect the fact that smaller particles are easier to inhale and can be more damaging to health. PM<sub>10</sub> refers to dust/particulates that are 10 microns in diameter or smaller. The fraction of PM between PM<sub>2.5</sub> and PM<sub>10</sub> is comprised primarily of fugitive dust. The particles between PM<sub>10</sub> and PM<sub>2.5</sub> are primarily combustion products and secondary particles formed by chemical reactions in the atmosphere.

**Reactive Organic Gas (ROG),** A photo chemically reactive gas, composed of non-methane hydrocarbons that may contribute to the formation of smog. Also sometimes referred to as Volatile Organic Compounds (VOCs).

**Reasonable Available Control Measures (RACM),** A broadly defined term referring to technologies and other measures that can be used to control pollution. They include Reasonably Available Control Technology and other measures. In the case of PM<sub>10</sub>, RACM refers to approaches for controlling small or dispersed source categories such as road dust, woodstoves, and open burning. Regional Transportation Planning Agencies are required to implement RACM for transportation sources as part of the federal ozone attainment plan process in partnership with the Air District.

**Reasonable Available Control Technologies (RACT),** Devices, systems, process modifications, or other apparatuses or techniques that are reasonably available, taking into account: the necessity of imposing such controls in order to attain and maintain a national ambient air quality standard;



the social, environmental, and economic impact of such controls; and alternative means of providing for attainment and maintenance of such a standard.

**San Joaquin Valley Air Basin (SJVAB)**, An air basin is a geographic area that exhibits similar meteorological and geographic conditions. California is divided into 15 air basins to assist with the statewide regional management of air quality issues. The SJVAB extends in the Central Valley from San Joaquin County in the north to the valley portion of Kern County in the south.

**San Joaquin Valley Air Pollution Control District (Air District)**, The Air District is the regulatory agency responsible for developing air quality plans, monitoring air quality, developing air quality regulations, and permitting programs on stationary/industrial sources and agriculture and reporting air quality data for the SJVAB. The Air District also regulates indirect sources and has limited authority over transportation sources through the implementation of transportation control measures (TCM).

**Sensitive Receptors**, Sensitive receptors are defined as land uses that typically accommodate sensitive population groups such as long-term health care facilities, rehabilitation centers, retirement homes, convalescent homes, residences, schools, childcare centers, and playgrounds.

**Sensitive Population Groups**, Sensitive population groups are a subset of the general population that is at a greater risk than the general population to the effects of air pollution. These groups include the elderly, infants and children, and individuals with respiratory problems, such as asthma.

**Sulfur Dioxide (SO<sub>2</sub>)**, Sulfur dioxide belongs to the family of SO<sub>x</sub>. These gases are formed when fuel containing sulfur (mainly coal and oil) is burned, and during metal smelting and other industrial processes.

**Stationary Source**, A stationary emission source is a non-mobile source, such as a power plant, refinery, or manufacturing facility.

**Sulfates**, Sulfates occur as microscopic particles (aerosols) resulting from fossil fuel and biomass combustion. SO<sub>x</sub> can form sulfuric acid in the atmosphere that in the presence of ammonia forms ammonium sulfate particulates, a small but important component of PM<sub>10</sub> and PM<sub>2.5</sub>. Sulfates increase the acidity of the atmosphere and form acid rain.

**Transportation Conformity**, A federal requirement for transportation plans and projects to demonstrate that they will not result in emissions that exceed attainment plan emission budgets or exceed air quality standards.

**Transportation Control Measures (TCMs)**, Any measure that is identified for the purposes of reducing emissions or concentrations of air pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions.



**Transportation Management Agencies**, Transportation Management Agencies are private, non-profit, member-controlled organizations that provide transportation services in a particular area, such as a commercial district, mall, medical center, or industrial park. Transportation Management Agencies are appropriate for any geographic area where there are multiple employers or businesses clustered together that can benefit from cooperative transportation management or parking brokerage services. Regional and local governments, business associations, and individual businesses can all help establish Transportation Management Agencies.

**Transportation Management Associations (TMAs)**, Groups of employers uniting together to work collectively to manage transportation demand in a particular area.

**Tulare County Association of Governments (TCAG)**, TCAG is the Transportation Planning Agency (TPA) for Tulare County. TCAG is also designated as a Metropolitan Planning Organization (MPO), the agency responsible for preparing long range Regional Transportation Plans and demonstrating Transportation Conformity with air quality plans.

**Wood-burning Devices**, Wood-burning devices are designed to burn “solid fuels” such as cordwood, pellet fuel, manufactured logs, or any other non-gaseous or non-liquid fuels.

## ACRONYMS

ARB	California Air Resources Board
BACM	Best Available Control Measures
BACT	Best Available Control Technologies
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CARB	California Air Resources Board
CO	Carbon Monoxide
EPA	Environmental Protection Agency
GAMAQI	Guide for Assessing and Mitigating Air Quality Impacts
HI	Hazard Index
H <sub>2</sub> S	Hydrogen Sulfide
NAAQS	National Ambient Air Quality Standards
NO <sub>2</sub>	Nitrogen Dioxide
MPO	Metropolitan Planning Organization
O <sub>3</sub>	Ozone
Pb	Lead
PM <sub>2.5</sub>	Particulate Matter 2.5 Micrometers
PM <sub>10</sub>	Particulate Matter 10 Micrometers
RACM	Reasonable Available Control Measures
RACT	Reasonable Available Control Technologies
ROG	Reactive Organic Gases
SIP	State Implementation Plan
SO <sub>2</sub>	Sulfur Dioxide



AIR DISTRICT	San Joaquin Valley Air Pollution Control District
SJVAPCD	San Joaquin Valley Air Pollution Control District
SJVAB	San Joaquin Valley Air Basin
TAC	Toxic Air Contaminants
TCAG	Tulare County Association of Governments
TCM	Transportation Control Measures
VOC	Volatile Organic Compound
WWTP	Waste Water Treatment Plant

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# Biological Resources

## Chapter 3.4

### SUMMARY OF FINDINGS

The proposed Project will result in ***Less Than Significant Impacts with Mitigation*** to Biological Resources. A detailed review of potential impacts is provided in the following analysis. A Biological Evaluation (“*Biological Evaluation (BE) Visalia Concrete/Asphalt Batch Plant Project, Tulare County, California.*”) conducted by consultants Live Oak Associates, Inc. is included in Appendix “B” of this document which is used as the basis for determining this Project will result in less than significant impacts.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

Whenever possible, public agencies are required to avoid or minimize environmental impacts by implementing practical alternatives or mitigation measures. According to Section 15382 of the CEQA Guidelines, a significant effect on the environment means a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.”<sup>1</sup>

The California Environmental Quality Act (CEQA; California Public Resources Code §§ 21000-21177) requires that State agencies, local governments, and special districts evaluate and disclose impacts from “projects” in the State. CEQA Guidelines Section 15380 clearly indicates that species of special concern (SSCs) should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity.<sup>2</sup>

CEQA Guidelines Sections 15063 and 15065 address how an impact is identified as significant. These sections are particularly relevant to SSCs. Project-level impacts on listed rare, threatened, or endangered species are generally considered significant, and therefore require lead agencies to prepare an Environmental Impact Report to fully analyze and evaluate the impacts. In determining to assign “impact significance” to populations of non-listed species, factors which are usually considered include population-level effects, proportion of the species’ range affected by a project, regional effects, and impacts to habitat features.<sup>3</sup>

This section of the Draft Environmental Impact Report (DEIR) for the Project meets CEQA requirements by addressing potential impacts to biological resources on the proposed Project site, which is located in a portion of the San Joaquin Valley in Tulare County. The “Environmental Setting” section provides a description of biological resources in the region, with special emphasis

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<sup>1</sup>. CEQA Guidelines Section 15382.

<sup>2</sup> California Department of Fish and Wildlife. Wildlife: Nongame: Species of Special Concern. “How are SSCs addressed under the California Environmental Quality Act” Accessed July 2019 at: <http://www.dfg.ca.gov/wildlife/nongame/ssc/>.

<sup>3</sup> Ibid.



on the proposed Project site and vicinity. The “Regulatory Setting” provides a description of applicable State and local regulatory policies. A description of the potential impacts of the proposed project is also provided and includes the identification of feasible mitigation to avoid or lessen the impacts.

### Thresholds of Significance

The geographical area may be either statewide or nationwide, depending on the sensitive status of the species. Standards for listing as federal endangered species are determined by the Federal Endangered Species Act, administered by U.S. Department of Fish and Wildlife. Standards for listing of California special status species (Endangered, Threatened, Candidate Endangered, Candidate Threatened, and Sensitive Species) are administered by the California Department of Fish and Wildlife (DFW). These requirements are described in further detail in the “Regulatory” section of this document.

## **ENVIRONMENTAL SETTING**

As indicated in the biological evaluation (BE) included in Appendix “B” of this EIR, “The project site is within the lower Kaweah River Delta, whose distributary drainages historically drained into the Tulare Lake. These waterways were historically characterized by extensive riparian, wetland, and aquatic ecosystems that supported large populations of diverse native plants and animals. Agricultural diversions and channel realignments have eliminated much of the original riparian habitat of this river system, and aquatic and wetland habitats have been greatly degraded from agricultural runoff and controlled flows. Tulare Lake has long been drained and converted to farmland and urban uses.”<sup>4</sup>

Native plant and animal species once abundant in the region have become locally extirpated or have experienced large reductions in their populations due to conversion of upland, riparian, and aquatic habitats to agricultural and urban uses. Remaining native habitats are particularly valuable to native wildlife species including special status species that still persist in the region.”<sup>5</sup>

“The project site consists of a wheat field and a fenced area with crushed asphalt substrate containing a large metal-sided barn, an office building, and a raised water tank. The project site has experienced agriculture-related disturbance since at least 1969. The project site is flat with a mean elevation of 287 feet National Geodetic Vertical Datum (NGVD). The project site contains two soil mapping units: Akers-Akers, saline-Sodic, complex, 0 to 2 percent slopes; and Nord fine sandy loam, 0 to 2 percent slopes. Neither of these soils is considered hydric, meaning they don’t have the propensity to support seasonal pools that could provide habitat for sensitive plant or animal species. Furthermore, onsite soils have been significantly disturbed by decades of agricultural practices and other human uses. As a result, the soils of the project site have no particular significance to biological resources potentially occurring on the site.”<sup>6</sup>

### **Land Uses/Biotic Habitats**

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<sup>4</sup> “Biological Evaluation (BE) Visalia Concrete/Asphalt Batch Plant Project, Tulare County, California.” Page 6. Prepared by Live Oak Associates (LOA), Inc. September 20, 2018. Included in Appendix “B” of the DEIR.

<sup>5</sup> Ibid.

<sup>6</sup> Op. Cit. 7.



“Two land uses/biotic habitats have been identified on the project site, comprising agricultural field and ruderal. A list of the vascular plant species observed within the project site and the terrestrial vertebrates using, or potentially using, the site is provided in Appendices B and C [of the BE], respectively. Selected photographs of the project site are presented in Appendix D [of the BE]. Land uses/biotic habitats of the project site are displayed in Figure 3 [of the BE].

### **Agricultural Field**

Much of the site is an agricultural field most recently planted to wheat. Analysis of historic aerial imagery suggests it is periodically also planted to corn. Aside from the remnant wheat stocks, this field was characterized at the time of the field survey by herbaceous weedy vegetation such as barnyard barley (*Hordeum murinum* ssp. *leporinum*), prostrate knotweed (*Polygonum aviculare*), asthmaweed (*Erigeron bonariensis*), prickly lettuce (*Lactuca serriola*), shepherds purse (*Capsella bursa-pastoris*), lambsquarters (*Chenopodium album*), pigweed amaranth (*Amaranthus albus*), barnyard grass (*Echinochloa crus-galli*), rescue grass (*Bromus catharticus*), and Bermuda grass (*Cynodon dactylon*).<sup>7</sup>

“Regular cultivation of the field limits its value to native wildlife; however, some wildlife species undoubtedly utilize the field. Amphibian use of this habitat is expected to be absent due to the absence of breeding habitat on and adjacent to the site. Reptiles that could occur in the field include the common side-blotched lizard (*Uta stansburiana*), Pacific gopher snake (*Pituophis catenifer catenifer*), and common kingsnake (*Lampropeltis getula*).

Agricultural fields also provide foraging habitat for a number of avian species. Common resident species likely to forage in the agricultural field of the project site include mourning doves (*Zenaidura macroura*) (observed), American crows (*Corvus brachyrhynchos*), Brewer’s blackbirds (*Euphagus cyanocephalus*), brown-headed cowbirds (*Molothrus ater*), and European starlings (*Sturnus vulgaris*). Summer migrants that would be common in the agricultural field of the project site include the western kingbird (*Tyrannus verticalis*) (observed), while common winter migrants would include the savannah sparrow (*Passerella sandwichensis*) and American pipit (*Anthus rubescens*).

A few mammal species may also occur within the onsite field. Small mammals such as deer mice (*Peromyscus maniculatus*) and California voles (*Microtus californicus*) would occur in fluctuating numbers depending on the season and crop. At the time of the field survey, burrowing mammal activity was sparse, with the only evidence of mammal burrows in the form of scattered dirt mounds created by burrowing Botta’s pocket gophers (*Thomomys bottae*). Various species of bat may also forage over the field for flying insects.

The presence of reptiles, birds, and small mammals is likely to attract foraging raptors and mammalian predators. Raptors such as red-tailed hawks (*Buteo jamaicensis*), Swainson’s hawks (*Buteo swainsoni*), and American kestrels (*Falco sparverius*) may forage over the field. Mammalian predators occurring in the agricultural field of the project site would most likely be

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<sup>7</sup> Op. Cit.



limited to raccoons (*Procyon lotor*), striped skunks (*Mephitis mephitis*), coyotes (*Canis latrans*), and red fox (*Vulpes vulpes*), as these species are relatively tolerant of human disturbance.”<sup>8</sup>

### **Ruderal/Developed**

“The project site contained a ruderal/developed area surrounded by a chain-link fence. This portion of the site has been heavily influenced by human activities and contained a ground cover that appeared to be crushed asphalt, a large metal-sided barn, office building, stockpiles of broken concrete, and raised water tank. This ruderal/developed area contained little to no vegetation. Where vegetation was present, it consisted of weedy forbs such as Jimsonweed (*Datura wrightii*) and pigweed amaranth. A single medium sized mulberry tree (*Morus alba*) was located in this area next to the office building.

The wildlife habitat value of this portion of the project site is very low and is expected to be utilized primarily by non-native animal species accustomed to human environments. Amphibians are expected to be absent due to the lack of water and vegetation. Common reptiles such as the western fence lizard (*Sceloporus occidentalis*) and Pacific gopher snake could potentially use ruderal habitats of the project area. Rock pigeons (*Columba livia*) (observed), mourning doves, European starlings (*Sturnus vulgaris*), northern mockingbirds (*Mimus polyglottos*), house finches (*Carpodacus mexicanus*), and house sparrows (*Passer domesticus*) (observed) could be expected to occur in this ruderal/developed area, as could the disturbance-tolerant killdeer (*Charadrius vociferus*), which often nests on gravel or bare ground.

Small mammals are expected to be limited to house mice (*Mus musculus*), deer mice, and brown rat (*Rattus norvegicus*). Larger mammals are expected absent from this area due to the surrounding fence and low habitat value.”<sup>9</sup>

“The California Natural Diversity Data Base (CDFW 2018) was queried for special status species occurrences in the nine USGS 7.5 minute quadrangles containing and immediately surrounding the project site (*Goshen, Visalia, Tulare, Paige, Waukena, Remnoy, Burris Park, Traver, and Monson*). These species, and their potential to occur on the project site, are listed in Table 1 [Table 3.4-1 of this DEIR] on the following pages. Sources of information for this table included *California’s Wildlife, Volumes I, II, and III* (Zeiner et. al 1988-1990), *California Natural Diversity Data Base* (CDFW 2018), *Endangered and Threatened Wildlife and Plants* (USFWS 2018), *The Recovery Plan for Upland Species of the San Joaquin Valley, California* (USFWS 1998), *The Jepson Manual: Vascular Plants of California, second edition* (Baldwin et al 2012), and *The California Native Plant Society’s Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2018), Calflora.org, and eBird.org.

Special status species occurrences within 5 kilometers of the project site are depicted in Figure 4 [in the BE] and San Joaquin kit fox (*Vulpes macrotis mutica*) occurrences and Swainson’s hawk (*Buteo swainsoni*) nesting locations within 10 miles are presented in Figure 5 [in the BE].”<sup>10</sup>

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<sup>8</sup> Op. Cit. 9.

<sup>9</sup> Op. Cit. 10.

<sup>10</sup> Op. Cit. 10 and 11.



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The Biological Evaluation identified 29 potential special status species, and did not identify any native plant communities, which might occur onsite or in the proposed Project vicinity. This information was used to develop figures and tables contained in the BE as included in Appendix “B” of this DEIR. Table 3.4-1 summarizes the findings by species, status, habitat, and occurrence on the Project site:

There are two habitat conservation plans that apply in Tulare County: 1) Recovery Plan for Upland Species of the San Joaquin Valley, and 2) the Kern Water Bank Habitat Conservation Plan. However, both Plans areas are outside of the proposed Project area or vicinity. The blunt-nose leopard lizard is the only plant or animal species identified in the Recovery Plan for Upland Species of the San Joaquin Valley that is also within the range identified in the CNDDDB; however, the BE (in Table 1 of the BE, Table 3.4-1 of this DEIR) indicates that suitable habitat for this species is absent from the Project site and surrounding lands.

<b>TABLE 3.4-1 LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY</b>			
<b>Species</b>	<b>Status</b>	<b>Habitat</b>	<b>Occurrence on the Project Site</b>
<b>Plants (adapted from CDFW 2018 and CNPS 2018)</b>			
California Jewel-flower ( <i>Caulanthus californicus</i> )	FE, CE, CNPS 1B	Occurs in chenopod scrub, pinyon and juniper woodland, and sandy valley and foothill grassland; blooms February–May; elevation 250-3,300 ft.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been modified by intensive human use.
Hoover’s Spurge ( <i>Euphorbia hooveri</i> )	FT, CNPS 1B	Occurs in vernal pools of California’s Central Valley; blooms July–September; elevation 80-820 ft.	<b>Absent.</b> Suitable habitat in the form of vernal pools does not exist on the project site.
San Joaquin Valley Orcutt Grass ( <i>Orcuttia inaequalis</i> )	FT, CE, CNPS 1B	Occurs in vernal pools of the Central Valley; requires deep pools with prolonged periods of inundation; blooms April–September; elevation 100-2,480 ft.	<b>Absent.</b> Suitable habitat in the form of vernal pools does not exist on the project site.
San Joaquin Adobe Sunburst ( <i>Pseudobahia peirsonii</i> )	FT, CE, CNPS 1B	Occurs in grasslands of the Sierra Nevada foothills in heavy clay soils of the Porterville and Centerville series. Blooms March–April; elevation 300-2,625 ft.	<b>Absent.</b> Porterville and Centerville soils are absent from the project site, and on-site habitats are otherwise unsuitable for this species.
<b>CNPS-Listed Plants</b>			
Heartscale ( <i>Atriplex cordulata</i> var. <i>cordulata</i> )	CNPS 1B	Occurs on saline or alkaline soils in chenopod scrub, meadows, seeps, and grasslands; blooms April–October; elevations below 1,230 ft.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been modified by intensive human use.
Earlimart Orache ( <i>Atriplex cordulata</i> var. <i>erecticaulis</i> )	CNPS 1B	Occurs in valley and foothill grasslands between 130 and 330 ft. in elevation; blooms August–September.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been modified by intensive human use.
Brittlescale ( <i>Atriplex depressa</i> )	CNPS 1B	Occurs in chenopod scrub, valley and foothill grassland, and wetland habitats; blooms April–October; elevations below 1,050 ft.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been modified by intensive human use.
Lesser Saltscale ( <i>Atriplex minuscula</i> )	CNPS 1B	Occurs in cismontane woodland and valley and foothill grasslands of the San Joaquin Valley; alkaline/sandy soils; blooms May–October; elevation 50-660 ft.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. Any suitable habitat that may have



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TABLE 3.4-1 LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY			
Species	Status	Habitat	Occurrence on the Project Site
			once been present has been modified by intensive human use.
Subtle Orache ( <i>Atriplex subtilis</i> )	CNPS 1B	Occurs in valley and foothill grasslands of the San Joaquin Valley; blooms August-October; elevation 130-330 ft.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been modified by intensive human use.
Recurved Larkspur ( <i>Delphinium recurvatum</i> )	CNPS 1B	Occurs in cismontane woodland and valley and foothill grasslands; blooms March-June; alkaline soils; elevations below 2,500 ft.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been modified by intensive human use.
Spiny-Sepaled Button Celery ( <i>Eryngium spinosepalum</i> )	CNPS 1B	Occurs in vernal pools and valley and foothill grasslands of the San Joaquin Valley and the Tulare Basin; blooms April-May; elevation 330-840 ft.	<b>Absent.</b> Suitable habitat in the form of vernal pool wetlands or wetland swales are absent from the project site.
California Satintail ( <i>Imperata brevifolia</i> )	CNPS 2B	This perennial grass is found in scrubland and chaparral habitats where water is available. Blooms September-May.	<b>Absent.</b> Suitable habitat for this species is absent from the project site.
California Alkali-Grass ( <i>Puccinellia simplex</i> )	CNPS 1B	Occurs in saline flats and mineral springs less than 900 m. in elevation in the Central Valley, San Francisco Bay area and western Mojave Desert.	<b>Absent.</b> Suitable habitat in the form of saline flats and mineral springs is absent from the project site.
Sanford's Arrowhead ( <i>Sagittaria sanfordii</i> )	CNPS 1B	Occurs in freshwater emergent marsh habitat in drainage ditches and canals of California's Central Valley. Blooms May to October.	<b>Absent.</b> Suitable habitat for this species is not present on the project site.
ANIMALS (adapted from CDFW 2018 and USFWS 2018)			
Vernal Pool Fairy Shrimp ( <i>Branchinecta lynchi</i> )	FT	Occurs in vernal pools, clear to tea-colored water in grass or mud-bottomed swales, and basalt depression pools.	<b>Absent.</b> Suitable habitat in the form of vernal pools is absent from the project site.
Vernal Pool Tadpole Shrimp ( <i>Lepidurus packardii</i> )	FE	Primarily found in vernal pools, but may use other seasonal wetlands in mesic valley and foothill grasslands	<b>Absent.</b> Suitable habitat in the form of vernal pools is absent from the project site.
California Tiger Salamander ( <i>Ambystoma californiense</i> )	FT, CT	Found primarily in annual grasslands; requires vernal pools for breeding and rodent burrows for aestivation. Although most CTS aestivate within 0.4 mile of their breeding pond, outliers may aestivate up to 1.3 miles away (Orloff 2011).	<b>Absent.</b> Vernal pool or seasonal wetland habitat suitable for breeding by the CTS does not exist on or within a 1.3-mile radius of the project site. The site is situated within agricultural lands generally not suitable for CTS. Furthermore, the site is located outside the known range of the species, with the closest known breeding occurrence of CTS approximately 16 miles northeast of the project site.
Blunt-Nosed Leopard Lizard ( <i>Gambelia sila</i> )	FE, CE, CFP	Occurs in semiarid grasslands, alkali flats, and washes. Avoids densely vegetated areas. Inhabits the San Joaquin Valley and adjacent valleys and foothills north to Merced County.	<b>Absent.</b> Suitable habitat for this species is absent from the project site and surrounding lands.
Swainson's Hawk ( <i>Buteo swainsoni</i> )	CT	This breeding-season migrant to California nests in stands with few trees in riparian areas and juniper-sage flats, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations.	<b>Possible.</b> The wheat and corn crops grown on the onsite agricultural field provide unsuitable (corn) to seasonably suitable (wheat) foraging habitat for Swainson's hawks (Estep 2009). A single medium sized onsite mulberry tree offers extremely marginal nesting



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TABLE 3.4-1 LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY			
Species	Status	Habitat	Occurrence on the Project Site
			habitat. Twenty-two Swainson's hawk nesting occurrences have been documented within 10-mile radius of the project site (CDFW 2018).
Western Yellow-Billed Cuckoo ( <i>Coccyzus americanus occidentalis</i> )	FT, CE	Occurs in valley foothill and desert riparian habitats in scattered locations in California. Requires extensive gallery riparian forests for nesting.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. The only known occurrence in the project vicinity was mapped generally to Visalia in 1919 (CDFW 2018).
Tricolored Blackbird ( <i>Agelaius tricolor</i> )	CC	Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in grassland and cropland habitats.	<b>Possible.</b> Tricolored blackbirds could occasionally forage in the agricultural field of the project site. This species could conceivably nest in the agricultural field when wheat is grown. The closest known occurrence of a breeding colony was documented in a wheat field approximately 10 miles southwest of the project site in 2000 (CDFW 2018).
San Joaquin Kit Fox ( <i>Vulpes macrotis mutica</i> )	FE, CT	Found in desert alkali scrub and annual grasslands; may forage in adjacent agricultural habitats. Use underground dens for thermoregulation, cover, and reproduction. Dens are either self-dug or modified rodent burrows.	<b>Unlikely.</b> Habitats on the project site are of little to no value to kit fox due to regular human disturbance, the lack of available prey, and the site's isolation from natural habitats and known kit fox populations. There are 11 documented kit fox occurrences within a 10-mile radius of the project site, with all but two from the early to mid-1970s (see Figure 5). In fact, there have been no documented kit fox occurrences in the project vicinity for the last 15 years. The project site is situated approximately 60 miles away from the nearest kit fox core population on natural lands of western Kern County (Smith et al. 2006).
Western Spadefoot ( <i>Spea hammondi</i> )	CSC	Mainly occurs in grasslands of San Joaquin Valley. Vernal pools or other temporary wetlands are required for breeding. Aestivates in underground refugia such as rodent burrows, typically within 1,200 ft. of aquatic habitat.	<b>Absent.</b> Suitable breeding habitat for western spadefoot does not exist on the project site or surrounding lands.
Western Pond Turtle ( <i>Emys marmorata</i> )	CSC	Occurs in open slow-moving water or ponds with rocks and logs for basking. Typically requires perennial waters. Nesting occurs in open areas, on a variety of soil types, and up to ¼ mile away from water. This species is almost extinct in the southern San Joaquin Valley.	<b>Absent.</b> Suitable aquatic habitat for western pond turtle does not exist on the project site or surrounding lands.
Northern California Legless Lizard ( <i>Anniella pulchra</i> )	CSC	Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.	<b>Absent.</b> The project site provides unsuitable habitat for this species due to ongoing agricultural use of the site.
Burrowing Owl ( <i>Athene cunicularia</i> )	CSC	Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	<b>Absent.</b> Burrowing owls are considered absent from the project site for the following reasons.



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TABLE 3.4-1			
LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY			
Species	Status	Habitat	Occurrence on the Project Site
		Dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows.	Documented burrowing owl occurrences are absent from the project vicinity (CDFW 2018; ebird 2018); no sign of burrowing owl occupation was observed on the project site; when crops are standing the site is rendered unsuitable for burrowing owls; and suitably sized burrows were absent from the project site.
Loggerhead Shrike ( <i>Lanius ludovicianus</i> )	CSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low herbaceous cover. Can often be found in cropland.	<b>Possible.</b> Shrikes could nest in the single onsite tree and could forage in the agricultural field on the site.
Western Mastiff Bat ( <i>Eumops perotis californicus</i> )	CSC	Found in open, arid to semi-arid habitats. Roosts most commonly in crevices in cliff faces, but may also use high buildings, trees, and tunnels.	<b>Possible.</b> Potential foraging habitat occurs in the airspace above the site. Roosting habitat is absent from the site. Furthermore, this species is not known to roost in the southern San Joaquin Valley.
American Badger ( <i>Taxidea taxus</i> )	CSC	Uncommon resident statewide; most abundant in drier open stages of most shrub, forest, and herbaceous habitats.	<b>Absent.</b> The project site provides unsuitable habitat for this species due to ongoing agricultural use of the site.
OCCURRENCE TERMINOLOGY			
<b>Present:</b> Species observed on the site at time of field surveys or during recent past.			
<b>Likely:</b> Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.			
<b>Possible:</b> Species not observed on the site, but it could occur there from time to time.			
<b>Unlikely:</b> Species not observed on the site, and would not be expected to occur there except, perhaps, as a transient.			
<b>Absent:</b> Species not observed on the site, and precluded from occurring there because habitat requirements not met.			
STATUS CODES			
FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
FPE	Federally Endangered (Proposed)	CFP	California Fully Protected
FPT	Federally Threatened (Proposed)	CSC	California Species of Special Concern
FC	Federal Candidate	CC	California Candidate
CNPS California Native Plant Society Listing			
1A - Plants Presumed Extinct in California			
1B - Plants Rare, Threatened, or Endangered in California and elsewhere an			
2 - Plants Rare, Threatened, or Endangered in California, but more common elsewhere			

## REGULATORY SETTING

Applicable Federal, State, and local regulations specific to biological resources are described below. The following environmental regulatory settings were summarized, in part, from information contained in the Tulare County General Plan 2010 Background Report.



## ***Federal Agencies & Regulations***

### ***Federal Endangered Species Act***

“In California, imperiled plants and animals may be afforded special legal protections under the California Endangered Species Act (CESA) and/or Federal Endangered Species Act (FESA). Species may be listed as “threatened” or “endangered” under one or both Acts, and/or as “rare” under CESA. Under both Acts, “endangered” means a species is in danger of extinction throughout all or a significant portion of its range, and “threatened” means a species is likely to become endangered within the foreseeable future. Under CESA, “rare” means a species may become endangered if their present environment worsens. Both Acts prohibit “take” of listed species, defined under CESA as “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill” (California Fish and Game Code, Section 86), and more broadly defined under FESA to include “harm” (16 USC, Section 1532(19), 50 CFR, Section 17.3).”<sup>11</sup>

“The U.S. Fish and Wildlife Service (USFWS) administers the federal Endangered Species Act (16 USC Section 153 et seq.) and thereby has jurisdiction over federally listed threatened, endangered, and proposed species. Projects that may result in a “take” of a listed species or critical habitat must consult with the USFWS. “Take” is broadly defined as harassment, harm, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collection; any attempt to engage in such conduct; or destruction of habitat that prevents an endangered species from recovering (16 USC 1532, 50 CFR 17.3). Federal agencies that propose, fund, or must issue a permit for a project that may affect a listed species or critical habitat are required to consult with the USFWS under Section 7 of the Federal Endangered Species Act. If it is determined that a federally listed species or critical habitat may be adversely affected by the federal action, the USFWS will issue a “Biological Opinion” to the federal agency that describes minimization and avoidance measures that must be implemented as part of the federal action. Projects that do not have a federal nexus must apply for a take permit under Section 10 of the Act. Section 10 of the act requires that the project applicant prepare a habitat conservation plan as part of the permit application (16 USC 1539).”<sup>12</sup>

“Under Section 4 of the Federal Endangered Species Act, a species can be removed, or delisted, from the list of threatened and endangered species. Delisting is a formal action made by the USFWS and is the result of a determined successful recovery of a species. This action requires posts in the federal registry and a public comment period before a final determination is made by the USFWS.”<sup>13</sup>

### **Habitat Conservation Plans**

“Habitat Conservation Plans (HCPs) are required for a non-federal entity that has requested a take permit of a federal listed species or critical habitat under Section 10 of the Endangered Species Act. HCPs are designed to offset harmful effects of a proposed project on federally listed species. These plans are utilized to achieve long-term biological and regulatory goals. Implementation of HCPs allows development and projects to occur while providing conservation measures that

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<sup>11</sup> Op. Cit. 23.

<sup>12</sup> Tulare County General Plan 2030 Update Recirculated DEIR. Page 3.11-2.

<sup>13</sup> Ibid.



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protect federally listed species or their critical habitat and offset the incidental take of a proposed project. HCPs substantially reduce the burden of the Endangered Species Act on small landowners by providing efficient mechanisms for compliance with the ESA, thereby distributing the economic and logistic effects of compliance. A broad range of landowner activities can be legally protected under these plans.<sup>14</sup> There are generally two types of HCPs, project specific HCPs which typically protect a few species and have a short duration and multi-species HCPs which typically cover the development of a larger area and have a longer duration.”<sup>15</sup>

Migratory Bird Treaty and Bald and Golden Eagle Protection Act

“The Migratory Bird Treaty Act (MBTA, 16 USC Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668) protect certain species of birds from direct “take”. The MBTA protects migrant bird species from take by setting hunting limits and seasons and protecting occupied nests and eggs. The Bald and Golden Eagle Protection Act (16 USC Sections 668-668d) prohibits the take or commerce of any part of Bald and Golden Eagles. The USFWS administers both acts, and reviews federal agency actions that may affect species protected by the acts.”<sup>16</sup>

Clean Water Act - Section 404

“Wetlands and other waters of the U.S. are subject to the jurisdiction of the U.S. Army Corp of Engineers (USACE) and U.S. Environmental Protection Agency (EPA) under Section 404 of the Clean Water Act (33 U.S.C. 1251 et seq., 1972). Together, the EPA and the USACE determine whether they have jurisdiction over the non-navigable tributaries that are not relatively permanent based on a fact-specific analysis to determine if there is a significant nexus. These non-navigable tributaries include wetlands adjacent to non-navigable tributaries that are not relatively permanent and wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.”<sup>17</sup>

“Wet areas that are not regulated by this Act do not have a hydrologic link to other waters of the U.S., either through surface or subsurface flow and include ditches that drain uplands, swales or other erosional features. The USACE has the authority to issue a permit for any discharge, fill, or dredge of wetlands on a case-by-case basis, or by a general permit. General permits are handled through a Nationwide Permit (NWP) process. These permits allow specific activities that generally create minimal environmental effects. Projects that qualify under the NWP program must fulfill several general and specific conditions under each applicable NWP. If a proposed project cannot meet the conditions of each applicable NWP, an individual permit would likely be required from the USACE.”<sup>18</sup>

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<sup>14</sup> Tulare County General Plan 2030 Update Background Report. Pages 9-6 and 9-7.

<sup>15</sup> Tulare County General Plan 2030 Update Recirculated DEIR. Page 3.11-2.

<sup>16</sup> Ibid. Page 3.11-3.

<sup>17</sup> Op. Cit. Page 3.11-1.

<sup>18</sup> Tulare County General Plan 2030 Update DEIR. Pages 3.11-1 to 3.11.2.



### ***State Agencies & Regulations***

#### California Department of Fish and Wildlife (formerly Dept. of Fish and Game)

The California Department of Fish and Wildlife (DFW) regulates the modification of the bed, bank, or channel of a waterway under Sections 1601-1607 of the California Fish and Game Code. Also included are modifications that divert, obstruct, or change the natural flow of a waterway. Any party who proposes an activity that may modify a feature regulated by the Fish and Game Code must notify DFW before project construction. DFW will then decide whether to enter into a Streambed Alteration Agreement with the project applicant either under Section 1601 (for public entities) or Section 1603 (for private entities) of the Fish and Game Code.

#### California Endangered Species Act

DFW administers the California Endangered Species Act of 1984 (Fish and Game Code Section 2080), which regulates the listing and “take” of endangered and threatened State-listed species. A “take” may be permitted by California Department of Fish and Game through implementing a management agreement. “Take” is defined by the California Endangered Species Act as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill” a State-listed species (Fish and Game Code Sec. 86). Under State laws, DFW is empowered to review projects for their potential impacts to State-listed species and their habitats.

The DFW maintains lists for Candidate-Endangered Species (SCE) and Candidate-Threatened Species (SCT). California candidate species are afforded the same level of protection as State-listed species. California also designates Species of Special Concern (CSC) that are species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. These species do not have the same legal protection as listed species, but may be added to official lists in the future. The CSC list is intended by DFW as a management tool for consideration in future land use decisions (Fish and Game Code Section 2080).<sup>19</sup>

All State lead agencies must consult with DFW under the California Endangered Species Act when a proposed project may affect State-listed species. DFW would determine if a project under review would jeopardize or result in taking of a State-listed species, or destroy or adversely modify its essential habitat, also known as a “jeopardy finding” (Fish and Wildlife Code Sec. 2090). For projects where DFW has made a jeopardy finding, DFW must specify reasonable and prudent alternatives to the proposed project to the State lead agency (Fish and Wildlife Code Sec. 2090 et seq.).<sup>20</sup>

#### Natural Communities Conservation Planning Act

The Natural Communities Conservation Planning Act allows a process for developing natural community conservation plans (NCCPs) under DFW direction. NCCPs allow for regional protection of wildlife diversity, while allowing compatible development. DFW may permit takings

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<sup>19</sup> Tulare County General Plan 2030 Update, Background Report. Pages 9-7 and 9-8.

<sup>20</sup> Ibid.



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of State-listed species whose conservation and management are provided in a NCCP, once a NCCP is prepared (Fish and Game Code Secs. 2800 et seq.).<sup>21</sup>

### Federally and State-Protected Lands

Ownership of California's wildlands is divided primarily between federal, state, and private entities. State-owned land is managed under the leadership of the Departments of Fish and Wildlife (DFW), Parks and Recreation, and Forestry and Fire Protection (CDF). Tulare County has protected lands in the form of wildlife refuges, national parks, and other lands that have large limitations on appropriate land uses. Some areas are created to protect special status species and their ecosystems.<sup>22</sup>

### California Wetlands Conservation Policy

The California Wetlands Conservation Policy's goal is to establish a policy framework and strategy that will ensure no overall net loss and achieve a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values in California. Additionally, the policy aims to reduce procedural complexity in the administration of State and federal wetlands conservation programs and to encourage partnerships with a primary focus on landowner incentive programs and cooperative planning efforts. These objectives are achieved through three policy means: statewide policy initiatives, three geographically based regional strategies in which wetland programs can be implemented, and creation of interagency wetlands task force to direct and coordinate administration and implementation of the policy. Leading agencies include the Resources Agency and the California Environmental Protection Agency (Cal/EPA) in cooperation with Business, Transportation and Housing Agency, Department of Food and Agriculture, Trade and Commerce Agency, Governor's Office of Planning and Research, Department of Fish and Wildlife, Department of Water Resources, and the State Water Resources Control Board.<sup>23</sup>

### Birds of Prey

Birds of Prey are protected under the California Fish and Wildlife Code Section 3503.5, which states:

*"It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."*

This includes any construction disturbance which could lead to nest abandonment, which is considered a "taking" by the DFW.

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<sup>21</sup> Op. Cit.

<sup>22</sup> Op. Cit. Page 9-9.

<sup>23</sup> Tulare County General Plan 2030 Update, *Background Report*. Page 9-9.



### Special Status Species

“Several species of plants and animals within the state of California have low populations and/or limited distributions. Such species may be considered “rare” and are vulnerable to extirpation as the state’s human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, state and federal laws have provided the California Department of Fish and Wildlife (CDFW) (previously called the California Department of Fish and Game – CDFG) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as “threatened” or “endangered” under state and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as “species of special concern” by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened, or endangered. Collectively, these plants and animals are referred to as “special status species.”<sup>24</sup>

### CEQA and Oak Woodland Protection

CEQA Statute Section 21083.4, “Counties; Conversion of Oak Woodlands; Mitigation Alternatives,” requires that counties determine whether a development will have potential impacts on oak woodlands:

21083.4(a): “For purposes of this section, “oak” means a native tree species in the genus *Quercus*, not designated as Group A or Group B commercial species pursuant to regulations adopted by the State Board of Forestry and Fire Protection pursuant to Section 4526, and that is 5 inches or more in diameter at breast height.”

21083.4(b): “...a county shall determine whether a project within its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment. If a county determines that there may be a significant effect to oak woodlands, the county shall require one or more of the [listed] oak woodlands mitigation alternatives...”

### ***Local Policy & Regulations***

#### Tulare County General Plan Policies

The Tulare County General Plan has a number of policies that apply to projects within the County of Tulare. General Plan policies that relate to the proposed Project are listed below.

**ERM-1.1 Protection of Rare and Endangered Species** - The County shall ensure the protection of environmentally sensitive wildlife and plant life, including those species designated as rare, threatened, and/or endangered by State and/or Federal government, through compatible land use development.

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<sup>24</sup> “Biological Evaluation (BE) Visalia Concrete/Asphalt Batch Plant Project, Tulare County, California.” Pages 10 and 11. Prepared by Live Oak Associates (LOA), Inc. September 20, 2018. Included in Appendix “B” of this DEIR.



**ERM-1.2 Development in Environmentally Sensitive Areas** - The County shall limit or modify proposed development within areas that contain sensitive habitat for special status species and direct development into less significant habitat areas. Development in natural habitats shall be controlled so as to minimize erosion and maximize beneficial vegetative growth.

**ERM-1.15 Minimize Lighting Impacts** - The County shall ensure that lighting associated with new development or facilities (including street lighting, recreational facilities, and parking) shall be designed to prevent artificial lighting from illuminating adjacent natural areas at a level greater than one foot candle above ambient conditions.

**ERM-1.16 Cooperate with Wildlife Agencies** - The County shall cooperate with State and federal wildlife agencies to address linkages between habitat areas.

## IMPACT EVALUATION

### Would the project:

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

Project Impact Analysis:                      *Less Than Significant Impact With Mitigation*

As noted earlier, the Project site consists of a wheat field and a fenced area with crushed asphalt substrate containing a large metal-sided barn, an office building, and a raised water tank. The Project site has experienced agriculture-related disturbance since at least 1969. The Project would result in conversion of the 20-acre site which contains an agricultural field and ruderal/developed area to an industrial use in the form of a small concrete/asphalt batch plant.<sup>25</sup>

According to the CNDDDB search and as described in the Biological Evaluation (BE) prepared by consultants Live Oak Associates (LOA) (included in Appendix “B”), 14 Special Status plant species, 15 Special Status animal species, and no special habitats are known to occur in the general proposed Project vicinity. Field surveys were conducted on July 17, 2018 an LOA ecologist by LOA in July 2018 to determine if the Project site contained biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law. The survey results provided by LOA indicate that, “Two land uses/biotic habitats have been identified within the project site, comprising agricultural field and ruderal/developed. Both of these land use/biotic habitats have experienced some level of human disturbance or modification. The project site sits within a region of Tulare County dominated by agricultural uses.

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<sup>25</sup> Ibid. 26.



The project site does not provide suitable habitat for locally occurring special status plant species; hence, the proposed project will not impact special status plants. Project impacts will also be less than significant for wildlife movement corridors, natural communities of special concern or other sensitive habitats, downstream water quality, federally regulated waters, and many special status animal species that are absent or unlikely to occur within the project site or that may regularly or occasionally forage within the project site but breed elsewhere. The project does not appear to conflict with the Tulare County General Plan or other local policies.”<sup>26</sup>

“The Swainson’s hawk, loggerhead shrike, tricolored blackbird, and other migratory birds may nest onsite and/or on adjacent lands such that they have the potential to suffer construction related mortality, which would be considered a significant impact of the project. Avoidance of active bird nests identified during preconstruction surveys will ensure that potential impacts to these avian species are reduced to a less than significant level.”<sup>27</sup>

*“Ecology of the species.* The Swainson’s hawk is a large, long-winged, broad-tailed hawk with a high degree of mate and territorial fidelity. It is a breeding season migrant to California, with hawks arriving at their nesting sites in March or April. The young typically hatch between May and June and fledge 4 to 6 weeks later. By October, most birds have left for wintering grounds in South America.

In the Central Valley, Swainson’s hawks typically nest in large trees along riparian systems, but may also nest in oak groves or lone, mature trees in agricultural fields or along roadsides. Nest sites are typically located adjacent to suitable open habitat for hunting small prey. In the Central Valley, California voles account for about 45% of non-insect prey taken by the Swainson’s hawk, followed by mourning doves, ring-necked pheasants (*Phasianus colchicus*), western meadowlarks (*Sturnella neglecta*), and other birds (32%), and pocket gophers, deer mice, and other small mammals (20%) (Estep 1989). Insects comprise a large proportion of individual.

The suitability of a particular site for Swainson’s hawk foraging is based on a combination of prey abundance and prey accessibility; the latter is determined by the vegetation characteristics of a site (Bechard 1982, Estep 1989). Swainson’s hawks preferentially forage in habitats with low-profile vegetation, such as grasslands or pastures, fallow or disced fields, alfalfa and other hay crops, and certain grain and row crops, primarily during or immediately after harvest (Estep 1989, Estep and Dinsdale 2012). Loss of nesting and foraging habitat has greatly reduced the breeding range and abundance of this species in California, leading to its listing as threatened under the California Endangered Species Act in 1983 (CDFG 1994).

*Potential to occur onsite.* The project site contains 17 acres of agricultural field that has been planted to wheat and/or corn, depending on the year, for the last 10 years. Aerial photos of the project vicinity over the last 10 years indicate that surrounding lands follow the same crop regime. At the time of the July 2018 field survey, the onsite ag field consisted of wheat stocks

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<sup>26</sup> Op. Cit.

<sup>27</sup> Op. Cit.



that were harvested earlier in the summer. Surrounding lands consisted of corn. It is surmised that corn was not planted on the project site in 2018 in anticipation of the proposed land-use change. In years of corn production on the site, the site would provide unsuitable Swainson's hawk foraging habitat due to low prey abundance and inaccessibility of prey items during the period of time when Swainson's hawks are present in the region. In years of both wheat and corn production, the site would provide low suitability foraging habitat, with a small window of foraging opportunity post-wheat harvest and pre-corn planting. During years of wheat production, the site would offer seasonably suitable foraging habitat post-harvest (Estep 2009). The ruderal/developed area of the site is considered unsuitable for foraging due to the crushed asphalt substrate, stockpiles of broken concrete, and onsite buildings; which provide unsuitable habitat for potential prey items. This ruderal/developed area contains a single medium-sized white mulberry tree that provides extremely marginal nesting habitat. Foliage was sparse and no stick nests were observed during the field investigation. Nesting habitat is absent from immediately surrounding lands. However, Swainson's hawk nesting activity is abundant in the project vicinity, with the nearest nesting occurrence 0.7 miles southwest of the project site (see Figure 5). Furthermore, a driving inspection of lands in the near vicinity of the project site by the investigator found Swainson's hawks present in the project vicinity, primarily near alfalfa fields.

It is expected that Swainson's hawks occasionally utilize 17 acres of the site for foraging for a few months of some years depending on crop selection.”<sup>28</sup>

“The project site contains suitable nesting habitat for a few avian species protected by state laws. The onsite tree could also be used by a few bird species including the loggerhead shrike (*Lanius ludovicianus*), a California Species of Special Concern. The tricolored blackbird (*Agelaius tricolor*), a State Endangered Candidate species, could potentially nest in the agricultural field if wheat is grown as it was prior to the field investigation of the site. The Swainson's hawk could nest in a few native oak trees approximately 0.42 to 0.5 miles north of the project site. The onsite mulberry tree and non-native residential trees approximately 0.15 miles east along Avenue 280 are considered extremely unlikely to support nesting Swainson's hawks. Even the most disturbed habitats of the project site could be used by the killdeer, mourning dove, and other disturbance-tolerant birds. If birds were to be nesting on or adjacent to the project site at the time of construction, project-related activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of raptors or result in mortality of individual birds constitute a violation of state laws (see Sections 3.2.3 and 3.2.4) and would be considered a significant impact under CEQA.

Given the many square miles of agricultural land in the project vicinity that provides similar to higher quality avian nesting habitat, a loss of a small amount of potential nesting habitat for the loggerhead shrike and tricolored blackbird is considered less than significant under CEQA.”<sup>29</sup>

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<sup>28</sup> Op. Cit. Page 18-20.

<sup>29</sup> Op. Cit. 27.



Based on this analysis, implementation of **Mitigation Measures 3.4-1** through **3.4-3** (shown as Mitigations 3.3-a, 3.3-b, and 3.3-c in the BE included in Appendix “B”). would reduce potential Project-specific impacts related to this Checklist Item to ***Less Than Significant With Mitigation***.

Cumulative Impact Analysis

***Less Than Significant Impact With Mitigation***

The geographic area of this cumulative analysis is the San Joaquin Valley. While the study area is limited to Tulare County, sensitive species with similar habitat requirements may exist in other portions of the San Joaquin Valley, and therefore cumulative impacts would extend beyond Tulare County’s political boundaries.

The proposed Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. As the proposed Project does not result in significant loss of habitat or direct impact to these special status species, ***Less Than Significant Cumulative Impacts with Mitigation*** will occur. Consultants LOA recommended the following Mitigation Measures as contained in the Biological Evaluation (See Appendix “B” of this DEIR). For easier reading, the Mitigation Measures contained in the Biological Evaluation have been sequenced differently and numbered rather than using the format contained in the Biological Evaluation.

Mitigation Measure(s):

**Nesting Swainson’s Hawks, Tricolored Blackbird, Loggerhead Shrike, and Other Migratory Birds.**

In order to minimize construction disturbance to nesting birds, the applicant will implement the following measure(s), as necessary, prior to project construction:<sup>30</sup>

- 3.4-1 (Avoidance).** In order to avoid impacts to nesting birds, construction will occur, where possible, outside the nesting season, or between September 16 and January 31.<sup>31</sup>
- 3.4-2 (Pre-construction Surveys).** If construction must occur during the nesting season (February 1-September 15), a qualified biologist will conduct pre-construction surveys for active bird nests within 10 days of the onset of project initiation. Nest surveys will include all accessible areas on the project site and within 250 feet of the project site for tricolored blackbird, loggerhead shrike, and other migratory birds; within 500 feet for non-listed raptors; and 0.5 miles for Swainson’s hawks. Inaccessible areas will be scanned with binoculars or spotting scope, as appropriate. If no active nests are found within the survey area, no further mitigation is required.<sup>32</sup>

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<sup>30</sup> Op. Cit.

<sup>31</sup> Op. Cit.

<sup>32</sup> Op. Cit.



- 3.4-3 (Establish Buffers).** If active nests are found within the survey areas a qualified biologist will establish appropriate no-disturbance buffers based on species tolerance of human disturbance, baseline levels of disturbance, and barriers that may separate the nest from construction disturbance. These buffers will remain in place until the breeding season has ended or until the qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.<sup>33</sup>

Compliance with the above **Mitigation Measures 3.4-1** through **3.4-3** would reduce impacts to nesting raptors and migratory birds, including the Swainson's hawk, tricolored blackbird, and loggerhead shrike, to a less than significant level under CEQA, and ensure compliance with state laws.<sup>34</sup>

Conclusion: *Less Than Significant Impact With Mitigation*

As noted earlier, *Less Than Significant Project-specific and Cumulative Impacts With Mitigation* related to this Checklist Item will occur.

- b) **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game [Wildlife] or U.S. Fish and Wildlife Service?**

Project Impact Analysis: *No Impact*

As concluded in the BE (included in Appendix "B") in the discussion regarding potential impacts to riparian or other sensitive habits, "No riparian or other sensitive habitats occur on or immediately adjacent to the project site. Because these habitats are absent, they will not be impacted by project activities."<sup>35</sup> There are no sensitive riparian or natural habitats in the immediate proposed Project area and as such, *No Project-specific Impacts* related to this Checklist Item will occur.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is the San Joaquin Valley. While the study area is limited to Tulare County, sensitive species with similar habitat requirements may exist in other portions of the San Joaquin Valley.

The proposed Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. As the proposed Project does not result in loss of riparian or otherwise sensitive habitat, *No Cumulative Impacts* will occur.

Mitigation: *None Required.*

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<sup>33</sup> Op. Cit.

<sup>34</sup> Op. Cit.

<sup>35</sup> Op. Cit. 31.



Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item will occur.

- c) **Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

Project Impact Analysis: *No Impact*

“The project site contains no hydrologic features. As such, Waters of the U.S. are absent from the project site. The project will have no impact on Waters of the U.S.”<sup>36</sup>. The BE also evaluated degradation of water quality in seasonal drainages, stock ponds, and downstream waters determining that, “Extensive grading often leaves the soils of construction zones barren of vegetation and, therefore, vulnerable to erosion. Eroded soil is generally carried as sediment in surface runoff to be deposited in natural creek beds, canals, and adjacent wetlands. Furthermore, runoff is often polluted with grease, oil, pesticide and herbicide residues, heavy metals, etc. The project site is situated within a flat landscape and no waterways are present within or immediately adjacent to the project site. Therefore, downstream water quality would not be impacted by project activities.”<sup>37</sup> As such, the proposed Project would not result in an adverse effect on federally protected wetlands. *No Project-specific Impacts* related to this Checklist Item will occur.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is the San Joaquin Valley. While the study area is limited to Tulare County, sensitive species with similar habitat requirements may exist in other portions of the San Joaquin Valley.

The proposed Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. As the proposed Project does not result in the loss of federally protected wetlands, *No Cumulative Impacts* will occur.

Mitigation: *None Required.*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item will occur.

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<sup>36</sup> Op. Cit. 30

<sup>37</sup> Op. Cit.



- d) **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

Project Impact Analysis

***Less Than Significant Impact***

As indicated in the BE, “While some common wildlife species, primarily birds, are expected to regularly use and/or pass through the site, the project site does not contain any features that would function as a fish or wildlife movement corridor or be considered a nursery site. Therefore, the project will not substantially impede the movement of native fish or wildlife species, nor impede their use of a nursery site. Project impacts to wildlife movements, movement corridors, and nursery sites are considered less than significant under CEQA.”<sup>38</sup> Therefore, the proposed Project will result in a ***Less Than Significant Impact*** on regional wildlife movements.

Cumulative Impact Analysis:

***Less Than Significant Impact***

The geographic area of this cumulative analysis is the San Joaquin Valley. While the study area is limited to Tulare County, corridors for fish and wildlife species with similar habitat requirements may exist in other portions of the San Joaquin Valley.

The proposed Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. As the proposed Project does not impact federally protected wetlands, ***Less Than Significant Cumulative Impacts*** will occur.

Mitigation:

***None Required.***

Conclusion:

***Less Than Significant Impacts***

As noted earlier, ***Less Than Significant Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.

- e) **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

Project Impact Analysis:

***No Impact***

The proposed Project will not conflict with any policies or ordinances protecting biological resources. ***No Project-specific Impacts*** related to this Checklist Item will occur.

Cumulative Impact Analysis:

***No Impact***

The geographic area of this cumulative analysis is Tulare County.

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<sup>38</sup> Op. Cit.



There will be no impacts to policies or ordinances relating to biological resources, and therefore there will be *No Cumulative Impacts* related to this Checklist Item.

Mitigation: *None Required.*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item will occur.

**f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

Project Impact Analysis: *No Impact*

As noted in the BE, “The proposed project appears to be consistent with the goals and policies of the Tulare County General Plan. No known Habitat Conservation Plans or Natural Community Conservation Plans are in effect for the area. Therefore, the project would be carried out in compliance with local policies and ordinances.”<sup>39</sup> As such, *No Project-specific Impacts* related to this Checklist Item will occur.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is California. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

There are *No Impacts* related to habitat conservation plans, and therefore there are *No Cumulative Impacts* that will conflict with local policies or ordinances.

Mitigation: *None Required.*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item will occur.

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<sup>39</sup> Op, Cit. 31.



## REFERENCES

CEQA Guidelines Section 15382

California Department of Fish and Wildlife, 2019, Natural Diversity Data Base, Special Animal and Special Plants.

California Department of Fish and Wildlife. Wildlife: Nongame: Species of Special Concern. <http://www.dfg.ca.gov/wildlife/nongame/ssc/>. Accessed March 2019.

California Native Plant Society, Rare Plant Program. 2014. Inventory of Rare and Endangered Plants (online edition, V8-02). <http://www.rareplants.cnps.org/>. Accessed March, 2019.

“Biological Evaluation Visalia Concrete/Asphalt Batch Plant Project, Tulare County, California” Live Oak Associates, Inc., September 20, 2018. Included in Appendix “B” of this DEIR.

Tulare County General Plan 2030 Update Background Report. Accessed June 2019 at: <http://generalplan.co.tulare.ca.us/documents.html> then locate “Background Report February 2010”, select “February 2010 Background Report”.

Tulare County General Plan 2030 Update Recirculated DEIR. Accessed in June 2019 at: <http://generalplan.co.tulare.ca.us/documents.html> then locate “Recirculated Draft Environmental Impact Report February 2010 Draft”, select “Recirculated DEIR”.



# Cultural Resources

## Chapter 3.5

### SUMMARY OF FINDINGS

The proposed Project will result in **No Impact** to Cultural Resources. The “*Phase 1 Survey, 7763 Avenue 280, Visalia, Tulare County California*” report was prepared by ASM Affiliates, Inc., which is included in Appendix “C”. This information, and additional analysis in the resource discussion item, are used as the basis for determining that this Project will result in no impacts.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

Several CEQA statutes and guidelines address requirements for cultural resources, including historic and archaeological resources. If a proposed Project may cause a substantial adverse effect on the significance of a historical resource, then the project may be considered to have a significant effect on the environment, and the impacts must be evaluated under CEQA.<sup>1</sup> The definition of “historical resources” is included in Section 15064.5 of CEQA Guidelines, and includes both historical and archaeological resources. “Substantial adverse change” is defined as “physical demolition, destruction, relocation, or alteration of the resource...”

Section 15064.5 also provides guidelines when there is a probable likelihood of Native American remains existing in the project site. Provisions for the accidental discovery of historical or unique archaeological resources accidentally discovered during construction include a recommendation for evaluation by a qualified archaeologist, with follow up as necessary.

Public Resources Code Section 5097.5 prohibits excavation or removal of any “vertebrate paleontological site...or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands.”

This section of the Draft Environmental Impact Report (DEIR) for the proposed Project meets CEQA requirements by addressing potential impacts to cultural resources on the proposed Project site. The “Environmental Setting” section provides a description of cultural resources in the region, with special emphasis on the proposed Project site and vicinity. The “Regulatory Setting” section provides a description of applicable State and local regulatory policies. Results of cultural resources field study and reports from CHRIS are included. A description of potential impacts is provided, along with feasible mitigation measures to reduce the impacts to less than significant.

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<sup>1</sup> CEQA Section 21084.1.



### CEQA Thresholds of Significance

Under CEQA Guidelines Section 15064.5. (b) “A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.”

- (1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
- (2) The significance of an historical resource is materially impaired when a project:
  - (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
  - (B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
  - (C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.
- (3) Generally, a project that follows the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource.
- (4) A lead agency shall identify potentially feasible measures to mitigate significant adverse changes in the significance of an historical resource. The lead agency shall ensure that any adopted measures to mitigate or avoid significant adverse changes are fully enforceable through permit conditions, agreements, or other measures.
- (5) When a project will affect state-owned historical resources, as described in Public Resources Code Section 5024, and the lead agency is a state agency, the lead agency shall consult with the State Historic Preservation Officer as provided in Public



Resources Code Section 5024.5. Consultation should be coordinated in a timely fashion with the preparation of environmental documents.”<sup>2</sup>

## ENVIRONMENTAL SETTING

“Tulare County lies within a culturally rich province of the San Joaquin Valley. Studies of the prehistory of the area show inhabitants of the San Joaquin Valley maintained fairly dense populations situated along the banks of major waterways, wetlands, and streams. Tulare County was inhabited by aboriginal California Native American groups consisting of the Southern Valley Yokuts, Foothill Yokuts, Monache, and Tubatulabal. Of the main groups inhabiting the Tulare County area, the Southern Valley Yokuts occupied the largest territory.”<sup>3</sup>

“California’s coast was initially explored by Spanish (and a few Russian) military expeditions during the late 1500s. However, European settlement did not occur until the arrival into southern California of land-based expeditions originating from Spanish Mexico starting in the 1760s. Early settlement in the Tulare County area focused on ranching. In 1872, the Southern Pacific Railroad entered Tulare County, connecting the San Joaquin Valley with markets in the north and east. About the same time, valley settlers constructed a series of water conveyance systems (canals, dams, and ditches) across the valley. With ample water supplies and the assurance of rail transport for commodities such as grain, row crops, and fruit, a number of farming colonies soon appeared throughout the region.”<sup>4</sup>

“The colonies grew to become cities such as Tulare, Visalia, Porterville, and Hanford. Visalia, the County seat, became the service, processing, and distribution center for the growing number of farms, dairies, and cattle ranches. By 1900, Tulare County boasted a population of about 18,000. New transportation links such as SR 99 (completed during the 1950s), affordable housing, light industry, and agricultural commerce brought steady growth to the valley. The California Department of Finance estimated the 2007 Tulare County population to be 430,167”<sup>5</sup>

### Existing Cultural and Historic Resources

“Tulare County’s known and recorded cultural resources were identified through historical records, such as those found in the National Register of Historic Places, the Historic American Building Survey/Historic American Engineering Record (HABS/HAER), the California Register of Historic Resources, California Historical Landmarks, and the Tulare County Historical Society list of historic resources.”<sup>6</sup>

Due to the sensitivity of many prehistoric, ethnohistoric, and historic archaeological sites, locations of these resources are not available to the general public. The Information Center at California State University Bakersfield houses records associated with reported cultural

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<sup>2</sup> CEQA Guidelines, Section 15064.5 (b).

<sup>3</sup> Tulare County General Plan 2030 Update. Page 8-5.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid. Page 8-6.

<sup>6</sup> Tulare County General Plan 2030 Update, *Background Report*, Page 9-56.



resources surveys, including the records pertinent to sensitive sites, such as burial grounds, important village sites, and other buried historical resources protected under state and federal laws.

“An intensive Phase I cultural resources survey was conducted for a proposed 20-acres batch plant, located at 7763 Avenue 280 (APN 119-010-039), Visalia, Tulare County, California. ASM Affiliates, Inc., conducted this study, with David S. Whitley, Ph.D., RPA, serving as principal investigator. The study was undertaken to assist with compliance with the California Environmental Quality Act (CEQA).

A records search of site files and maps was conducted at the Southern San Joaquin Valley Archaeological Information Center, California State University, Bakersfield. A Sacred Lands File Request was also submitted to the Native American Heritage Commission (NAHC). Letters and follow-up phone calls were made to tribal organizations on the NAHC contact list, to determine whether tribal cultural resources were known in or near the Project. These investigations determined that the Project area had not been previously surveyed and that no sites or tribal cultural resources were known to exist within or near it.

The Phase I survey fieldwork was conducted in August 2018 with parallel transects spaced at 15-meter intervals walked along the approximately 20-acre study area. No archaeological resources of any kind were discovered within the project area. Based on these results, the proposed batch plant project does not have the potential to result in significant impacts to historical or unique cultural resources, and no additional archaeological work is recommended.”<sup>7</sup>

## **REGULATORY SETTING**

### ***Federal Agencies & Regulations***

#### **The National Historic Preservation Act**

The Advisory Council on Historic Preservation (ACHP) is an independent federal agency with the primary mission to encourage historic preservation in the government and across the nation. The National Historic Preservation Act (NHPA), which established the ACHP in 1966, directs federal agencies to act as responsible stewards when their actions affect historic properties. The ACHP is given the legal responsibility to assist federal agencies in their efforts and to ensure they consider preservation during project planning reviews federal programs and policies to promote effectiveness, coordination, and consistency with national preservation policies. A key ACHP function is overseeing the federal historic preservation review process established by Section 106 of the NHPA. Section 106 requires federal agencies to consider the effects of projects, carried out by them or subject to their assistance or approval, on historic properties and provide the ACHP an opportunity to comment on these projects prior to a final decision on them.

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<sup>7</sup> “7763 Avenue 280, Phase I Project” report (Cultural or Phase I report). Page. iii. Prepared by ASM Affiliates, Inc. and included in Appendix “C” of this DEIR.



The National Historic Preservation Act of 1966 (NHPA) established federal regulations for the purpose of protecting significant cultural resources.<sup>8</sup>

### ***State Agencies & Regulations***

#### **California State Office of Historic Preservation (OHP)**

The California State Office of Historic Preservation (OHP) is responsible for administering federally and state mandated historic preservation programs to further the identification, evaluation, registration and protection of California's irreplaceable archaeological and historical resources under the direction of the State Historic Preservation Officer (SHPO), appointed by the governor, and the State Historical Resources Commission, a nine-member state review board appointed by the governor.<sup>9</sup>

Among OHP's responsibilities are identifying, evaluating, and registering historic properties; and ensuring compliance with federal and state regulations. The OHP administers the State Register of Historical Resources and maintains the California Historical Resources Information System (CHRIS) database. The CHRIS database includes a statewide Historical Resources Inventory (HRI) database. The records are maintained and managed under contract by eleven independent regional Information Centers. Tulare, Fresno, Kern, Kings and Madera counties are served by the Southern San Joaquin Valley Historical Resources Information Center (Center), located in Bakersfield, CA. The Center provides information on known historic and cultural resources to governments, institutions and individuals.<sup>10</sup>

A historical resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if it:

- (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- (B) Is associated with the lives of persons important to our past;
- (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- (D) Has yielded, or may be likely to yield, information important in prehistory or history.<sup>11</sup>

#### **CEQA Guidelines: Historical Resources Definition**

CEQA Guidelines Section 15064.5(a) defines a historical resource as:

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<sup>8</sup> Advisory Council on Historic Preservation. [https://www.achp.gov/sites/default/files/documents/2018-06/AboutTheACHPFactSheet2015v3\\_1.pdf](https://www.achp.gov/sites/default/files/documents/2018-06/AboutTheACHPFactSheet2015v3_1.pdf). Accessed September 2019.

<sup>9</sup> Advisory Council on Historic Preservation, State Historic Preservation Officers, <http://www.achp.gov/shpo.html>, Accessed September 2019.

<sup>10</sup> California Office of Historic Preservation, About OHP, [http://ohp.parks.ca.gov/?page\\_id=1066](http://ohp.parks.ca.gov/?page_id=1066). Accessed September 2019.

<sup>11</sup> California Office of Historic Preservation. California Register. [http://www.ohp.parks.ca.gov/?page\\_id=21238](http://www.ohp.parks.ca.gov/?page_id=21238). Accessed September 2019.



- “(1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4850 et seq.).
- (2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- (3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code, § 5024.1, Title 14 CCR, Section 4852) including the following:
- (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
  - (B) Is associated with the lives of persons important in our past;
  - (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
  - (D) Has yielded, or may be likely to yield, information important in prehistory or history.
- (4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.”<sup>12</sup>

#### CEQA Guidelines: Archaeological Resources

Section 15064.5(c) of CEQA Guidelines provides specific guidance on the treatment of archaeological resources as noted below.

- “(1) When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subdivision (a).

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<sup>12</sup> CEQA Guidelines, Section 15064.5(a).



- (2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.
- (3) If an archaeological site does not meet the criteria defined in subdivision (a), but does meet the definition of a unique archeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c-f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.
- (4) If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.”<sup>13</sup>

#### CEQA Guidelines: Human Remains

Public Resources Code Sections 5097.94 and 5097.98 provide guidance on the disposition of Native American burials (human remains), and fall within the jurisdiction of the Native American Heritage Commission:

- “(d) When an initial study identifies the existence of, or the probable likelihood, of Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code Section 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the Native American Heritage Commission. Action implementing such an agreement is exempt from:
  - (1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).
  - (2) The requirements of CEQA and the Coastal Act.”<sup>14</sup>
- “(e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:
  - (1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

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<sup>13</sup> CEQA Guidelines, Section 15064.5(c).

<sup>14</sup> CEQA Guidelines, Section 15064.5(d).



- (A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and
  - (B) If the coroner determines the remains to be Native American:
    - 1. The coroner shall contact the Native American Heritage Commission within 24 hours.
    - 2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
    - 3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or
  - (2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
    - (A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
    - (B) The descendant identified fails to make a recommendation; or
    - (C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.”<sup>15</sup>
- “(f) As part of the objectives, criteria, and procedures required by Section 21082 of the Public Resources Code, a lead agency should make provisions for historical or unique archaeological resources accidentally discovered during construction. These provisions should include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place.”<sup>16</sup>

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<sup>15</sup> CEQA Guidelines, Section 15064.5 (e).

<sup>16</sup> CEQA Guidelines, Section 15064.5(f).



#### CEQA Guidelines: Paleontological Resources

Public Resources Code Section 5097.5 prohibits excavation or removal of any “vertebrate paleontological site...or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands.”<sup>17</sup>

#### Tribal Consultation Requirements: SB 18 (Burton, 2004)

On September 29, 2004, Governor Schwarzenegger signed Senate Bill 18, Tribal Consultation Guidelines, into law. SB 18, enacted March 1, 2005, creates a mechanism for California Native American Tribes to identify culturally significant sites that are located within public or private lands within the city or county’s jurisdiction. SB 18 requires cities and counties to contact, and offer to consult with, California Native American Tribes before adopting or amending a General Plan, a Specific Plan, or when designating land as Open Space, for the purpose of protecting Native American Cultural Places (PRC 5097.9 and 5097.993). The Native American Heritage Commission (NAHC) provides local governments with a consultation list of tribal governments with traditional lands or cultural places located within the Project Area of Potential Effect. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe.<sup>18</sup>

#### ***Local Policy & Regulations***

##### Tulare County General Plan Policies

The Tulare County General Plan has a number of policies that apply to projects within County of Tulare. General Plan policies that relate to the proposed Project are listed below.

**ERM-6.1 Evaluation of Cultural and Archaeological Resources** - The County shall participate in and support efforts to identify its significant cultural and archaeological resources using appropriate State and Federal standards.

**ERM-6.2 Protection of Resources with Potential State or Federal Designations** - The County shall protect cultural and archaeological sites with demonstrated potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation’s California Points of Interest and California Inventory of Historic Resources. Such sites may be of Statewide or local significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, or other values as determined by a qualified archaeological professional.

**ERM-6.3 Alteration of Sites with Identified Cultural Resources** - When planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. Development can be permitted

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<sup>17</sup> Public Resources Code Section 5097.5.

<sup>18</sup> Government Code §65352.3.



in these areas only after a site-specific investigation has been conducted pursuant to CEQA to define the extent and value of resource, and mitigation measures proposed for any impacts the development may have on the resource.

**ERM-6.4 Mitigation** - If preservation of cultural resources is not feasible, every effort shall be made to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records.

**ERM-6.8 Solicit Input from Local Native Americans** - The County shall continue to solicit input from the local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance.

## IMPACT EVALUATION

### Would the project:

- a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5? and;
- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

#### Project Impact Analysis:

#### *No Impact*

As indicated in the “7763 Avenue 280, Phase I Project” report (Phase I report), “The proposed batch plant project is located on the south side of Avenue 280/West Caldwell Avenue, approximately 0.65-miles west of State Highway 99, on the open flats of the San Joaquin Valley. Elevation within the project area, which is flat, is approximately 285-ft above mean sea level (amsl).”<sup>19</sup> “The proposed project consists of the operation of a portable concrete batch plant, a portable concrete and asphalt recycling plant, and a hot mix asphalt plant, with storage for appropriate materials for and output of each of these systems. The project location currently contains three standing structures: an existing office building, shop, and well with water tank storage above. All three of these structures will be retained and used as part of the batch plant facility.”<sup>20</sup>

#### *Archival Records Search*

“In order to determine whether the study area had been previously surveyed for cultural resources, and/or whether any such resources were known to exist on any of them, an archival records search was conducted by the staff of the Southern San Joaquin Valley Information Center (IC) on 24 July 2018. The records search was completed to determine: (i) if prehistoric or historical archaeological sites had previously been recorded within the study

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<sup>19</sup> “7763 Avenue 280, Phase I Project” report (Phase I report). Page. iii. Prepared by ASM Affiliates, Inc. and included in Appendix “C” of this DEIR.

<sup>20</sup> Ibid.



areas; (ii) if the project area had been systematically surveyed by archaeologists prior to the initiation of this field study; and/or (iii) whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive. Records examined included archaeological site files and maps, the NRHP, Historic Property Data File, California Inventory of Historic Resources, and the California Points of Historic Interest.

According to the IC records (Confidential Appendix A) [of the Phase I report], no previous surveys have been completed within the project area and no tribal or archaeological resources are known to exist within it. One previous survey had been completed within 0.5-miles of the project area (IC# TU-534; Peak et al. 1975, Archaeological Assessment of Cultural Resources, Mid-Valley Canal Project, Fresno, Tulare, Merced and Kings Counties, California). Only a single cultural resource had been recorded within 0.5-miles of the project area: P-54-2179/CA-TUL-3053H, the Evans Ditch, located northeast of the project area.

A records search was also conducted at the Native American Heritage Commission (NAHC) Sacred Lands File (Confidential Appendix A) [of the Phase I report]. No sacred sites or tribal cultural resources were known in or in the vicinity of the APE. Outreach letters were then sent to the tribal contact list provided by the NAHC; follow-up phone calls were made one month later. No responses were received from any of the contacts”<sup>21</sup>

### ***Field Methods***

“An intensive Phase I survey of the 7763 Avenue 280 project area was conducted by Robert Azpitarte, B.A., ASM Associate Archaeologist, on 9 August 2018. The field methods employed included intensive pedestrian examination of the ground surface for evidence of archaeological sites in the form of artifacts, surface features (such as bedrock mortars, historical mining equipment), and archaeological indicators (e.g., organically enriched midden soil, burnt animal bone); the identification and location of any discovered sites, should they be present; tabulation and recording of surface diagnostic artifacts; site sketch mapping; preliminary evaluation of site integrity; and site recording, following the California Office of Historic Preservation Instructions for Recording Historic Resources, using DPR 523 forms. Parallel survey transects spaced at 15-m apart were employed for the inventory. These covered the entirety of the approximately 2-ac APE.”<sup>22</sup>

### ***Survey Results***

“The 20-acres project area is open, flat land surrounded by corn fields to the east, west and south (Figure 2). The groundsurface of the project area has been heavily disturbed by previous agricultural use. A medium to low density of low ground cover, consisting primarily of intrusive grasses, was present at the time of the survey. Groundsurface visibility was however adequate for intensive surveying.

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<sup>21</sup> Op. Cit. 17.

<sup>22</sup> Op. Cit. 19.



A[n] L-shaped compound containing three standing structures is present in the northwest corner of the 20-acres property (Figure 3) [of the Phase I report]. This compound is surrounded by a 6-feet high chain link fence. The structures consist of a stucco office/administration building, a large sheet-metal-sided barn/shop, and a well with water tower overhead. Based on USGS topographical quadrangles, these structures were built sometime before 1971, probably during the late 1960s. They are still in use and will be retained and used as part of the batch plant facility. A large stock-pile of broken concrete is located between the office building and water tower, presumably in anticipation of future concrete recycling at this location.

No archaeological resources of any kind were identified within the 20-acres project area.”<sup>23</sup>

Therefore, ***No Project-specific Impact*** related to this Checklist Item would occur as a result of the Project.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County General Plan 2030 Update, Tulare County General Plan 2030 Update Background Report, and the Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (RDEIR).

The proposed Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. As the proposed Project would result in no Project-specific impact, cumulative impacts would also result in ***No Impact***.

Conclusion: ***No Impact***

The Project would result in No Project-specific and Cumulative Impacts related to Checklist Items a) and b).

**c) Disturb any human remains, including those interred outside of formal cemeteries?**

Project Impact Analysis: ***Less Than Significant Impact***

The proposed Project site has previously and is currently being used for agricultural purposes and no cultural resources have been encountered previously on the proposed Project site, as described in the cultural resources records search. Although it cannot conclusively be demonstrated that no subsurface human remains are present, as such, in the unlikely event that human remains are discovered, Section 7050.5 of the California Health and Safety Code and (CEQA Guidelines) Section 15064.5 would be implemented as shown below, resulting in a ***Less Than Significant Impact***.

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<sup>23</sup> Op. Cit.



Cumulative Impact Analysis:

***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County General Plan 2030 Update, Tulare County General Plan 2030 Update Background Report, and the Tulare County General Plan 2030 Update RDEIR.

The proposed Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. Potential impacts to this resource by the proposed Project would be reduced to ***Less Than Significant Project-specific and Cumulative Impacts***.

Actions required by law to be taken in the unlikely event that human remains are discovered:

**Consistent with Section 7050.5 of the California Health and Safety Code (and CEQA Guidelines Section 15064.5), if human remains of Native American origin are discovered during project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:**

- 1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:**
  - a. The Tulare County Coroner/Sheriff must be contacted to determine that no investigation of the cause of death is required; and**
  - b. If the coroner determines the remains to be Native American:**
    - i. The coroner shall contact the Native American Heritage Commission within 24 hours.**
    - ii. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.**
    - iii. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or**
- 2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.**
  - a. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a**



**recommendation within 24 hours after being notified by the commission.**

- b. The descendant fails to make a recommendation; or**
- c. The landowner or his authorized representative rejects the recommendation of the descendent.**

Conclusion: *Less Than Significant Impact*

As indicated earlier, Section 7050.5 of the California Health and Safety Code and CEQA Guidelines Section 15064.5 would be implemented in the unlikely event that human remains are discovered resulting in *Less Than Significant Project-specific and Cumulative Impacts* related to this Checklist Item.

## ACRONYMS

CEQA	California Environmental Quality Act
CHRIS	California Historic Resources Information System
CRHR	California Register of Historical Resources
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HRI	Historic Resources Inventory
NAHC	Native American Historic Commission
NHPA	National Historic Preservation Act of 1966
OHP	California State Office of Historic Preservation
PRC	Public Resources Code
SHPO	State Historic Preservation Officers

## REFERENCES

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CEQA Guidelines, Section 15064.5(a)(b)(c)(d)(e)(f)



CEQA Section 21084.1

Government Code Section 65352.3

*“7763 Avenue 280, Phase I Project”* report (Phase I report). Prepared by ASM Affiliates, Inc. and included in Appendix “C” of this DEIR

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<http://generalplan.co.tulare.ca.us/documents.html>, then access by clicking “Recirculated DEIR”.



# Energy

## Chapter 3.6

### SUMMARY OF FINDINGS

Based on the impact analysis below, potential impacts to Energy as a result of the proposed Project are determined to be ***Less Than Significant***. The impact determinations in this chapter are based upon information obtained from the Project Description, the applicant's agent providing estimates of pertinent energy-related consumption, and State of California energy-related sources that are publically and readily available. A detailed review of potential impacts is provided in the analysis below.

### INTRODUCTION

Energy consumption is analyzed in an EIR because of the environmental impacts associated with its production and usage. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal, etc.) and emission of pollutants during both the production and consumption phases. Energy usage is typically quantified using the British Thermal Unit (BTU). The BTU is the amount of energy that is required to raise the temperature of one pound of water by one degree Fahrenheit. As points of reference, the approximate amount of energy contained in a gallon of gasoline, a cubic foot of natural gas, and a kilowatt hour (kWhr) of electricity are 123,000 BTUs, 1,000 BTUs, and 3,400 BTUs, respectively. Natural gas usage is expressed in therms. A therm is equal to 100,000 BTU. Energy conservation is embodied in many federal, state and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the EnergyStar™ program) and transportation (e.g., fuel efficiency standards). At the state level, Title 24 of the California Administrative Code sets energy standards for buildings, rebates/tax credits are provided for installation of renewable energy systems, and the Flex Your Power program promotes conservation in multiple areas. Also, as described further in this section, the Tulare County General Plan currently contains policies that promotes energy conservation and efficiency measures, energy conservation awareness, and renewable energy.

### California Environmental Quality Act (CEQA) Requirements

"In 1974, the Legislature adopted the Warren-Alquist State Energy Resources Conservation and Development Act. (Pub. Resources Code, § 25000 et seq.) That act created what is now known as the California Energy Commission, and enabled it to adopt building energy standards. (See, e.g., id. at § 25402.) At that time, the Legislature found the "rapid rate of growth in demand for electric energy is in part due to wasteful, uneconomic, inefficient, and unnecessary uses of power and a continuation of this trend will result in serious depletion or irreversible commitment of energy, land and water resources, and potential threats to the state's environmental quality." (Id. at § 25002; see also § 25007 ("It is further the policy of the state and the intent of the Legislature



to employ a range of measures to reduce wasteful, uneconomical, and unnecessary uses of energy, thereby reducing the rate of growth of energy consumption, prudently conserve energy resources, and assure statewide environmental, public safety, and land use goals”))

The same year that the Legislature adopted Warren-Alquist, it also added section 21100(b)(3) to CEQA, requiring environmental impact reports to include “measures to reduce the wasteful, inefficient, and unnecessary consumption of energy.” As explained by a court shortly after it was enacted, the “energy mitigation amendment is substantive and not procedural in nature and was enacted for the purpose of requiring the lead agencies to focus upon the energy problem in the preparation of the final EIR.” (People v. County of Kern (1976) 62 Cal.App.3d 761, 774 (emphasis added)). It compels an affirmative investigation of the project’s potential energy use and feasible ways to reduce that use.

Though Appendix F of the CEQA Guidelines has contained guidance on energy analysis for decades, implementation among lead agencies has not been consistent. (See, e.g., California Clean Energy Committee v. City of Woodland, supra, 225 Cal.App.4th 173, 209.) While California is a leader in energy conservation, the importance of addressing energy impacts has not diminished since 1974. On the contrary, given the need to avoid the effects of climate change, energy use is an issue that we cannot afford to ignore. As the California Energy Commission’s Integrated Energy Policy Report (2016) explains:

Energy fuels the economy, but it is also the biggest source of greenhouse gas emissions that lead to climate change. Despite California’s leadership, Californians are experiencing the impacts of climate change including higher temperatures, prolonged drought, and more wildfires. There is an urgent need to reduce greenhouse gas emissions and increase the state’s resiliency to climate change. With transportation accounting for about 37 percent of California’s greenhouse gas emissions in 2014, transforming California’s transportation system away from gasoline to zero emission and near-zero-emission vehicles is a fundamental part of the state’s efforts to meet its climate goals. Energy efficiency and demand response are also key components of the state’s strategy to reduce greenhouse gas emissions. (Id. at pp. 5, 8, 10.) Appendix F was revised in 2009 to clarify that analysis of energy impacts is mandatory. OPR today proposes to add a subdivision in section 15126.2 on energy impacts to further elevate the issue, and remove any question about whether such an analysis is required.”<sup>1</sup>

Further, an “Explanation of Proposed Amendments” contained in the Proposed Update (and now adopted amendments) to the CEQA Guidelines documents stated that OPR proposed to add a new subdivision (b) to section 15126.2 which discusses the required contents of an environmental impact report. The new subdivision would specifically address the analysis of a project’s potential energy impacts. This addition is necessary for several reasons explained as follows.<sup>2</sup>

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<sup>1</sup> State of California. Office of Planning and Research. Proposed Update to the CEQA Guidelines/ November 2017. Pages 65-66. Accessed June 2019 at: [http://opr.ca.gov/docs/20171127\\_Comprehensive\\_CEQA\\_Guidelines\\_Package\\_Nov\\_2017.pdf](http://opr.ca.gov/docs/20171127_Comprehensive_CEQA_Guidelines_Package_Nov_2017.pdf)

<sup>2</sup> Ibid. 66.



“The first sentence clarifies that an EIR must analyze whether a project will result in significant environmental effects due to “wasteful, inefficient, or unnecessary consumption of energy.” This clarification is necessary to implement Public Resources Code section 21100(b)(3). Since the duty to impose mitigation measures arises when a lead agency determines that the project may have a significant effect, section 21100(b)(3) necessarily requires both analysis and a determination of significance in addition to energy efficiency measures. (Pub. Resources Code, § 21002.)

The second sentence further clarifies that all aspects of the project must be considered in the analysis. This clarification is consistent with the rule that lead agencies must consider the “whole of the project” in considering impacts. It is also necessary to ensure that lead agencies consider issues beyond just building design. (See, e.g., *California Clean Energy Com. v. City of Woodland*, supra, 225 Cal.App.4th at pp. 210-212.) The analysis of vehicle miles traveled provided in proposed section 15064.3 (implementing Public Resources Code section 21099 (SB 743)) on transportation impacts may be relevant to this analysis.

The third sentence signals that the analysis of energy impacts may need to extend beyond building code compliance. (Ibid.) The requirement to determine whether a project’s use of energy is “wasteful, inefficient, and unnecessary” compels consideration of the project in its context. (Pub. Resources Code, § 21100(b)(3).) While building code compliance is a relevant factor, the generalized rules in the building code will not necessarily indicate whether a particular project’s energy use could be improved. (*Tracy First v. City of Tracy* (2009) 177 Cal.App.4th 912, 933 (after analysis, lead agency concludes that project proposed to be at least 25% more energy efficient than the building code requires would have a less than significant impact); see also CEQA Guidelines, Appendix F, § II.C.4 (describing building code compliance as one of several different considerations in determining the significance of a project’s energy impacts).) That the Legislature added the energy analysis requirement in CEQA at the same time that it created an Energy Commission authorized to impose building energy standards indicates that compliance with the building code is a necessary but not exclusive means of satisfying CEQA’s independent requirement to analyze energy impacts broadly.

The new proposed [now adopted] subdivision (b) also provides a cross-reference to Appendix F. This cross-reference is necessary to direct lead agencies to the more detailed provisions contained in that appendix. Finally, new proposed [now adopted] subdivision (b) cautions that the analysis of energy impacts is subject to the rule of reason, and must focus on energy demand actually caused by the project. This sentence is necessary to place reasonable limits on the analysis. Specifically, it signals that a full “lifecycle” analysis that would account for energy used in building materials and consumer products will generally not be required. (See also Cal. Natural Resources Agency, Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines



Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97 (Dec. 2009) at pp. 71-72.)”<sup>3</sup>

Specifically, Section 15121.6 added new sub-section (b), to wit: “(b) Energy Impacts. If the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary consumption of energy, the EIR shall analyze and mitigate that energy use. This analysis should include the project’s energy use for all project phases and components, including transportation-related energy, during construction and operation. In addition to building code compliance, other relevant considerations may include, among others, the project’s size, location, orientation, equipment use and any renewable energy features that could be incorporated into the project. (Guidance on information that may be included in such an analysis is presented in Appendix F.) This analysis is subject to the rule of reason and shall focus on energy demand that is caused by the project. This analysis may be included in related analyses of air quality, greenhouse gas emissions or utilities in the discretion of the lead agency.”<sup>4</sup>

#### CEQA Thresholds of Significance

- Result in significant environmental effects due to wasteful, inefficient, or unnecessary consumption of energy.
- The project’s energy use for all project phases and components, including transportation-related energy, during construction and operation.
- The project’s size, location, orientation, equipment use and any renewable energy features that could be incorporated into the project.
- Analysis is subject to the rule of reason and shall focus on energy demand that is caused by the project.

### **ENVIRONMENTAL SETTING**

#### Natural Gas and Electric Service

“Southern California Edison provides electric service to the majority of Tulare County, including the majority of the San Joaquin Valley and the foothills. Natural gas service is primarily provided by The Gas Company (formerly Southern California Gas Company). Pacific Gas & Electric also serves northern Tulare County’s electric needs on limited basis. The electrical facilities network includes both overhead and underground lines, with new development required to install underground service lines. All utility providers indicate that additional service should be available to new development, depending on the necessary load of the services requested.”<sup>5</sup>

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<sup>3</sup> Op. Cit. 66-67.

<sup>4</sup> Op. Cit. 67-68.

<sup>5</sup> Tulare County General Plan 2030 Update Recirculated Draft EIR. 3.4 Energy and Global Climate Change. February 2010. Page 3.4-13  
Accessed June 2019 at: <http://generalplan.co.tulare.ca.us/documents/generalplan2010/RecirculatedDraftEIR.pdf>



### Existing Energy Consumption

Electrical and natural gas services for the Project area are provided by Southern California Edison (SCE), and Southern California Gas Company (SoCal Gas), respectively. In 2018, SCE provided 4,422.976762 gigawatt-hours (GWh) of electricity to Tulare County customers.<sup>6</sup> Also in 2016, SoCal Gas provided a total of 157.285390 million therms in Tulare County<sup>7</sup> See **Table 3.6-1**.

<b>Table 3.6-1</b>		
<b>2018 County and State Energy Demands on Energy Providers</b>		
<b>Southern California Gas and Southern California Edison<sup>89</sup></b>		
<b>Demand by:</b>	<b>Electricity (in MWh)</b>	<b>Gas (in Therms)</b>
Tulare County	<sup>1</sup> 4,433,976.762	<sup>2</sup> 157,285,390
SCE and SCG Service Areas	<sup>1</sup> 83,399,988.199	<sup>2</sup> 5,156,078,935
<i>Notes: 1 Converted to MWh as CEC Energy Reports expresses in Millions of kWh (GWh).</i>		
<i>2 Converted to MWh as CEC Energy Reports expresses in Millions of Therms.</i>		

It is noted that the Project site anticipates being served by electricity from SCE, but will rely on liquid propane gas (LPG) as the fuel source to heat the oil which will be mixed with the asphalt. As such, SoCal Gas will not be utilized or impacted.

## **REGULATORY SETTING**

### ***Federal Agencies & Regulations***

#### Energy Policy Act of 2005

The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under the Act, consumers and businesses can obtain federal tax credits for purchasing fuel efficient appliances and products, including buying hybrid vehicles, building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

### ***State Agencies & Regulations***

#### California Energy Commission

The California Energy Commission (CEC) was created in 1974 to serve as the state's primary energy policy and planning agency. The CEC is tasked with reducing energy costs and

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<sup>6</sup> California Energy Commission. California Energy Consumption Database. Electricity Consumption by County. Energy reports accessed August 2019 at: <http://ecdms.energy.ca.gov/electbycounty.aspx>.

<sup>7</sup> Ibid. Gas Consumption by County. Accessed August 2019 at: <http://ecdms.energy.ca.gov/gasbycounty.aspx>.

<sup>8</sup> Op. Cit. Accessed August 2019 at: <http://ecdms.energy.ca.gov/electbycounty.aspx>

<sup>9</sup> Op. Cit. Accessed August 2019 at: <http://ecdms.energy.ca.gov/electbyplan.aspx>



environmental impacts of energy use - such as greenhouse gas emissions - while ensuring a safe, resilient, and reliable supply of energy.

#### California 2008 Energy Action Plan Update<sup>10</sup>

The 2008 update to the 2005 Energy Action Plan II is the State's principal energy planning and policy document (State of California 2008). The updated document examines the state's ongoing actions in the context of global climate change. The 2005 Energy Action Plan II continues the goals of the original 2003 Energy Action Plan, describes a coordinated implementation plan for state energy policies, and identifies specific action areas to ensure that California's energy resources are adequate, affordable, technologically advanced, and environmentally sound. In accordance with this plan, the first-priority actions to address California's increasing energy demands are energy efficiency and demand response (i.e., reduction of customer energy usage during peak periods to address system reliability and support the best use of energy infrastructure). Additional priorities include the use of renewable sources of power and distributed generation (i.e., the use of relatively small power plants near or at centers of high demand). To the extent that these actions are unable to satisfy the increasing energy demand and transmission capacity needs, clean and efficient fossil-fired generation is supported. The California 2008 Energy Action Plan Update examines policy changes in the areas of energy efficiency, demand response, renewable energy, electricity reliability and infrastructure, electricity market structure, natural gas supply and infrastructure, research and development, and climate change.

#### State of California Integrated Energy Policy (SB 1389)

State of California Integrated Energy Policy (SB 1389) In 2002, the Legislature passed Senate Bill 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for Zero Emission Vehicles and their infrastructure needs, and encouragement of urban designs that reduce vehicles miles traveled and accommodate pedestrian and bicycle access.

The CEC adopted the 2013 Integrated Energy Policy Report on February 20, 2014. The 2013 Integrated Energy Policy Report provides the results of the CEC's assessment of a variety of issues, including:

- Ensuring that the state has sufficient, reliable, and sage energy infrastructure to meet current and future energy demands;

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<sup>10</sup> California Energy Commission. 2008 Energy Action Plan. February 2008. Accessed August 2019 at: <https://ww2.energy.ca.gov/2008publications/CEC-100-2008-001/CEC-100-2008-001.PDF>



- Monitoring publicly-owned utilities' progress towards achieving 10-year energy efficiency targets; defining and including zero-net-energy goals in state building standards;
- Overcoming challenges to increased use of geothermal heat pump/ground loop technologies and procurement of biomethane;
- Using demand response to meet California's energy needs and integrate renewable technologies;
- Removing barriers to bioenergy development; planning for California's electricity infrastructure needs given potential retirement of power plants and the closure of the San Onofre Nuclear Generating Station;
- Estimating new generation costs for utility-scale renewable and fossil-fueled generation;
- Planning for new or upgraded transmission infrastructure;
- Monitoring utilities' progress in implementing past recommendations related to nuclear power plants;
- Tracking natural gas market trends;
- Implementing the Alternative and Renewable Fuel and Vehicle Technology Program; and,
- Addressing the vulnerability of California's energy supply and demand infrastructure to the effects of climate change; and planning for potential electricity system needs in 2030.

#### California Senate Bill 1037 and Assembly Bill 2021

In 2003, the CPUC and CEC adopted an Energy Action Plan that prioritized resources for meeting California's future energy needs, with energy efficiency identified as the highest priority. Since then, this policy goal has been codified as SB 1037 and AB 2021 into statute through legislation that requires electric utilities to meet their resource needs first with energy efficiency.<sup>11</sup> This policy also set new targets for statewide annual energy demand reductions of 32,000 GWh and 800 million therms from business-as-usual<sup>12</sup>—enough to power more than 5 million homes or replace the need to build about ten new large power plants (500 MW each). These targets represent a higher goal than existing efficiency targets established by CPUC for investor-owned utilities due to the inclusion of innovative strategies. Achieving the State's energy efficiency targets will require coordinated efforts from the State, the federal government, energy companies, and customers. The California Air Resources Board (ARB) will work with CEC and CPUC to facilitate these partnerships. California's energy efficiency programs for buildings and appliances have generated more than \$50 billion in savings over the past three decades.

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<sup>11</sup> SB 1037 (Kehoe, Chapter 366, Statutes of 2005) and AB 2021 (Levine, Chapter 734, Statutes of 2006) directed electricity corporations subject to CPUC's authority and publicly-owned electricity utilities to first meet their unmet resource needs through all available energy efficiency and demand response resources that are cost-effective, reliable, and feasible.

<sup>12</sup> The savings targeted here are additional to savings currently assumed to be incorporated in CEC's 2007 demand forecasts. However, CEC has initiated a public process to better determine the quantity of energy savings from standards, utility programs, and market effects that are embedded in the baseline demand forecast.



California Global Warming Solutions Act of 2006 (Assembly Bill 32)

California Global Warming Solutions Act of 2006 (Assembly Bill 32) Assembly Bill 32 (Health and Safety Code Sections 38500–38599; AB 32), also known as the California Global Warming Solutions Act of 2006, commits the state to achieving year 2000 GHG emission levels by 2010 and year 1990 levels by 2020. To achieve these goals, AB 32 tasked the California Public Utilities Commission and CEC with providing information, analysis, and recommendations to the California Air Resources Board regarding ways to reduce GHG emissions in the electricity and natural gas utility sectors.

California Energy Code (Title 24, Part 6, Building Energy Efficiency Standards)

California Code of Regulations Title 24, Part 6 comprises the California Energy Code, which was adopted to ensure that building construction, system design and installation achieve energy efficiency. The California Energy Code was first established in 1978 by the CEC in response to a legislative mandate to reduce California’s energy consumption, and apply to energy consumed for heating, cooling, ventilation, water heating, and lighting in new residential and non-residential buildings. The standards are updated periodically to increase the baseline energy efficiency requirements. The 2013 Building Energy Efficiency Standards focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings and include requirements to enable both demand reductions during critical peak periods and future solar electric and thermal system installations. Although it was not originally intended to reduce greenhouse gas (GHG) emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

California Green Building Standards Code (Title 24, Part II, CALGreen)

The California Building Standards Commission adopted the California Green Buildings Standards Code (CALGreen in Part 11 of the Title 24 Building Standards Code) for all new construction statewide on July 17, 2008. Originally a volunteer measure, the code became mandatory in 2010 and the most recent update (2013) went into effect on January 1, 2014. CALGreen sets targets for energy efficiency, water consumption, dual plumbing systems for potable and recyclable water, diversion of construction waste from landfills, and use of environmentally sensitive materials in construction and design, including eco-friendly flooring, carpeting, paint, coatings, thermal insulation, and acoustical wall and ceiling panels. The 2013 CALGreen Code includes mandatory measures for non-residential development related to site development; water use; weather resistance and moisture management; construction waste reduction, disposal, and recycling; building maintenance and operation; pollutant control; indoor air quality; environmental comfort; and outdoor air quality. Mandatory measures for residential development pertain to green building; planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; environmental quality; and installer and special inspector qualifications.



#### Clean Energy and Pollution Reduction Act (SB 350)

The Clean Energy and Pollution Reduction Act (SB 350) was passed by California Governor Brown on October 7, 2015, and establishes new clean energy, clean air, and greenhouse gas reduction goals for the year 2030 and beyond. SB 350 establishes a greenhouse gas reduction target of 40 percent below 1990 levels for the State of California, further enhancing the ability for the state to meet the goal of reducing greenhouse gas emissions by 80 percent below 1990 levels by the year 2050.

#### Renewable Portfolio Standard (SB 1078 and SB 107)

Established in 2002 under SB 1078, the State's Renewables Portfolio Standard (RPS) was amended under SB 107 to require accelerated energy reduction goals by requiring that by the year 2010, 20 percent of electricity sales in the state be served by renewable energy resources. In years following its adoption, Executive Order S-14-08 was signed, requiring electricity retail sellers to provide 33 percent of their service loads with renewable energy by the year 2020. In 2011, SB X1-2 was signed, aligning the RPS target with the 33 percent requirement by the year 2020. This new RPS applied to all state electricity retailers, including publicly owned utilities, investor-owned utilities, electrical service providers, and community choice aggregators. All entities included under the RPS were required to adopt the RPS 20 percent by year 2020 reduction goal by the end of 2013, adopt a reduction goal of 25 percent by the end of 2016, and meet the 33 percent reduction goal by the end of 2020. In addition, the Air Resources Board, under Executive Order S-21-09, was required to adopt regulations consistent with these 33 percent renewable energy targets.

#### ***Local Policy & Regulations***

##### Tulare County General Plan Policies

The Tulare County General Plan has a number of policies that apply to projects within County of Tulare. General Plan policies that relate to the proposed Project are listed as follows:

**ERM-4.1 Energy Conservation and Efficiency Measures** - The County shall encourage the use of solar energy, solar hot water panels, and other energy conservation and efficiency features in new construction and renovation of existing structures in accordance with State law.

**ERM-4.3 Local and State Programs** - The County shall participate, to the extent feasible, in local and State programs that strive to reduce the consumption of natural or man-made energy sources.

**ERM-4.4 Promote Energy Conservation Awareness** - The County should coordinate with local utility providers to provide public education on energy conservation programs



**ERM-4.6 Renewable Energy** - The County shall support efforts, when appropriately sited, for the development and use of alternative energy resources, including renewable energy such as wind and solar, biofuels and co-generation.

## **PROJECT SPECIFIC ENERGY USAGE**

### Electricity and Natural Gas

Implementation of the proposed Project would result in the commitment of additional electricity through operation of the Project. Instead of natural gas, the Project will rely on liquefied propane gas delivered to the site on an as needed basis. The applicant's agent has indicated that operation of the proposed Project is estimated to result in the demand of 7,000 megawatt-hours per year (MWh/yr) of electricity (or about 0.0022% of Tulare County's non-residential demand (see **Table 3.6-2**) and 403,000 therms per year (therms/yr) of liquefied propane gas (stored on site) rather than utilizing natural gas from the nearest provider (SoCal Gas). However, in the event the Applicant determines that it is in its best interest, **Table 3.6-2** includes hypothetical natural gas demand. As shown in **Table 3.6-2**, the Project's hypothetical natural gas demand would represent 0.0025 percent of Tulare County's and 0.000078 percent of SoCal Gas' total 2018 gas demands for the County

<b>Table 3.6-2</b>		
<b>Project Electricity and Natural Gas Demands</b>		
	Natural Gas Demand (therms/yr)	Electricity Demand (MWh/yr)
Proposed Project (Asphalt/Concrete Batch Plant) <sup>1</sup>	403,000 <sup>2</sup>	7,000
Tulare County Average (Non-Residential)	104,870,971	3,164,001
Statewide Average (Non-Residential)	8,411,593,081	194,014,563
<i>1 Provided by applicant's agent.</i>		
<i>2 Hypothetical as the Project will utilize compressed natural gas delivered to the site as needed.</i>		

### Construction Fuel Consumption

As construction-related activities will be one-time, short-duration, and temporary in nature; gasoline and diesel fuel have not been estimated. Typical construction equipment usage will not occur for this Project as there will be minimal land shaping as the site is flat (as such, grading will be kept to a minimum), no new construction will occur as the existing structure will be converted into office space, truck parking areas will require minimal grading and will consist of new and decomposed gravel, a small parking area to accommodate 10-20 employee vehicles will be paved near the office, storage pile areas will not require any land-shaping, and construction of an appropriately sized engineered storm water basin. The asphalt and concrete batch plants (powered by electricity) will be assembled rather than constructed; a portable crusher will be brought on site as needed (approximately 5-10 times per year, it operates on Tier 4 diesel engines.



### Operational Vehicle Fuel Consumption

Operation of the Project would result in the daily consumption of vehicle fuel as haulers would travel to and from the Project site as they would contribute approximately 92.7% of all trips; employees are anticipated to contribute 7.3% of all trips. In order to estimate fuel consumption, it is necessary to estimate vehicle type(s), daily distance(s) travelled (in vehicle miles travelled (VMT)), and average fuel economy by vehicle type(s). According to the Tulare County Association of Governments (TCAG), all of Tulare County averaged 10,650,825 million VMT/day.<sup>13</sup> Based on this estimate, adding the Project's VMT (12,948) to the figure provided by TCAG would result in a contribution of approximately 0.0012% of all daily VMT in Tulare County. TCAG also provided an estimated County-wide daily VMT for a broad range of heavy-duty vehicles at 3,127,189; as such, adding the Project's heavy-duty truck VMT to this figure would result in a contribution of approximately 0.0041% of heavy-duty truck VMT.

As provided in **Table 3.6-3**, Project operation is anticipated to result in the generation of an additional 3,237,040 VMT annually, or approximately 0.00087 percent of the County's annual VMT (based on 2017 figures). Using vehicle fleet mix data provided by the applicant and average fuel economy information provided by the Bureau of Transportation Statistics, the Project-generated annual VMT would result in the consumption of approximately 9,860 gallons of gasoline fuel per year and 570,754 gallons of diesel fuel per year, representing approximately 0.000024 percent and 0.00042 percent; respectively, of the statewide vehicle fuel demand.<sup>14</sup>

<b>Table 3.6-3</b>				
<b>Vehicle Miles Traveled<sup>15,16</sup></b>				
	<b>Population</b>	<b>Total Annual VMT</b>	<b>Daily VMT</b>	
			<b>250 Days/Yr.</b>	<b>365 Days/Yr.</b>
<b>State</b>	39,523,613	334,700,000,000	1,338,800,000	916,986,301
<b>Tulare County</b>	471,686	3,686,282,000	14,745,128	10,099,403
<b>Proposed Project <sup>2</sup></b>	N/A	3,237,040	12,948	8,869 <sup>a</sup>

<sup>a</sup> For illustrative and informational purposes only as the Project will not operate 365/yr.

**Table 3.6-4** shows the number of vehicles, VMT, and fuel consumption from the proposed Project. The Project is a non-residential development and is intended to provide services for construction-related materials (i.e., asphalt, cement, and recycled asphalt/concrete) within and without the Project area. Given the nature of the Project (i.e., predominantly manufacturing of asphalt and concrete), VMT has been generalized for likely market areas (expressed in round-trip distances) within 30 miles (local), 68 miles to/from Porterville, 36 miles to the Fresno County line, and 74 miles to the Kern County line. As it is impossible to identify specific destinations of

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<sup>13</sup> Tulare County Association of Government. E-mail received from Roberto Brady, Principal Regional Planner. August 6, 2019.

<sup>14</sup> California Energy Commission Weekly Fuels Watch Report 2017 Weekly Fuels Watch Accessed August 2019 at: [https://ww2.energy.ca.gov/almanac/petroleum\\_data/fuels\\_watch/index\\_cms.html](https://ww2.energy.ca.gov/almanac/petroleum_data/fuels_watch/index_cms.html)

<sup>15</sup> Caltrans. 2016. California Transportation Quick Facts. <http://www.caltrans.ca.gov/drisi/library/qfco/tul/tul2017.pdf>. Accessed August 2019.

<sup>16</sup> Caltrans. 2017. Tulare County Transportation Quick Facts. <http://www.caltrans.ca.gov/drisi/library/qfco/tul/tul2017.pdf>. Accessed August 2019.



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delivery to a project site requiring the material(s) provided by the Project, a reasonable assumption is to generalize likely distances. For instance, the 30-mile assumption would cover every city within Tulare County, and the cities of Hanford and Corcoran in Kings County. The distances to the Fresno and Kern County lines are assumed as destination end-points as it would be speculative to identify specific destinations within the respective counties. It is noted that the 2013 San Joaquin Valley Model Improvement Freight Forecasting Models ((Forecasting Models) at Table 32 Tulare County Truck Trips and Lengths by Types) indicates that medium trucks averaged 12.6 miles per trip and heavy duty trucks averaged 65.8 miles per trip.<sup>17</sup> Using the 12.6 miles average for medium trucks, and converting the distance to round-trips would result in 25.2 round-trip miles which is 5 miles less than the distance used in **Table 3.6-6**. For heavy-duty trucks, a round-trip to the Kern county line would be approximately 74 miles, which is only 8.2 miles longer than the average heavy-duty truck one-way trip noted in the Forecasting Models. However, the center of Bakersfield is approximately 69 miles, which is only 4.2 miles greater than the Forecasting Models' heavy-duty one-way distance for trucks. Of all VMT noted in **Table 3.6-6**, approximately 83.5% of the Project's VMT is from heavy-duty trucks. Further, according to the Forecasting Models document, Tulare County's heavy-duty truck travel distances are nearly twice that of Madera and Kings Counties, 50% greater than Merced, Stanislaus, and San Joaquin Counties, but is approximately 50% of Fresno and Kern Counties. As such, the Project is generally in the "middle ground" when compared to other San Joaquin Valley counties regarding VMT for heavy-duty trucks as shown in **Table 3.6-5**.

<b>Table 3.6-4</b>				
<b>Annual Estimated Operational Vehicle Fuel Consumption<sup>18</sup></b>				
<b>Vehicle Type</b>	<b>Project's Annual Number and Percent of Vehicle Trips<sup>1</sup></b>		<b>National Average Fuel Economy (miles/gallon)<sup>7</sup></b>	<b>National Annual Average Fuel Consumption (gallons)<sup>9</sup></b>
<b>Car<sup>1</sup></b>	9,360	12.67%	23.96	480
<b>Light-Duty Vehicle<sup>2</sup></b>	500	0.06%	22.04	524
<b>Light Truck/Van<sup>3</sup></b>	500	0.06%	17.40	683
<b>Delivery Truck<sup>4</sup></b>	1,250	1.69%	6.64	1,974
<b>Heavy Duty Trucks<sup>5</sup></b>	61,664	83.49%	5.29	12,889
<b>Other Trucks<sup>6</sup></b>	578	0.076%	N/A	N/A
<b>Total</b>	<b>73,852</b>	<b>100%</b>	<b>N/A</b>	<b>N/A</b>
<sup>1</sup> Employee Automobile as described in the TIS; <sup>2</sup> Outside Services as described in the TIS; <sup>3</sup> Other Materials/Services as described in the TIS; <sup>4</sup> Recycled Material as described in the TIS; <sup>5</sup> All 4- and 5-axle Trucks (including Ready Mix Concrete Trucks) as described in the TIS; <sup>6</sup> Oil Delivery, Propane Delivery, and diesel Fuel Delivery Trucks as described in the TIS; <sup>7</sup> Average fuel economy based on average 2016 U.S. vehicle fuel efficiency (mpg) from Table 4-11: Light Duty Vehicle, Short Wheel Base and Motorcycle Fuel Consumption and Travel; Table 4-12: Average Light Duty Vehicle, Long Wheel Base Fuel Consumption and Travel, and Table 4-13: Single-Unit 2-Axle 6-Tire or More Truck Fuel Consumption and Travel of the National Transportation Statistics.				

<sup>17</sup> San Joaquin Valley Model Improvement Program Freight Forecasting Models Table 32. Page 32. 2013. Prepared for the eight Regional Transportation Planning Agencies by Resource Systems Group, Inc. Accessed at: <https://rsginc.com/files/publications/SJV%20freight%20forecasting%20models%20documentation.pdf>

<sup>18</sup> U.S. Department of Energy. Alternative Fuels Data Center. Average Fuel Economy of Major Vehicle Categories <https://afdc.energy.gov/data/10310>



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<b>Table 3.6-5</b> <b>One-Way Distances Travelled by Heavy-Duty Trucks in San Joaquin Valley Counties</b>	
<b>County</b>	<b>Miles</b>
Fresno	121.5
Kern	124.0
Kings	30.9
Madera	30.9
Merced/Stanislaus/San Joaquin	41.1
Tulare	65.8
<i>Source: San Joaquin Valley Model Improvement Program Freight Forecasting Models Tables 19, 24, 26, 29, and 32.</i>	

The annual VMT for all vehicles types resulting from the Project are estimated at 3,510,522 (or approximately 14,042.08 per day based on 250 working days) resulting in an estimated annual fuel consumption of 14,243gallons of gasoline and 592,283 gallons of diesel. See **Table 3.6-6**.

<b>Table 3.6-6</b> <b>Estimated Operational Vehicle Fuel Consumption<sup>19</sup></b>					
<b>Vehicle Type</b>	<b>Distances in Round-trip miles</b>	<b>Number of Vehicles</b>	<b>Annual VMT<sup>7</sup></b>	<b>National Avg. Fuel Economy (miles/gallon)<sup>8</sup></b>	<b>Estimated Annual Fuel Consumption (gallons)<sup>9</sup></b>
<b>Car<sup>1</sup></b>	Travel w/i 30 mi. <sup>a</sup>	7,956	238,680	23.96	9,962 <sup>10</sup>
	68 miles to/from Porterville <sup>b</sup>	1,404 <sup>c</sup>	42,120		1,758 <sup>0</sup>
<b>Light-Duty Vehicle<sup>2</sup></b>	Travel w/i 30 mi. <sup>a</sup>	425 <sup>c</sup>	12,750	22.04	578 <sup>10</sup>
	68 miles to/from Porterville <sup>b</sup>	75 <sup>c</sup>	5,100		231 <sup>10</sup>
<b>Light Truck / Van<sup>3</sup></b>	Travel w/i 30 mi. <sup>a</sup>	150 <sup>d</sup>	4,500	17.40	608 <sup>10</sup>
	36 miles to Fresno Co. line	175 <sup>d</sup>	6,300		362 <sup>10</sup>
	74 miles to Kern Co. line	175 <sup>d</sup>	12,950		744 <sup>10</sup>
<b>Delivery Truck<sup>4</sup></b>	Travel w/i 30 mi. <sup>a</sup>	375 <sup>d</sup>	11,250	6.64	1,694 <sup>11</sup>
	36 miles to Fresno Co. line	437.5 <sup>d</sup>	15,750		2,372 <sup>11</sup>
	74 miles to Kern Co. line	437.5 <sup>d</sup>	32,375		4,876 <sup>11</sup>
<b>Heavy Duty Trucks<sup>5</sup></b>	Travel w/i 30 mi. <sup>a</sup>	19,174 <sup>d</sup>	575,220	5.29	108,737 <sup>11</sup>
	36 miles to Fresno Co. line	22,370 <sup>d</sup>	805,320		152,234 <sup>11</sup>
	74 miles to Kern Co. line	22,370 <sup>d</sup>	1,655,380		312,926 <sup>11</sup>
<b>Other Trucks<sup>6</sup></b>	Travel w/i 30 mi. <sup>a</sup>	315 <sup>d</sup>	9,480	5.29	1,792 <sup>11</sup>
	36 miles to Fresno Co. line	368 <sup>d</sup>	13,248		2,504 <sup>11</sup>
	74 miles to Kern Co. line	368 <sup>d</sup>	27,232		5,148 <sup>11</sup>
<b>Total</b>	Car and Light Truck travel w/i 30 mi.	8,381	251,430	23.96	10,494 <sup>10</sup>
	Car and Light Duty Vehicle travel to/from Porterville (68 mi.)	1,479	100,572		4,197 <sup>10</sup>

<sup>19</sup> U.S. Department of Energy. Alternative Fuels Data Center. Average Fuel Economy of Major Vehicle Categories  
<https://afdc.energy.gov/data/10310>



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**Table 3.6-6  
Estimated Operational Vehicle Fuel Consumption<sup>19</sup>**

Vehicle Type	Distances in Round-trip miles	Number of Vehicles	Annual VMT <sup>7</sup>	National Avg. Fuel Economy (miles/gallon) <sup>8</sup>	Estimated Annual Fuel Consumption (gallons) <sup>9</sup>	
					Gasoline	Diesel
	All Travel w/i 30 mi. <sup>a</sup>	28,395	851,850		11,148	112,223
	Travel to/from Porterville (68 mi.) <sup>7</sup>	1,479	100,572		1,989	N/A
	36 miles to Fresno Co.	23,350	840,600		362	157,110
	74 miles to Kern Co.	23,250	1,720,500		744	322,950
<b>GRAND TOTAL<sup>12</sup></b>	<b>ALL TRAVEL</b>	<b>76,574</b>	<b>3,510,522</b>	<b>N/A</b>	<b>14,243</b>	<b>592,283</b>

<sup>a</sup> Cities within approximately 15 miles include all cities in Tulare County, and Hanford and Corcoran in Kings County; <sup>b</sup> Porterville is approximately 34 miles east/southeast of the Project location; <sup>c</sup> 85% of population within Project site, 12.7% of population in Porterville. 2.3 % in foothills/mountain areas; <sup>d</sup> TIS distributes vehicles as 35% north on SR 99, 35% south on SR 99, 20 % east of SR 99, and 10 west of SR 995.

<sup>1</sup> Employee Automobile as described in the TIS; <sup>2</sup> Outside Services as described in the TIS; <sup>3</sup> Other Materials/Services as described in the TIS; <sup>4</sup> Recycled Material as described in the TIS; <sup>5</sup> All 4- and 5-axle Trucks (including Ready Mix Concrete Trucks) as described in the TIS; <sup>6</sup> Oil Delivery, Propane Delivery, and diesel Fuel Delivery Trucks as described in the TIS; <sup>7</sup> Only includes cars and light duty vehicles as it is uncertain how many other vehicle types would travel to/from Porterville. VMT is estimated by multiplying Distances X Vehicles resulting in miles (e.g., 30 miles X 150 vehicles = 4,500 vehicle miles travelled); Average fuel economy based on average 2016 U.S. vehicle fuel efficiency (mpg) from Table 4-11: Light Duty Vehicle, Short Wheel Base and Motorcycle Fuel Consumption and Travel; Table 4-12: Average Light Duty Vehicle, Long Wheel Base Fuel Consumption and Travel, and Table 4-13: Single-Unit 2-Axle 6-Tire or More Truck Fuel Consumption and Travel of the National Transportation Statistics; <sup>9</sup> VMT divided by National Average Fuel Economy; <sup>10</sup> Assumes gasoline as fuel; <sup>11</sup> Assumes diesel as fuel; <sup>12</sup> Grand Totals are not necessarily tabular in the column where it is shown.

## CEQA REQUIREMENTS AND ENERGY CONSERVATION STANDARDS

In addition to the recommended thresholds for environmental analysis provided in Appendix G of the CEQA Guidelines, Appendix F requires that an EIR disclose and discuss the potential impacts of a project on energy resources and conservation. An EIR's discussion of impacts on energy resources should provide analysis and discussion of the project's potential to result in the wasteful, inefficient, or irretrievable commitment of energy resources, with particular attention towards electrical, natural gas, and transportation fuel supplies. While no specific thresholds are provided by the CEQA Guidelines, Appendix F offers several recommendations for inclusion in an analysis of impacts on energy resources to determine whether a project would:

- Use large amounts of fuel or energy in an unnecessary, wasteful, or inefficient manner;
- Constrain local or regional energy supplies, affect peak and base periods of electrical or natural gas demand, require or result in the construction of new electrical generation and/or transmission facilities, or necessitate the expansion of existing facilities, the construction of which could cause significant environmental effects; or
- Conflict with existing energy standards, including standards for energy conservation.

Operation of the proposed Project would result in the demand for approximately 7,000 MWh/year of electricity, 403,000 therms/year of natural gas, 9,860 gallons/year of gasoline as vehicle fuel, and 570,754 gallons/year of diesel as vehicle fuel. The most recent energy demands reports are for 2018. Based on 2018 energy demands and capacity of service providers (in this case, Southern California Edison (SCE) and Southern California Gas (SoCal Gas)) for the Project area, estimated operational demand for electricity and natural gas as part of the Project would represent approximately 0.0015 percent of Tulare County's and 0.000083 percent of



SCE's total 2018 electricity demands. The Project would represent 0.0025 percent of Tulare County's and 0.000078 percent of SoCal Gas' total 2018 gas demands for the County. Further, as noted earlier, the Project would consume 9,860 gallons of gasoline fuel per year and 570,754 gallons of diesel fuel per year, representing approximately 0.000024 percent and 0.00042 percent; respectively, of the statewide vehicle fuel demand.

As shown earlier in **Table 3.6-1**, based on comparisons of the Project's energy demands with Tulare County's and SCE and SoCal Gas Service Areas demand and service capacity in total, the proposed Project is not expected to result in the use of a large amount of fuel or energy in an unnecessary, wasteful, or inefficient manner, nor would it affect regional supplies or peak/base periods of demand as the estimated energy demand is typical for a Project of this size, and would result in a negligible increase in regional energy demands. As such, the proposed Project would not necessitate the expansion of existing facilities or construction of new energy generation or transmission facilities beyond the onsite facilities proposed as part of the Project to serve the new development.

Benefits of the Project include greater conservation of electricity, natural gas, and transportation fuel through the implementation of proposed Project's asphalt and concrete recycling component. As indicated by the U.S. Department of Transportation, "Transportation vehicles and infrastructure are major sources of solid waste that can be recycled, combusted, or placed in landfills. The Asphalt Industry Association estimates that 182 million tons of used asphalt were removed from U.S. roads in 2017, of which 80 million tons were recycled as paving material, while the remaining 102 million tons were stockpiled for future recycling [Williams et al. 2018]. Recycled asphalt pavement as a percent of asphalt used to pave U.S. roads increased from 15 percent in 2009 to 20 percent in 2017. In addition, 1.4 million tons of asphalt shingle waste were recycled in hot and warm-mix asphalt mixtures."<sup>20</sup>

## IMPACT EVALUATION

### Would the project:

- a) **Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

#### Project Impact Analysis:

#### *Less Than Significant Impact*

As noted earlier, construction-related activities will be one-time, short-duration (approximately 90 weekday days), and temporary in nature; therefore, gasoline and diesel fuel use during construction-related activities have not been estimated. Typical construction equipment usage will not occur for this Project as there will be minimal land shaping as the site is flat (as such, grading will be kept to a minimum), no new construction will occur as

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<sup>20</sup> U.S. Department of Transportation, Office of the Secretary of Transportation, Bureau of Transportation Statistics, *Transportation Statistics Annual Report*. Page 7-20. Accessed in August 2019 at: <https://www.bts.gov/sites/bts.dot.gov/files/docs/browse-statistical-products-and-data/transportation-statistics-annual-reports/TSAR-Full-2018-Web-Final.pdf>.



the existing structure will be converted into office space, truck parking areas will require minimal grading and will consists of new and decomposed gravel, a small parking area to accommodate 10-20 employee vehicles will be paved near the office, storage pile areas will not require any land-shaping, and construction of an appropriately sized engineered storm water basin. The asphalt and concrete batch plants (powered by electricity) will be assembled rather than constructed; a portable crusher will be brought on site as needed (approximately 5-10 times per year, operates on diesel fuel). Therefore, construction-related energy use will result in a ***Less Than Significant Impact***.

Operation of the proposed Project would result in the demand for approximately 7,000 MWh/yr. of electricity; 9,860 gallons of gasoline fuel per year; and 570,754 gallons of diesel fuel per year. Based on existing energy demands and capacity of service providers, estimated operational demand for electricity as part of the Project would represent 0.0015 percent of Tulare County's and 0.000083 percent of SCE's total 2018 electricity demands. As noted earlier, the Project will use liquid propane gas as its gas source. However, if the Project were to receive natural gas from the nearest provider (SoCal Gas) its estimated 403,000 therms/yr. of natural gas would account for 0.0025 percent of Tulare County's and 0.000078 percent of SoCal Gas' total 2018 gas demands for its natural gas service area.

Lastly, also as noted earlier, of all VMT noted in **Table 3.6-6**, approximately 87.5% of the Project's VMT is from heavy-duty trucks. Further, according to the Forecasting Models document, Tulare County's heavy-duty truck travel distances are nearly twice that of Madera and Kings Counties, 50% greater than Merced, Stanislaus, and San Joaquin Counties, but is approximately 50% less than Fresno and Kern Counties. As such, the Project, is generally in the "middle ground" when compared to other San Joaquin Valley counties regarding VMT for heavy-duty trucks as shown in **Table 3.6-5**. As such, based on VMT, the Project would consume 9,860 gallons of gasoline fuel per year and 570,754 gallons of diesel fuel per year, representing approximately 0.000024 percent and 0.00042 percent; respectively, of the statewide vehicle fuel demand. The Project would provide a source of building materials (in this case asphalt and concrete) that are vital to construction-related activities. Its relatively central location in the San Joaquin Valley, proximity to SRs 99 and 198 (and connectivity to other local and regional transportation corridors), its less than 1% use of electricity energy demand from SCE, its potential to use less than 1% of natural gas demand from SoCal Gas, its less than 1% use of gasoline and diesel fuels of the entire State's supply, and recycling of asphalt and concrete demonstrate that the Project will not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation is necessary; nor will it conflict with or obstruct a state or local plan for renewable energy or energy efficiency. As such, the Project would result in a ***Less Than Significant Impact*** to these resources.

Cumulative Impact Analysis:

***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County, the 8-County area of the San Joaquin Valley, and the Southern California Edison and Southern California Gas companies' service areas. The proposed Project would incrementally contribute to adverse



impacts on energy resource demand and conservation when considering the cumulative impact of concurrently planned projects; however, like the proposed Project, discretionary actions requiring agency approval are required to comply with local, regional, state, and federal policies designed to reduce wasteful energy consumption, and improve overall energy conservation and sustainability. Therefore, it is not anticipated that the Project's contribution to cumulative impacts generated with projects provided in Chapter 4 Summary of Cumulative Impacts would result in a significantly considerable wasteful use of energy resources, such that the Project, and other cumulative projects, would have a cumulative effect on energy conservation. Cumulative impacts as of a result of the Project would be ***Less Than Significant***.

Mitigation: ***None Required***

Conclusion: ***Less Than Significant Impact***

**b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

Project Impact Analysis: ***Less Than Significant Impact***

See Item a), above.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County, the 8-County area of the San Joaquin Valley, and the Southern California Edison and Southern California Gas companies' service areas.

Mitigation: ***None Required***

See Item a), above.

Conclusion: ***Less Than Significant Impact***

See Item a), above.



## DEFINITIONS

British Thermal Unit                      British Thermal Unit (BTU) is the amount of energy that is required to raise the temperature of one pound of water by one degree Fahrenheit. As points of reference, the approximate amount of energy contained in a gallon of gasoline, a cubic foot of natural gas, and a kilowatt hour (kWhr) of electricity are 123,000 BTUs, 1,000 BTUs, and 3,400 BTUs, respectively. Natural gas usage is expressed in therms. A therm is equal to 100,000 BTU.

## ACRONYMS

AB	Assembly Bill (State of California Assembly)
CARB or ARB	California Air Resources Board
BTU	British Thermal Unit
CALGreen	California Green Buildings Standards Code
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CPUC	California Public Utilities Commission
DEIR	Draft Environmental Impact Report
EIR	Environmental Impact Report
GHG	Greenhouse gas
GWh	Gigawatt hour
kWh	Kilowatt hour
OPR	Office of Planning and Research
MWh	Megawatt hour
N/A	Not Applicable
SB	Senate Bill (State of California Senate)
SCE	Southern California Edison Company
SoCal Gas	Southern California Gas Company
U.S. DOT	United States Department of Transportation
VMT	Vehicle Miles Travelled
w/i	within

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# Geology and Soils

## Chapter 3.7

### SUMMARY OF FINDINGS

The proposed Project will result in ***Less Than Significant Impacts*** related to Geology and Soils, through project design features and implementation of Mitigation Measures. The “*Geology and Soils Report for Proposed Concrete and Asphalt Batch Plant*” (Geo/Soils report) was prepared by Mason GeoScience, which is included in Appendix “D”. This information, and additional analysis in the resource discussion item, are used as the basis for determining that this Project will result in a less than significant impact to this resource. A detailed review of potential impacts is provided in the analysis below.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts to Geology and Soils. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in 15126.2(a), “[a]n EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions



(e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.”<sup>1</sup>

The “Environmental Setting” provides a description of the Geology and Soils in the County. The “Regulatory Setting” provides a description of applicable Federal, State and Local regulatory policies that were developed in part from information contained in the Tulare County 2030 General Plan, the Tulare County General Plan Background Report and/or the Tulare County General Plan Revised DEIR incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the proposed Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

### Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item as follows:

- Directly or indirectly cause potential substantial adverse effects, including risk of loss, injury, or death involving rupture of known earthquake fault, strong seismic shaking, seismic related ground failure (including liquefaction) or landslides.
- Result in substantial soil erosion or loss of topsoil.
- Be located on a geologic unit or soil that is unstable or become unstable as a result of the and potential result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial direct or indirect risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available.
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

## **ENVIRONMENTAL SETTING**

“Seismicity varies greatly between the two major geologic provinces represented in Tulare County. The Central Valley is an area of relatively low tectonic activity bordered by mountain ranges on either side. The Sierra Nevada Mountains, partially located within Tulare County, are the result of movement of tectonic plates which resulted in the creation of the mountain range. The Coast Range on the west side of the Central Valley is also a result of these forces, and the continued uplifting of Pacific and North American tectonic plates continues to elevate these ranges. The remaining seismic hazards in Tulare County generally result from movement along faults associated with the creation of these ranges.”<sup>2</sup>

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<sup>1</sup> CEQA Guidelines Section 15126.2.

<sup>2</sup> Tulare County General Plan 2030 Update. *Background Report*. Page 8-5.



“Earthquakes are typically measured in terms of magnitude and intensity. The most commonly known measurement is the Richter scale, a logarithmic scale which measures the strength of a quake. The Modified Mercalli Intensity Scale measures the intensity of an earthquake as a function of the following factors:

- Magnitude and location of the epicenter;
- Geologic characteristics;
- Groundwater characteristics;
- Duration and characteristic of the ground motion;
- Structural characteristics of a building.”<sup>3</sup>

“Faults are the indications of past seismic activity. It is assumed that those that have been active most recently are the most likely to be active in the future. Recent seismic activity is measured in geologic terms. Geologically recent is defined as having occurred within the last two million years (the Quaternary Period). All faults believed to have been active during Quaternary time are considered “potentially active.”<sup>4</sup>

“Settlement can occur in poorly consolidated soils during groundshaking. During settlement, the soil materials are physically rearranged by the shaking and result in reduced stabling alignment of the individual minerals. Settlement of sufficient magnitude to cause significant structural damage is normally associated with rapidly deposited alluvial soils, or improperly founded or poorly compacted fill. These areas are known to undergo extensive settling with the addition of irrigation water, but evidence due to groundshaking is not available. Fluctuating groundwater levels also may have changed the local soil characteristics. Sufficient subsurface data is lacking to conclude that settlement would occur during a large earthquake; however, the data is sufficient to indicate that the potential exists in Tulare County.”<sup>5</sup>

“Liquefaction is a process whereby soil is temporarily transformed to a fluid form during intense and prolonged groundshaking. Areas most prone to liquefaction are those that are water saturated (e.g., where the water table is less than 30 feet below the surface) and consist of relatively uniform sands that are low to medium density. In addition to necessary soil conditions, the ground acceleration and duration of the earthquake must be of sufficient energy to induce liquefaction. Scientific studies have shown that the ground acceleration must approach 0.3g before liquefaction occurs in a sandy soil with relative densities typical of the San Joaquin alluvial deposits. Liquefaction during major earthquakes has caused severe damage to structures on level ground as a result of settling, tilting, or floating. Such damage occurred in San Francisco on bay-filled areas during the 1989 Loma Prieta earthquake, even though the epicenter was several miles away. If liquefaction occurs in or under a sloping soil mass, the entire mass may flow toward a lower elevation, such as that which occurred along the coastline near Seward, Alaska during the 1964 earthquake. Also of particular concern in terms of developed and newly developing areas are fill areas that have been poorly compacted.”<sup>6</sup>

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<sup>3</sup> Ibid.

<sup>4</sup> Tulare County General Plan 2030 Update. *Background Report*. 8-5.

<sup>5</sup> Ibid. Page 8-9.

<sup>6</sup> Op. Cit.



### ***Earthquake Hazards***

“Groundshaking is the primary seismic hazard in Tulare County because of the county’s seismic setting and its record of historical activity. Thus, emphasis focuses on the analysis of expected levels of groundshaking, which is directly related to the magnitude of a quake and the distance from a quake’s epicenter. Magnitude is a measure of the amount of energy released in an earthquake, with higher magnitudes causing increased groundshaking over longer periods of time, thereby affecting a larger area. Groundshaking intensity, which is often a more useful measure of earthquake effects than magnitude, is a qualitative measure of the effects felt by population. The valley portion of Tulare County is located on alluvial deposits, which tend to experience greater groundshaking intensities than areas located on hard rock. Therefore, structures located in the valley will tend to suffer greater damage from groundshaking than those located in the foothill and mountain areas. However, existing alluvium valleys and weathered or decomposed zones are scattered throughout the mountainous portions of the county which could also experience stronger intensities than the surrounding solid rock areas. The geologic characteristics of an area can therefore be a greater hazard than its distance to the epicenter of the quake.”<sup>7</sup>

“There are three faults within the region that have been, and will be, principal sources of potential seismic activity within Tulare County. These faults are described below:

- **San Andreas Fault.** The San Andreas Fault is located approximately 40 miles west of the Tulare County boundary. This fault has a long history of activity, and is thus the primary focus in determining seismic activity within the county. Seismic activity along the fault varies along its span from the Gulf of California to Cape Mendocino. Just west to Tulare County lies the “Central California Active Area,” where many earthquakes have originated.
- **Owens Valley Fault Group.** The Owens Valley Fault Group is a complex system containing both active and potentially active faults, located on the eastern base of the Sierra Nevada Mountains. The Group is located within Tulare and Inyo Counties and has historically been the source of seismic activity within Tulare County.
- **Clovis Fault.** The Clovis Fault is considered to be active within the Quaternary Period (within the past two million years), although there is no historic evidence of its activity, and is therefore classified as “potentially active.” This fault lies approximately six miles south of the Madera County boundary in Fresno County. Activity along this fault could potentially generate more seismic activity in Tulare County than the San Andreas or Owens Valley fault systems. In particular, a strong earthquake on the Fault could affect northern Tulare County. However, because of the lack of historic activity along the Clovis Fault, inadequate evidence exists for assessing maximum earthquake impacts.”<sup>8</sup>

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<sup>7</sup> Op. Cit. 8-7.

<sup>8</sup> Op. Cit. 8-6 to 8-7.



“Older buildings constructed before current building codes were in effect, and even newer buildings constructed before earthquake resistance provisions were included in the current building codes, are most likely to suffer damage in an earthquake. Most of Tulare County’s buildings are no more than one or two stories in height and are of wood frame construction, which is considered the most structurally resistant to earthquake damage. Older masonry buildings (without earthquake-resistance reinforcement) are the most susceptible to structural failure, which causes the greatest loss of life. The State of California has identified unreinforced masonry buildings as a safety issue during earthquakes. In high risk areas (Bay Area) inventories and programs to mitigate this issue are required. Because Tulare County is not a high risk area, state law only recommends that programs to retrofit URMs are adopted by jurisdictions.”<sup>9</sup>

### ***Liquefaction***

“The San Joaquin Valley portion of Tulare County is located on alluvial deposits, which tend to experience greater groundshaking intensities than areas located on hard rock. Therefore, structures located in the valley will tend to suffer greater damage from groundshaking than those located in the foothill and mountain areas. However, existing alluvium valleys and weathered or decomposed zones are scattered throughout the mountainous portions of the county which could also experience stronger intensities than the surrounding solid rock areas. The geologic characteristics of an area can therefore be a greater hazard than its distance to the epicenter of the quake.”<sup>10</sup>

“No specific countywide assessments to identify liquefaction hazards have been performed in Tulare County. Areas where groundwater is less than 30 feet below the surface occur primarily in the valley. However, soil types in the area are not conducive to liquefaction because they are either too coarse or too high in clay content. Areas subject to 0.3g acceleration or greater are located in a small section of the Sierra Nevada Mountains along the Tulare-Inyo County boundary. However, the depth to groundwater in such areas is greater than in the valley, which would minimize liquefaction potential as well. Detailed geotechnical engineering investigations would be necessary to more accurately evaluate liquefaction potential in specific areas and to identify and map the areal extent of locations subject to liquefaction.”<sup>11</sup>

### ***Landslides***

“Landslides are a primary geologic hazard and are influenced by four factors:

- Strength of rock and resistance to failure, which is a function of rock type (or geologic formation);
- Geologic structure or orientation of a surface along which slippage could occur;
- Water (can add weight to a potentially unstable mass or influence strength of a potential failure surface); and,

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<sup>9</sup> Op. Cit. Page 8-8.

<sup>10</sup> Op. Cit.8-7.

<sup>11</sup> Op. Cit. 8-9.



- Topography (amount of slope in combination with gravitation forces).”<sup>12</sup>

### ***Soils in the proposed Project area***

The 20-acre proposed Project site is composed of three different soil types, as depicted in **Table 3.7-1**.

<b>Table 3.7-1 Area of Interest (AOI) Soils<sup>13</sup></b>				
<b>Map Unit Symbol</b>	<b>Soil Type</b>	<b>Acreage</b>	<b>% of AOI</b>	<b>Characteristics</b>
101	Akers-Akers, saline-sodic complex, 0 to 2 % slopes	95.9	59.7	0-2% slopes, alluvium derived from granitic rock sources, well drained, no frequency of ponding, high available water storage
130	Nord fine sandy loam, 0 to 2 % slopes	46.8	29.2	0-2% slopes, alluvium derived from mixed sources, well drained, very rare frequency of ponding, low ability to store water
137	Tagus loam, 0 to 2 % slopes	19.7	11.1	0-2% slopes, alluvium derived from granitic rock sources, well drained, very rare frequency of ponding, moderate ability to store water
Totals of Area of Interest		160.7	100	

### ***Paleontological Resources***

#### **Overview**

“Paleontological resources comprise fossils – the remains or traces of once-living organisms preserved in sedimentary deposits – together with the geologic context in which they occur. Sedimentary deposits include unconsolidated or semi-consolidated “soils” or sedimentary rocks. Most fossil remains are the preserved hard parts of plants or animals, and include bones and/or teeth of once-living vertebrate animals, shells or body impressions of invertebrate animals, and impressions or carbonized or mineralized parts of plants (e.g. “petrified wood”). Trace fossils include preserved footprints, trackways, and burrows of prehistoric animals and root marks created by plants.

Fossils are scientifically important as they provide the only available direct evidence of the anatomy, geographic distribution, and paleoecology of organisms of the past. Scientific studies based on fossils and comparisons between them continue to refine details of the basic history of life. In conjunction with physical geologic investigations, the use of fossils as indicators of geologic time and ancient environments also contributes to understanding of the physical history of the earth, the distribution of mineral resources, dynamics of earth processes, and past climatic changes.

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<sup>12</sup> Op. Cit. 8-10.

<sup>13</sup> “*Geology and Soils Report for Proposed Concrete and Asphalt Batch Plant*” (Geo/Soils report), Appendix A, “Custom Soil Resource Report for Tulare County Western Part, California, August 2018.” Pages 11 and 13 thru 16. Prepared by Mason GeoScience, which is included in Appendix “D” of this DEIR.



## Potential for Fossils to Occur within Project Area

### Geologic Indicators

As shown in Figure 3 of the Geo/Soils report, the project site is entirely underlain by Quaternary alluvium, including primarily alluvial fan deposits with a small area of basin deposits in the southeast corner. The Quaternary period includes the older Pleistocene Epoch (about 2.6 million to 10,000 years ago) and the Holocene (Recent) Epoch, which includes approximately the last 10,000 years. The Pleistocene Epoch is informally termed the Ice Age, and this is the depositional period which yields vertebrate fossils, and therefore deposits from this period are considered highly sensitive for paleontological resources. The Holocene deposits, which comprise more recent layers that were deposited on top of the Pleistocene material, yield few if any vertebrate fossils, and thus are considered to have a low sensitivity for paleontological resources. However, since Holocene strata have some potential to preserve fossil materials, there is always a possibility of fossil discoveries in these younger materials.

In the eastern San Joaquin Valley, the thickness of the Holocene deposits overlying the Pleistocene deposits generally increases with distance westward from the lower foothills of the Sierra. While the depth to sensitive Pleistocene strata at the project site has not been determined, two recent EIRs in the immediate project vicinity indicate that the Pleistocene strata are unlikely to occur in the upper 5-6 feet of soil material. The first EIR, on the SR-99 Tulare to Goshen 6-Lane widening project, determined that there was a low probability of encountering fossils in the upper 5 feet (Caltrans 2008, p. 60). The second EIR, on the Avenue 280 Road Widening Project EIR, determined that paleontological sensitivity in the project vicinity was presumed low because the depth to sensitive Pleistocene strata was presumed to be greater than the excavation depths of up to 6 feet (Tulare County 2010a, Figure 3-6.1).

### Unpublished Museum Locality Records

There are no records or reports of known vertebrate fossil localities in the project vicinity, with the nearest vertebrate fossil discoveries occurring near Exeter at least 10 miles east of the project site, where there are surface exposures of Pleistocene-era alluvium. The University of California Museum of Paleontology (UCMP) database includes 11 records for vertebrate materials from Pleistocene deposits in Tulare County. These include examples of horse, mammoth, camel, and elephant, with the Exeter records both consisting of horse fossils (Tulare County 2010a, p. 3.6-12).

### Conclusions on Paleontological Potential

Previous studies of paleontological resources in the project vicinity indicated the potential presence of significant fossils within the Pleistocene-era strata beneath the project site. While the depth to the paleontologically sensitive Pleistocene strata at the site is undetermined, the absence of fossil records from the site vicinity, and the conclusions of previous studies on adjacent lands indicate that the Pleistocene strata likely occurs at depths of 5 feet or greater at the



project site. The younger Holocene alluvium near the ground surface is less than 10,000 years old and, while it is considered to have low sensitivity for paleontological resources, it is always possible that fossils may occur in these near-surface materials.”<sup>14</sup>

## **REGULATORY SETTING**

### ***Federal Agencies & Regulations***

None that apply to the proposed Project.

### ***State Agencies & Regulations***

#### **Seismic Hazards Mapping Act**

“Under the Seismic Hazards Mapping Act, the State Geologist is responsible for identifying and mapping seismic hazards zones as part of the California Geologic Survey (CGS). The CGS provides zoning maps of non-surface rupture earthquake hazards (including liquefaction and seismically induced landslides) to local governments for planning purposes. These maps are intended to protect the public from the risks associated with strong ground shaking, liquefaction, landslides or other ground failure, and other hazards caused by earthquakes. For projects within seismic hazard zones, the Seismic Hazards Mapping Act requires developers to conduct geological investigations and incorporate appropriate mitigation measures into project designs before building permits are issued.”<sup>15</sup>

“The nearest faults and fault systems were reviewed in closest proximity to the site. The California Geological Survey Fault Activity Map is viewable on the worldwide web at: [maps.conservation.ca.gov/cgs/fam/](https://maps.conservation.ca.gov/cgs/fam/) and a portion of the map is shown on Figure 4A [of the Geo/Soils report]. The map shows the locations of known faults and indicates the latest age when displacements took place, according to available data. The displacements may have been associated with earthquakes or may have been the result of gradual creep along the fault surface (CGS, 2010).”<sup>16</sup>

#### **California Building Code**

“The California Building Code is another name for the body of regulations known as the California Code of Regulations (C.C.R.), Title 24, Part 2, which is a portion of the California Building Standards Code. Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards.”<sup>17</sup>

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<sup>14</sup> “*Sequoia Gateway Commerce Park Draft EIR September 2018*”. Pages 3.5-3 and 3.5-4.

<sup>15</sup> Tulare County General Plan 2030 Update, Background Report. Page 8-10.

<sup>16</sup> “*Geology and Soils Report for Proposed Concrete and Asphalt Batch Plant*” (Geo/Soils report). Page 10. Prepared by Mason GeoScience, which is included in Appendix “D” of this DEIR.

<sup>17</sup> Ibid, Page 8-3.



### Alquist-Priolo Earthquake Fault Zoning Act

“The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act), signed into law December 1972, requires the delineation of zones along active faults in California. The purpose of the Alquist-Priolo Act is to regulate development on or near active fault traces to reduce the hazards associated with fault rupture and to prohibit the location of most structures for human occupancy across these traces.”<sup>18</sup>

### CEQA Guidelines: Paleontological Resources

Public Resources Code Section 5097.5 prohibits excavation or removal of any “vertebrate paleontological site...or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands.”

### ***Local Policy & Regulations***

#### Tulare County General Plan Policies

The General Plan has a number of policies that apply to projects within Tulare County. General Plan policies that relate to the proposed Project are listed below.

**ERM-7.2 Soil Productivity** - The County shall encourage landowners to participate in programs that reduce soil erosion and increase soil productivity. To this end, the County shall promote coordination between the Natural Resources Conservation Service, Resource Conservation Districts, UC Cooperative Extension, and other similar agencies and organizations.

**HS-2.1 Continued Evaluation of Earthquake Risks** - The County shall continue to evaluate areas to determine levels of earthquake risk.

**HS-2.4 Structure Siting** - The County shall permit development on soils sensitive to seismic activity permitted only after adequate site analysis, including appropriate siting, design of structure, and foundation integrity.

**HS-2.7 Subsidence** - The County shall confirm that development is not located in any known areas of active subsidence. If urban development may be located in such an area, a special safety study will be prepared and needed safety measures implemented. The County shall also request that developments provide evidence that its long-term use of ground water resources, where applicable, will not result in notable subsidence attributed to the new extraction of groundwater resources for use by the development.

**HS-2.8 Alquist-Priolo Act Compliance** - The County shall not permit any structure for human occupancy to be placed within designated Earthquake Fault Zones (pursuant to and as

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<sup>18</sup> Ibid. 8-3.



determined by the Alquist-Priolo Earthquake Fault Zoning Act; Public Resource code, Chapter 7.5) unless the specific provision of the Act and Title 14 of the California Code of Regulations have been satisfied.

## IMPACT EVALUATION

### Would the project:

- a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
- i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

#### Project Impact Analysis:

#### *Less Than Significant Impact*

No substantial faults are known to traverse Tulare County according to the Alquist-Priolo Earthquake Fault Zoning Maps and the State of California Department of Conservation.<sup>19</sup> The nearest major fault line, which lies outside of Tulare County, is the San Andreas fault zones; well over 50 miles southwest of the proposed Project site. According to the Five County Seismic Safety Element (FCSSE), Tulare County is located in the V-1 zone. This zone includes most of the eastern San Joaquin Valley, and is characterized by a relatively thin section of sedimentary rock overlying a granitic basement. Amplification of shaking that would affect low to medium-rise structures is relatively high, but the distance of the faults that are expected sources of the shaking is sufficiently great that the effects should be minimal. The requirements of Zone II of the Uniform Building Code should be adequate for normal facilities.<sup>20</sup> Further, the Geo/Soils reports (see Appendix “D”) notes, “As indicated on Figure 4 [of the Geo/Soils report], no Alquist-Priolo faults cross through the site. The nearest Holocene Active faults are the Pond fault 40 miles south and Nunez fault 60 miles west of the site. The Kern Canyon fault zone to the east, San Andreas Fault zone to the west, and Owens Valley fault zone to the east are the nearest faults with potential for significant sources of ground movement. However, due to the distance from these zones, site response from movement along the fault zones is estimated to be minimal and less than significant.”<sup>21</sup> Therefore, any impacts resulting from the rupture of a known earthquake fault would be *Less Than Significant*.

#### ii) **Strong seismic ground shaking?**

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<sup>19</sup> State of California Department of Conservation, Alquist-Priolo Earthquake Fault Zone Maps, <http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm>. Accessed March 2019.

<sup>20</sup> Five County Seismic Safety Element. Summary & Policy Recommendations II 3 and 15.

<sup>21</sup> Geo/Soils report. Page 23. Prepared by Mason GeoScience and is included in Appendix “D” of this DEIR.



Project Impact Analysis:

***Less Than Significant Impact***

Tulare County is characterized as Severity Zone “Nil” and “Low” for groundshaking events.<sup>22</sup> Deaggregation of the hazard was performed by using the USGS Interactive Deaggregation website and it was found that all faults within a 20 mile radius are quaternary faults between the ages of 750,000 and 1.6 million years old.<sup>23</sup> Quaternary faults are defined as those faults that have been recognized at the surface and which have evidence of movement in the past 1.6 million years, which is the duration of the Quaternary Period.<sup>24</sup> “The site is not located within areas of strong seismic shaking. The site does not lie within a California Geological Service Earthquake Zone of Required Investigation. Further, the peak ground acceleration for the site was calculated as 0.260g, which is considered relatively low. Figure 5 [in the Geo/Soils report] shows a low potential for earthquake shaking...”<sup>25</sup> Due to the distance and types of faults in the proposed Project vicinity, strong ground shaking is unlikely. Therefore, any impact would be ***Less Than Significant***.

**iii) Seismic-related ground failure, including liquefaction?**

Project Impact Analysis:

***Less Than Significant Impact***

The proposed Project area is not located within an area mapped to have a potential for soil liquefaction. Liquefaction in soils and sediments occurs during earthquake events, when soil material is transformed from a solid state to a liquid state, generated by an increase in pressure between pore space and soil particles. Earthquake induced liquefaction typically occurs in low-lying areas with soils or sediments composed of unconsolidated, saturated, clay-free sands and silts, but it can also occur in dry, granular soils or saturated soils with partial clay content. As indicated in the Geo/Soils report, “The site is not located in an area mapped by the California Geological Survey as having liquefaction potential. One of the criteria for liquefaction is saturated soils. Groundwater was measured at 127.36- feet below ground surface, therefore, potential for liquefaction is unlikely and less than significant. The site is not located within the vicinity of oil and gas production and local ground settlement from oil and gas production is not expected to occur.”<sup>26</sup> As such, there would be ***Less Than Significant Impact*** caused by seismic-related ground failure, including liquefaction.

**iv) Landslides?**

Project Impact Analysis:

***No Impact***

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<sup>22</sup> Tulare County General Plan 2030 Update, *Part 1-Goals and Policies Report*. Page 253.

<sup>23</sup> USGS, *Earthquake Hazards Program: Custom Mapping & Analysis Tools*, <https://earthquake.usgs.gov/learn/glossary/?term=Quaternary>. Accessed March, 2019.

<sup>24</sup> USGS, *Earthquake Hazards Program: Gregationlossary*, <http://earthquake.usgs.gov/hazards/qfaults/glossary.php#Q>. Accessed September 2019.

<sup>25</sup> Geo/Soils report. Page 23. Prepared by Mason GeoScience and is included in Appendix “D” of this DEIR.

<sup>26</sup> Ibid.



Landslides are not a significant threat as the topography in the proposed Project area is relatively flat. No geologic landforms exist on or near the site that would result in a landslide event. As indicated in the Geo/Soils report, “The site is located on relatively flat terrain at 0.1% slope and approximately 15 miles from the nearest hilly terrain to the west. The CGS Information Warehouse Landslide Inventory Map indicates the nearest known landslides are within approximately 65 miles east and 110 miles west of the site. Based on the topography of the site, gravity induced movement is unlikely therefore potential for landslides is no impact.”<sup>27</sup> Therefore, the proposed Project would result in ***No Impact***.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

With ***Less Than Significant*** Project-specific impacts, a ***Less Than Significant Cumulative Impact*** will also occur.

Mitigation: ***None Required***

Conclusion: ***Less Than Significant Impact***

As noted earlier, implementation of the proposed Project will not cause a significant impact to this Checklist Item. ***Less Than Significant Cumulative Impacts*** are anticipated without mitigation.

**b) Result in substantial soil erosion or the loss of topsoil?**

Project Impact Analysis: ***Less Than Significant Impact***

“The site is located on relatively flat topography and there are no major waterways adjacent to the site. Surface water is utilized and included in part by local and regional drainage for agriculture managed year-round by farming operations. The NRCS soil types at the site indicate the soil is well drained with low to negligible runoff.

The Clean Water Act and associated federal regulations (Title 40 of the Code of Federal Regulations [CFR] 123.25(a)(9), 122.26(a), 122.26(b)(14)(x) and 122.26(b)(15)) require nearly all construction site operators engaged in clearing, grading, and excavating activities that disturb one acre or more, including smaller sites in a larger common plan of development or sale, to obtain coverage under a National Pollutant Discharge Elimination System (NPDES) permit for their stormwater discharges (EPA, 2017). In addition, the

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<sup>27</sup> Op. Cit. 23 and 24.



California State Water Resources Control Board adopted the new state Construction General Permit, Order Number 2009-0009-DWQ that covers any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or greater than one acre. The General Permit requires a Qualified SWPPP Practitioner to oversee implementation of the BMPs required to comply with the General Permit. (General Permit, 2009).

A Stormwater Pollution Prevention Plan (SWPPP) will be required for the project. The SWPPP will provide best management practices for surface water management and sediment and erosion control. Based on this information, the project is anticipated to have less than significant impacts.”<sup>28</sup> As such, the Project would result in a ***Less Than Significant Impact***. No mitigation is required.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

The proposed Project site is not located on slope or adjacent to a designated waterway. The proposed Project also does not involve changes that will affect off-site hillsides or designated waterways. Therefore, a ***Less Than Significant Impact*** related to this Checklist Item will occur.

Mitigation: ***None required***

Conclusion: ***Less Than Significant Impact***

Implementation of the proposed Project will not cause a significant impact, potential Project-specific impacts related to this Checklist Item. With a ***Less Than Significant*** Project-specific Impact, a ***Less Than Significant Cumulative Impact*** related to this Checklist Item will occur.

- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**

Project Impact Analysis: ***Less Than Significant Impact***

“The project is located on the distal end of the Kaweah Alluvial Fan and the surface soils are listed by NRCS as fan remnant soils. The depositional environment of the alluvial and

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<sup>28</sup> Op. Cit. 24.



fluvial fan sediments are such that hydrocompaction is not expected to occur; especially since the site has experienced numerous years' worth of wetting and drying cycles by irrigation activities. The project will be located on regionally level topography and is not expected to contribute excessive amounts of water. The project is not expected to mine excessive amounts of groundwater. Therefore, the project is expected to have less than significant impact."<sup>29</sup> As such, the Project would result in a ***Less Than Significant Impact***.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

Engineered soil compaction will only occur in areas where development will occur, and as such, a ***Less Than Significant Cumulative Impact*** related to this Checklist Item will occur.

Mitigation: ***None required***

Conclusion: ***Less Than Significant Impact***

As noted earlier, the Project-specific or Cumulative impacts related to this Checklist Item will result in a ***Less Than Significant Impact***.

**d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?**

Project Impact Analysis: ***No Impact***

"Expansive soils are not known to occur near or around the project site. The nearest region of extensive expansive soils are in the Porterville area. Expansive soils are characteristic of soils with an expansion index greater than 20, such as montmorillonite clay. Soils with an expansion index less than 20 are considered very low. According the NRCS, site soils are characterized as sandy loam and loam. These soils are considered with very low shrink-swell potential, therefore the site soils are not considered expansive and are a less than significant impact."<sup>30</sup> Compliance with the County's adopted building code will result in ***No Project Impact***.

Cumulative Impact Analysis: ***No Impact***

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<sup>29</sup> Op Cit.

<sup>30</sup> Op. Cit.



The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

The proposed Project site is not located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994). As such, the proposed Project will not create a risk to life or property related to this Checklist Item throughout any stage of the Project's life span. Therefore, ***No Cumulative Impacts*** will occur.

Mitigation Measures: ***None required***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.

**e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**

Project Impact Analysis: ***No Impact***

"The site contains an existing onsite wastewater treatment system repaired in January 1978. The system contains a concrete lined four foot diameter by 30 foot deep seepage pit located approximately 200 feet from the onsite water well. The septic system was utilized for on-site use. The on-site office is currently vacant and it is unknown how long the septic system has been out of service.

Onsite wastewater systems in the area are served by private septic systems. The City of Visalia Boundary is located on the north side of Avenue 280, north of the site. There are no city sewer or stormwater conveyance structures near the site. Figure 9 [in the Geo/Soils report] shows the City of Visalia sewer and stormwater mains.

On April 5, 2018, the State Water Resources Control Board (SWRCB) approved the Local Agency Management Program (LAMP) for Tulare County. The Central Valley Regional Water Quality Control Board approved Resolution R5-2018-0009 applies to the Local Agency Management Program (LAMP) for the Tulare County Resource Management Agency and Tulare County Environmental Health Division.

The LAMP provides a new regulatory framework for the permitting of On-site Wastewater Treatment Systems (OWTS). The Tulare County Environmental Health Services Division (TCEHSD) prepared a document to advise local OWTS designers and other stakeholders of some of the major changes in the LAMP as follows (Tulare County, 2018).



The SWRCB adopted the final version of the Water Quality Control Policy for Siting, Design, Operation and Maintenance of OWTS in May 2013. Pursuant to Water Code Section 13291 (b)(3), the adopted policy describes requirements authorizing a qualified local agency to implement the adopted policy. The LAMP policies are developed by the local agencies based on local conditions. Approval of Tulare County's LAMP by the SWRCB allows the LAMP to become the standard by which the County will regulate OWTS. This approach allows for greater flexibility at the local level, rather than a "one size fits all" approach outlined by the State.

The LAMP covers the installation of new & replacement OWTS, as well as repair systems for existing OWTS. The LAMP is not intended to cover OWTS that have the following characteristics.

- Existing OWTS that are functioning normally.
- Proposed OWTS that will have design waste flow of greater than 3,500 gallons per day.
- OWTS with anticipated high amounts of fats, oils & grease (FOG), or OWTS with anticipated high values for Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS).
- OWTS that will require nitrogen reduction to mitigate certain limiting conditions.
- OWTS with supplemental treatment systems

When the above listed special conditions apply to a proposed/replacement OWTS, the application for the OWTS may be referred to the SWRCB for review and/or permitting.

The current operational function of the OWTS is unknown. If the current system is functioning normally and does not meet any of the other four characteristics outlined in bullet points above, it will not be required to fall under the conditions of the Tulare County LAMP and should be allowed for use on conditions that it is fully functional and can handle design flows for proposed operations. If the on-site OWTS is not fully functional and meets any of the other four characteristics outlined in bullet points above, the system will not be covered by the Tulare County LAMP and will be referred to the SWRCB for review and/or permitting.

If a new, replacement, or repair of the existing system is proposed or required for the site, the design and construction will fall under the Tulare County LAMP regulatory standards for the installation of new & replacement OWTS, as well as repair systems for the existing OWTS."<sup>31</sup>

Both TCEHSD and the Resource Management Agency (RMA) will continue to have similar roles in the OWTS process. TCEHSD will review OWTS design proposals and the RMA will be responsible for permit issuance and inspection.

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<sup>31</sup> Op. Cit. 25-26.



The key difference is that a design report will now be required for all new proposed OWTS. In addition to the design report, a 'Test Hole Permit Application' & Site Evaluation Report must be submitted at the beginning of the permit process.

The Test Hole Permit Application will require two test pit analyses; one in the primary leach field area and the other in the replacement area. Test holes must be dug to a depth of at least five (5) feet deeper than proposed trench bottom depths. For seepage pits, test holes must be dug to a minimum depth of ten (10) feet deeper than the proposed pit bottom.

Where the maximum soil application rate cannot be initially determined from the soil boring/test hole analysis, percolation testing will be required, to justify an application rate for a proposed OWTS design. The average value of all percolation test results shall not exceed 200 Minutes per Inch (MPI). No single test result shall exceed 240 MPI. A minimum of 3 percolation test holes must be explored when the primary & replacement areas are near each other; 6 test holes are required when they are not.

All design reports must include a copy of recorded measurements & time intervals. Design reports that do not incorporate the County approved test form must provide equivalent percolation test information.

In addition, the following methodology must be utilized:

- Percolation test holes shall be 6 inches in diameter. Larger diameter holes may be accepted if the appropriate correction factor & gravel packing are used.
- Unless approval is obtained from the RMA, the test hole bottom depth shall be deeper than the proposed system bottom depth.
- Seepage pits – unless otherwise indicated by the RMA, there shall be a percolation test performed on every seepage pit proposed.
- Presoak requirement – test holes shall be filled with water to a minimum depth of 12 inches above the base of the hole. The presoak shall be maintained for a minimum of 4 hours for sandy soil with no clay and 24 hours for all other soils.
- Percolation tests shall be measured to the nearest 1/8 inch from a fixed point. The test shall begin within 4 hours following completion of the presoak. Adjust the water level to 6 inches (12 inches for seepage pits) over the pea gravel bottom to begin the test.
- Readings shall be taken over 30 minute intervals. Refill as necessary to maintain 6 inches of water over the pea gravel bottom at each interval. Readings shall be taken until 2 consecutive readings do not vary by more than 10 percent per reading, with a minimum of 3 readings. The last 30- minute interval is used to compute the percolation rate.
- If 4 inches or more of water seeps from the hole during the 30 minute interval, readings may be taken at 10 minute intervals. Readings shall be taken until 2 consecutive readings do not vary by more than 10 percent per reading, with a



minimum of 3 readings. The last 10-minute interval is used to compute the percolation rate.

Requirements for septic tank design & construction are as follows.

- Risers/manholes are required for both compartments in septic tanks. There will be minimum compartment sizes for tanks. Inlet & outlet pipe sizing has specific requirements.

Changes for the requirements for dispersal field design are as follows.

- Distribution boxes will now be required for a leach field with multiple lines. Leach fields designs that exceed 500 total feet of leach-line will require a dosing tank.

Seepage pit design will only be permitted to serve single-family residences. Use of seepage pits in all other situations will require permitting approval with the Regional Water Quality Control Board (RWQCB). The diameter of pits may be between 3 to 5 feet in width. The minimum sidewall amount below the inlet shall be 10 feet.

Requirements for the format for a septic design report have changed and are included in the guidance document for the required elements in a septic design report. Changes to the processing and review fees for design reports will include a fee schedule to address the changes.

Septic design reports must be submitted by ‘Qualified Professionals’ that are those persons with the following credentials/licensure.

- RMA Building Inspectors demonstrating knowledge of OWTS
- California Professional Engineer
- California Engineering Geologist
- California Professional Hydrogeologist
- Registered Environmental Health Specialist (REHS)
- Soil Science of America Certified Soil Scientists

Parcel density will be limited to one system per acre. Land development proposals that will cause an exceedance of this ratio will likely require cumulative impact studies. These studies may include nitrogen- loading analysis and groundwater mounding evaluation.

There is an existing septic tank and seepage pit located at the site. If the system is fully functional and meets the design requirements for the proposed facility, it is anticipated that the proposed project would not require a new OWTS to address the sewage needs of the proposed project.

The installation of a septic tank is regulated and monitored by the TCEHSD and RMA.



Upon submission of an application to install a new septic system, TCEHSD requires that the above newly implemented LAMP procedures be followed for an on-site OWTS. According to the site owner, the currently permitted OWTS is functioning and is expected to be utilized for the proposed operations.”<sup>32</sup>

It is anticipated that if the on-site system is fully functional, meets the design requirements for the proposed project, and complies with TCEHSD regulations/permit requirements through design features, the Project would result in a ***Less Than Significant Project-specific Impact*** to this Checklist Item.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR. ***No Cumulative Impacts*** will occur.

Mitigation: ***None Required***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.

**f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

There are no known paleontological resources on the project site or its immediate vicinity. “There are no records or reports of known vertebrate fossil localities in the project vicinity, with the nearest vertebrate fossil discoveries occurring near Exeter at least 10 miles east of the project site [Sequoia Gateway Commerce Park], where there are surface exposures of Pliocene-era alluvium.”<sup>33</sup> Because of the nature of the soil in the Project area, (i.e. alluvium), there is potential for intact fossils to be present beneath the upper layer of soil at depths greater than six (6) feet, and a low potential for intact fossils to be present at depths of less than six (6) feet below the existing ground surface. Therefore, it is possible that previously undiscovered paleontological materials may be buried within the project site which could be adversely affected by grading, excavation, and construction for the project.

Project Impact Analysis: ***Less Than Significant Impact With Mitigation***

Except for the stormwater retention basin, the Project will not require any extensive earthmoving, earth-shaping, trenching, or other soil excavation. As noted earlier, the older

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<sup>32</sup> Op. Cit. 28-29.

<sup>33</sup> “Sequoia Gateway Commerce Park Draft EIR September 2018”. Page. 3.5-4.



Quaternary alluvium from the Pleistocene-era (Ice Age – 2.6 million to 10,000 years ago) that underlies the Project site at depth has a high potential to include vertebrate fossils. The younger Quaternary alluvium from the more recent Holocene-era (from 10,000 years ago to present) is considered to have low sensitivity for paleontological resources, although it is always possible that fossils could be present in this near-surface material. Trenching for utility lines, which typically occur at depths of less than five feet, may result in encountering Pleistocene strata (alluvium) which is known to be paleontologically sensitive and could result in disturbing or destroying vertebrate fossil material (e.g., horse, mammoth, camel, elephant, etc.). As such, given the potential for fossils to be present in the upper Holocene materials, albeit a low potential, the potential to disturb or destroy paleontological resources during excavation and grading for the project represents a potentially significant impact. Therefore, in the unlikely event that paleontological resources are encountered, the use of **Mitigation Measures 3.7-1 and 3.7-2 a) through e)**, would reduce impacts to ***Less Than Significant With Mitigation***.

Cumulative Impact Analysis: ***Less Than Significant Impact With Mitigation***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

Therefore, in the unlikely event that paleontological resources are encountered, the use of **Mitigation Measures 3.7-1 and 3.7-2 a) - e)**, would reduce impacts to Less Than Significant With Mitigation. Therefore, ***Less Than Significant Cumulative Impacts With Mitigation*** will occur.

Mitigation: ***See Mitigation Measures 3.7-1 and 3.7-2 (a) – (e)***

The following measures shall be implemented to mitigate any potential impacts to and for the protection of paleontological resources:

- 3.7-1** Submit to the Tulare County RMA Director a grading and construction plan that highlights the planned locations of excavations or other ground alterations that would result in the exposure of soils at depths greater than 5 feet below existing grade within the project site.
- 3.7-2 a)** In the event any paleontological resources are exposed or discovered during subsurface excavation or construction in areas not being monitored by the professional paleontologist, ground-disturbing operations shall stop within 25 feet of the find and the professional paleontologist shall be contacted immediately to implement all applicable provisions of the approved Paleontological Monitoring and Recovery Plan.



- b) If paleontological resource are encountered, retain the services of a qualified professional paleontologist as recognized by the Museum of Paleontology at U.C. Berkeley.
- c) If paleontological resource are encountered, authorize the professional paleontologist to prepare a Paleontological Monitoring and Recovery Plan, following the guidelines of the Society of Vertebrate Paleontology (1995), and submit the Plan to the County for review and approval prior to ground disturbance.
- d) If paleontological resource are encountered, authorize the professional paleontologist to visually monitor the planned excavations that extend deeper than five (5) feet below existing grade at the project site. No monitoring of excavation or construction by the professional paleontologist is required outside the identified deep excavation areas within the project site.
- e) If paleontological resource are encountered, provide advance authorization to the professional paleontologist to implement all applicable provisions of the approved Paleontological Monitoring and Recovery Plan to ensure protection, preservation, and proper recovery of any paleontological resources, including reporting requirements.

Conclusion:

***Less Than Significant Impact With Mitigation***



## DEFINITIONS

**Fault** - “A fault is a fracture in the Earth’s crust that is accompanied by displacement between the two sides of the fault. An active fault is defined as a fracture that has shifted in the last 10,000 to 12,000 years (Holocene Period). A potentially active fault is one that has been active in the past 1.6 million years (Quaternary Period). A sufficiently active fault is one that shows evidence of Holocene displacement on one or more of its segments or branches (Hart, 1997).”<sup>34</sup>

**Liquefaction** - “Liquefaction in soils and sediments occurs during earthquake events, when soil material is transformed from a solid state to a liquid state, generated by an increase in pressure between pore space and soil particles. Earthquake-induced liquefaction typically occurs in low-lying areas with soils or sediments composed of unconsolidated, saturated, clay-free sands and silts, but it can also occur in dry, granular soils or saturated soils with partial clay content.”<sup>35</sup>

**Magnitude** - “Earthquake magnitude is measured by the Richter scale, indicated as a series of Arabic numbers with no theoretical maximum magnitude. The greater the energy released from the fault rupture, the higher the magnitude of the earthquake. Magnitude increases logarithmically in the Richter scale; thus, an earthquake of magnitude 7.0 is thirty times stronger than one of magnitude 6.0. Earthquake energy is most intense at the point of fault slippage, the epicenter, which occurs because the energy radiates from that point in a circular wave pattern. Like a pebble thrown in a pond, the increasing distance from an earthquake’s epicenter translates to reduced ground shaking.”<sup>36</sup>

## REFERENCES

CEQA Guidelines Section 15126.2

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<sup>34</sup> Tulare County General Plan 2030 Update, *Background Report*, Page 8-2.

<sup>35</sup> Ibid.

<sup>36</sup> Ibid.



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# Greenhouse Gas Emissions

## Chapter 3.8

### SUMMARY OF FINDINGS

Based on the impact analysis below, potential impacts to greenhouse gas emissions as a result of the proposed Project are determined to be *Less Than Significant*. The impact determinations in this chapter are based upon information obtained from the References listed at the end of this chapter, as well as information contained in the Air Quality, Greenhouse Gases and Energy Consumption Technical Memorandum (AGE Memo) by RMA Staff and in the detailed Health Risk Assessment and Ambient Air Quality Analysis determination prepared by consultant Alta Environmental, provided in Appendix “A” of this DEIR. A detailed review of potential impacts is provided in the analysis as follows.

### INTRODUCTION

#### CEQA Requirements for Evaluation of Impacts to Greenhouse Gas Emissions

This section of the DEIR addresses potential impacts related to GHG emissions. As required in CEQA Guidelines Section 15126, all phases of the proposed Project would be considered as part of the potential environmental impact.

CEQA Guideline Section 15064.4 Determining the Significance of Impacts from Greenhouse Gas Emissions provides the following guidance for lead agencies in determining the significance of impacts from GHG emissions:

- “(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:
  - (1) Quantify greenhouse gas emissions resulting from a project; and/or
  - (2) Rely on a qualitative analysis or performance based standards.
- (b) In determining the significance of a project’s greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project’s emissions to the effects of climate change. A project’s incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency’s analysis should consider a timeframe that is appropriate for the project. The agency’s analysis also must reasonably reflect evolving scientific knowledge and state



regulatory schemes. A lead agency should consider the following factors, among others, when determining the significance of impacts from greenhouse gas emissions on the environment:

- (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
  - (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
  - (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (see, e.g., section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the projects incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.
- (c) A lead agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use.”<sup>1</sup>

The “Environmental Setting” provides a description greenhouse gases and the County's existing (2007) and projected (2030) greenhouse gas emissions inventory. The “Regulatory Setting” provides a description of applicable Federal, State and Local regulatory policies that were developed in part from information contained in the Tulare County General Plan 2030 Update (General Plan), Tulare County General Plan 2030 Update Background Report (Background Report), and/or Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (RDEIR) incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

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<sup>1</sup> CEQA Guidelines, Section 15064.4



### Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item questions. A significant impact would occur if the project would:

- “(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- (b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.”<sup>2</sup>

The San Joaquin Valley Unified Air Pollution Control District provides the following guidance to lead agencies for determining the cumulative significance of project specific GHG emissions on global climate change:

- “Projects determined to be exempt from the requirements of CEQA would be determined to have a less than significant individual and cumulative impact for GHG emissions and would not require further environmental review, including analysis of project specific GHG emissions. Projects exempt under CEQA would be evaluated consistent with established rules and regulations governing project approval and would not be required to implement BPS.
- Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement BPS.
- Projects implementing Best Performance Standards would not require quantification of project specific GHG emissions. Consistent with CEQA Guideline, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.
- Projects not implementing Best Performance Standards would require quantification of project specific GHG emissions and demonstration that project specific GHG emissions would be reduced or mitigated by at least 29%, compared to BAU, including GHG emission reductions achieved since the 2002-2004 baseline period. Projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.
- Notwithstanding any of the above provisions, projects requiring preparation of an Environmental Impact Report for any other reason would require quantification of project specific GHG emissions. Projects implementing BPS or achieving at least a 29% GHG

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<sup>2</sup> Ibid. Appendix G: Environmental Checklist Form.



emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.”<sup>3</sup>

## ENVIRONMENTAL SETTING

“Gases that trap heat in the atmosphere are called greenhouse gases (GHGs). The major concern is that increases in GHGs are causing global climate change. Global climate change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation and temperature. The gases believed to be most responsible for global warming are water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>).”<sup>4</sup> Nitrogen trifluoride was not listed initially in AB 32 but was subsequently added to the list via legislation. <sup>5</sup>

“For over the past 200 years, the burning of fossil fuels such as coal and oil, deforestation, and other sources have caused the concentrations of heat-trapping "greenhouse gases" to increase significantly in our atmosphere. These gases absorb some of the energy being radiated from the surface of the earth and trap it in the atmosphere, essentially acting like a blanket that makes the earth's surface warmer than it would be otherwise.

Greenhouse gases are necessary to life as we know it, because without them the planet's surface would be about 60°F cooler than present. But, as the concentrations of these gases continue to increase in the atmosphere, the Earth's temperature is climbing above past levels. According to NOAA and NASA data, the Earth's average surface temperature has increased by about 1.2 to 1.4°F since 1900. The ten warmest years on record (since 1850) have all occurred in the past 13 years (EPA 2009). Most of the warming in recent decades is very likely the result of human activities. Other aspects of the climate are also changing such as rainfall patterns, snow and ice cover, and sea level. ”<sup>6</sup>

“In 2007, Tulare County generated approximately 5.2 million tonnes of CO<sub>2</sub>e [carbon dioxide equivalents]. The largest portion of these emissions (63 percent) is attributed to dairies/feedlots, while the second largest portion (16 percent) is from mobile sources.”<sup>7</sup> **Table 3.8-1** below, identifies Tulare County’s emissions by sector in 2007.

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<sup>3</sup> San Joaquin Valley Unified Air Pollution Control District. Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects Under CEQA. Pages 4 to 5.

<sup>4</sup> General Plan Background Report. Pages 6-19 to 6-20.

<sup>5</sup> California Air Resources Board. Assembly Bill 32 Overview. Accessed November 2019 at: <http://www.arb.ca.gov/cc/ab32/ab32.htm>.

<sup>6</sup> United States Environmental Protection Agency, National Greenhouse Gas Emissions Data. Technical Support Document for the Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act. U.S. Environmental Protection Agency. Page 1-2. Accessed November 2019 at: <https://www.epa.gov/ghgemissions/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a-clean>.

<sup>7</sup> General Plan 2030 Update Background Report. Page 6-36.



<b>Table 3.8-1</b>		
<b>Emissions by Sector in 2007<sup>8</sup></b>		
<b>Sector</b>	<b>CO<sub>2</sub>e (tonnes/year)</b>	<b>% of Total</b>
Electricity	542,690	11%
Natural Gas	321,020	6%
Mobile Sources	822,230	16%
Dairy/Feedlots	3,294,870	63%
Solid Waste	227,250	4%
<b>Total</b>	<b>5,208,060</b>	<b>100%</b>
<b>Per Capita</b>	<b>36.1</b>	

“In 2030, Tulare County is forecast to generate approximately 6.1 million tonnes of CO<sub>2</sub>e. The largest portion of these emissions (59 percent) is attributed to dairies/feedlots, while the second largest portion (20 percent) is from mobile sources. ... Per capita emissions in 2030 are projected to be approximately 27 tonnes of CO<sub>2</sub>e per resident.”<sup>9</sup>

<b>Table 3.8-2</b>		
<b>Emissions by Sector in 2030<sup>10</sup></b>		
<b>Sector</b>	<b>CO<sub>2</sub>e (tonnes/year)</b>	<b>% of Total</b>
Electricity	660,560	11%
Natural Gas	384,410	6%
Mobile Sources	1,212,370	20%
Dairy/Feedlots	3,601,390	59%
Solid Waste	246,750	4%
<b>Total</b>	<b>6,105,480</b>	<b>100%</b>
<b>Per Capita</b>	<b>27.4</b>	

The Tulare County General Plan 2030 Update Background Report contains the following: “Enhancement of the greenhouse effect can occur when concentrations of GHGs exceed the natural concentrations in the atmosphere. Of these gases, CO<sub>2</sub> and methane are emitted in the greatest quantities from human activities. Emissions of CO<sub>2</sub> are largely by-products of fossil fuel combustion, whereas methane primarily results from off-gassing associated with agricultural practices and landfills. SF<sub>6</sub> is a GHG commonly used in the utility industry as an insulating gas in transformers and other electronic equipment. There is widespread international scientific agreement that human-caused increases in GHGs has and will continue to contribute to global warming, although there is much uncertainty concerning the magnitude and rate of the warming.

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<sup>8</sup> Ibid. 6-38.

<sup>9</sup> Op. Cit.

<sup>10</sup> Op. Cit.



Some of the potential resulting effects in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CARB, 2006). Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects (IPCC, 2001):

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas; and
- More intense precipitation events.

Also, there are many secondary effects that are projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood, and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great.”<sup>11</sup>

## REGULATORY SETTING

Applicable Federal, State, Regional, and local regulations specific to greenhouse gas resources are described below. The following environmental regulatory settings were summarized, in part, from information contained in the Tulare County 2030 General Plan Update Background Report, Tulare County 2030 General Plan Update Recirculated Draft Environmental Impact Report (RDEIR), the California Air Resources Board (ARB) website, and the United States Environmental Protection Agency (US EPA) website.

### *Federal Agencies & Regulations*

#### United States Environmental Protection Agency (US EPA)

“The primary sources of greenhouse gas emissions in the United States are:

- **Electricity production** (31% of 2013 greenhouse gas emissions) - Electricity production generates the largest share of greenhouse gas emissions. Approximately 67% of our electricity comes from burning fossil fuels, mostly coal and natural gas. <sup>[2]</sup>
- **Transportation** (27% of 2013 greenhouse gas emissions) - Greenhouse gas emissions from transportation primarily come from burning fossil fuel for our cars, trucks, ships, trains, and planes. Over 90% of the fuel used for transportation is petroleum based, which includes gasoline and diesel. <sup>[3]</sup>

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<sup>11</sup> General Plan 2030 Update Background Report. Page 6-31.



- **Industry** (21% of 2013 greenhouse gas emissions) - Greenhouse gas emissions from industry primarily come from burning fossil fuels for energy as well as greenhouse gas emissions from certain chemical reactions necessary to produce goods from raw materials.
- **Commercial and Residential** (12% of 2013 greenhouse gas emissions) - Greenhouse gas emissions from businesses and homes arise primarily from fossil fuels burned for heat, the use of certain products that contain greenhouse gases, and the handling of waste.
- **Agriculture** (9% of 2013 greenhouse gas emissions) - Greenhouse gas emissions from agriculture come from livestock such as cows, agricultural soils, and rice production.
- **Land Use and Forestry** (offset of 13% of 2013 greenhouse gas emissions) - Land areas can act as a sink (absorbing CO<sub>2</sub> from the atmosphere) or a source of greenhouse gas emissions. In the United States, since 1990, managed forests and other lands have absorbed more CO<sub>2</sub> from the atmosphere than they emit.”<sup>12</sup>

### Greenhouse Gas Endangerment Finding

“On December 7, 2009, Administrator Lisa Jackson signed a final action, under Section 202(a) of the Clean Air Act, finding that six key well-mixed greenhouse gases constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to the climate change problem.”<sup>13</sup>

“On December 7, 2009, the Administrator signed two distinct findings regarding greenhouse gases under section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases — carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>) — in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.”<sup>14</sup>

### *State Agencies & Regulations*

#### California Clean Air Act

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<sup>12</sup> United States Environmental Protection Agency. Sources of Greenhouse Gas Emissions. Accessed November 2019 at: <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>.

<sup>13</sup> United States Environmental Protection Agency. Regulatory Initiatives. Accessed November 2019 at: <http://www3.epa.gov/climatechange/EPAactivities/regulatory-initiatives.html>.

<sup>14</sup> United States Environmental Protection Agency. Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act. Accessed November 2019 at: <http://www3.epa.gov/climatechange/endangerment/>.



“The California CAA of 1988 establishes an air quality management process that generally parallels the federal process. The California CAA, however, focuses on attainment of the State ambient air quality standards,...which, for certain pollutants and averaging periods, are more stringent than the comparable federal standards. Responsibility for meeting California’s standards is addressed by the CARB and local air pollution control districts (such as the eight county SJVAPCD, which administers air quality regulations for Tulare County). Compliance strategies are presented in district-level air quality attainment plans.”<sup>15</sup>

#### Executive Order S-3-05

“In 2005, in recognition of California’s vulnerability to the effects of climate change, Governor Schwarzenegger issued Executive Order S-3-05, which sets forth a series of target dates by which statewide emission of GHGs would be progressively reduced, as follows:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The Executive Order additionally ordered that the Secretary of the California Environmental Protection Agency (Cal EPA) would coordinate oversight of the efforts among state agencies made to meet the targets and report to the Governor and the State Legislature biannually on progress made toward meeting the GHG emission targets. Cal EPA was also directed to report biannually on the impacts to California of global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry, and prepare and report on mitigation and adaptation plans to combat these impacts.

In response to the Executive Order, the Secretary of Cal EPA created the Climate Action Team (CAT), composed of representatives from the Air Resources Board; Business, Transportation, & Housing; Department of Food and Agriculture; Energy Commission; California Integrated Waste Management Board (CIWMB); Resources Agency; and the Public Utilities Commission (PUC). The CAT prepared a recommended list of strategies for the state to pursue to reduce climate change emission in the state (Climate Action Team, 2006).”<sup>16</sup>

#### Assembly Bill 32: California Global Warming Solutions Act of 2006

“In 2006, California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500, et seq.), which requires the CARB to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020.

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<sup>15</sup> Tulare County General Plan 2030 Update RDEIR. Pages 3.3-2 to 3.3-3.

<sup>16</sup> Tulare County General Plan 2030 Update Background Report (at Climate Action Team Report to Governor Schwarzenegger and the Legislature). 6-21 to 6-22.



The bill also requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG emission reductions. The bill authorizes CARB to adopt market-based compliance mechanisms. The bill additionally requires the state board to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism adopted by the state board, pursuant to specified provisions of existing law. The bill also authorizes CARB to adopt a schedule of fees to be paid by regulated sources of GHG emissions. Because the bill requires CARB to establish emissions limits and other requirements, the violation of which would be a crime, this bill would create a state-mandated local program.

Under AB 32, by June 30, 2007, CARB was to identify a list of discrete early action GHG reductions that will be legally enforceable by 2010. By January 1, 2008, CARB was also to adopt regulations that will identify and require selected sectors to report their statewide GHG emissions. By January 1, 2011, CARB must adopt rules and regulations to achieve the maximum technologically feasible and cost-effective reductions in GHG reductions. CARB is authorized to enforce compliance with the program that it develops.”<sup>17</sup>

#### Senate Bill 97

“Governor Schwarzenegger signed Senate Bill (SB) 97 (Sutton), a CEQA and GHG emission bill, into law on August 24, 2007. SB 97 requires the Governor’s Office of Planning and Research (OPR) to prepare CEQA guidelines for the mitigation of GHG emissions, including, but not limited to, effects associated with transportation or energy consumption. OPR must prepare these guidelines and transmit them to the Resources Agency by July 1, 2009. On April 13, 2009, OPR submitted to the Secretary for Natural Resources its proposed amendments to the state CEQA Guidelines for greenhouse gas emissions. The Resources Agency must then certify and adopt the guidelines by January 1, 2010. OPR and the Resources Agency are required to periodically review the guidelines to incorporate new information or criteria adopted by CARB pursuant to the Global Warming Solutions Act, scheduled for 2012.

The OPR published a Technical Advisory in June of 2008 that is an “informal guidance regarding the steps lead agencies should take to address climate change in their CEQA documents” to serve in the interim until guidelines are established pursuant to SB 97 (OPR, 2008). This Advisory recommends that CEQA documents include quantification of estimated GHG emissions associated with a proposed project and that a determination of significance be made. With regard to significance the Advisory states that “lead agencies must determine what constitutes a significant impact. In the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a “significant impact”, individual lead agencies may undertake a project-by-project analysis, consistent with the available guidance and current CEQA practice”.<sup>18</sup>

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<sup>17</sup> Ibid. 6-22 to 6-23.

<sup>18</sup> Op. Cit. (at Technical Advisory – CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review). 6-26 to 6-27.



### Senate Bill 375

SB 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS), which will prescribe land use allocation in that MPO's Regional Transportation Plan (RTP). ARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every 8 years, but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. ARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG emission reduction targets, transportation projects would not be eligible for funding programmed after January 1, 2012.<sup>19</sup>

### California Air Resources Board (ARB or CARB)

"The Air Resources Board (ARB or Board) has established State ambient air quality standards (State standards) to identify outdoor pollutant levels considered safe for the public. After State standards are established, State law requires ARB to designate each area as attainment, nonattainment, or unclassified for each State standard. The area designations, which are based on the most recent available data, indicate the healthfulness of air quality throughout the State."<sup>20</sup> On July 22, 2004, the California Air Resources Board adopted the 2004 Revisions to the California State Implementation Plan for Carbon Monoxide<sup>21</sup>.

### Climate Change Scoping Plan

"The CARB published a *Climate Change Scoping Plan* in December 2008 (CARB, 2008c) that outlines reduction measures to lower the state's GHG emissions to meet the 2020 limit. The *Scoping Plan* "proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health". Key elements for reducing California's GHG emissions to 1990 levels by 2020 include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;

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<sup>19</sup> Senate Bill 375 (Steinberg). Accessed November 2019 at:  
[http://leginfo.ca.gov/faces/billNavClient.xhtml?bill\\_id=200720080SB375](http://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=200720080SB375).

<sup>20</sup> California Air Resources Board. Air Quality Standards and Area Designations. Accessed November 2019 at:  
<http://www.arb.ca.gov/desig/desig.htm>.

<sup>21</sup> California Air Resources Board. 2004 Revisions to the California State Implementation Plan for Carbon Monoxide. Accessed November 2019 at: <http://www.arb.ca.gov/planning/sip/co/co.htm>.



- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation.”<sup>22</sup>

### ***Regional Agency Policy and Regulations***

#### **California Air Pollution Control Officers Association (CAPCOA)**

“In January 2008, the California Air Pollution Control Officers Association (CAPCOA) issued a “white paper” on evaluating GHG emissions under CEQA (CAPCOA, 2008). The CAPCOA white paper strategies are not guidelines and have not been adopted by any regulatory agency; rather, the paper is offered as a resource to assist lead agencies in considering climate change in environmental documents.”<sup>23</sup>

The California Association of Air Pollution Control Officers (CAPCOA) represents all thirty-five local air quality agencies throughout California. CAPCOA, which has been in existence since 1975, is dedicated to protecting the public health and providing clean air for all our residents and visitors to breathe, and initiated the Greenhouse Gas Reduction Exchange.<sup>24</sup>

“The Greenhouse Gas Reduction Exchange (GHG Rx) is a registry and information exchange for greenhouse gas emissions reduction credits designed specifically to benefit the state of California. The GHG Rx is a trusted source of locally generated credits from projects within California, and facilitates communication between those who create the credits, potential buyers, and funding organizations.”<sup>25</sup> Four public workshops were held throughout the state including in the SJVAPCD. The mission is to provide a trusted source of high quality California-based greenhouse gas credits to keep investments, jobs, and benefits in-state, through an Exchange with integrity, transparency, low transaction costs and exceptional customer service.<sup>26</sup>

#### **San Joaquin Valley Unified Air Pollution Control District (Air District)**

“The San Joaquin Valley Air Pollution Control District is a public health agency whose mission is to improve the health and quality of life for all Valley residents through efficient, effective and

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<sup>22</sup> Tulare County General Plan 2030 Update Background Report (at Climate Change Proposed Scoping Plan). Pages 6-27 to 6-28.

<sup>23</sup> Op. Cit. (at CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act). 6-28.

<sup>24</sup> California Air Pollution Control Officers Association. Accessed November 2019 at: <http://www.capcoa.org/>.

<sup>25</sup> Ibid.

<sup>26</sup> California Air Pollution Control Officers Association. CAPCOA Greenhouse Gas Reduction Exchange. Accessed November 2019 at: <http://www.ghgrx.org/>.



entrepreneurial air quality-management strategies.”<sup>27</sup> “The San Joaquin Valley Air Pollution Control District is made up of eight counties in California’s Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare and the San Joaquin Valley Air Basin portion of Kern.”<sup>28</sup>

“On December 17, 2009, the District’s Governing Board adopted the District Policy: *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*. The District’s Governing Board also approved the guidance document: *Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects Under CEQA*. In support of the policy and guidance document, District staff prepared a staff report: *Addressing Greenhouse Gas Emissions Under the California Environmental Quality Act*. These documents adopted in December of 2009 continue to be the relevant policies to address GHG emissions under CEQA. As these documents may be modified under a separate process, the latest versions should be referenced to determine the District’s current guidance at the time of analyzing a particular project.”<sup>29</sup>

“It is widely recognized that no single project could generate enough GHG emissions to noticeably change the global climate temperature. However, the combination of GHG emissions from past, present and future projects could contribute substantially to global climate change. Thus, project specific GHG emissions should be evaluated in terms of whether or not they would result in a cumulatively significant impact on global climate change. GHG emissions, and their associated contribution to climate change, are inherently a cumulative impact issue. Therefore, project-level impacts of GHG emissions are treated as one-in-the-same as cumulative impacts.

In summary, the staff report evaluates different approaches for assessing significance of GHG emission impacts. As presented in the report, District staff reviewed the relevant scientific information and concluded that the existing science is inadequate to support quantification of the extent to which project specific GHG emissions would impact global climate features such as average air temperature, average rainfall, or average annual snow pack. In other words, the District was not able to determine a specific quantitative level of GHG emissions increase, above which a project would have a significant impact on the environment, and below which would have an insignificant impact. This is readily understood, when one considers that global climate change is the result of the sum total of GHG emissions, both manmade and natural that occurred in the past; that is occurring now; and will occur in the future.

In the absence of scientific evidence supporting establishment of a numerical threshold, the District policy applies performance based standards to assess project-specific GHG emission impacts on global climate change. The determination is founded on the principal that projects whose emissions have been reduced or mitigated consistent with the California Global Warming Solutions Act of 2006, commonly referred to as “AB 32”, should be considered to have a less than significant impact on global climate change. For a detailed discussion of the District’s

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<sup>27</sup> San Joaquin Valley Air Pollution Control District. About the District. Accessed November 2019 at: [http://www.valleyair.org/General\\_info/aboutdist.htm#Mission](http://www.valleyair.org/General_info/aboutdist.htm#Mission).

<sup>28</sup> Ibid.

<sup>29</sup> Air District. GAMAQI. Section 8.9. Page 110.



establishment of thresholds of significance for GHG emissions, and the District's application of said thresholds, the reader is referred to the above referenced staff report, District Policy, and District Guidance documents.”<sup>30</sup>

“As presented in Figure 6 (Process of Determining Significance of Greenhouse Gas Emissions) [of the GAMAQI], the policy provides for a tiered approach in assessing significance of project specific GHG emission increases.

- Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the Lead Agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the Lead Agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement Best Performance Standards (BPS).
- Projects implementing BPS would not require quantification of project specific GHG emissions. Consistent with CEQA Guideline, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.
- Projects not implementing BPS would require quantification of project specific GHG emissions and demonstration that project specific GHG emissions would be reduced or mitigated by at least 29%, compared to Business as Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period, consistent with GHG emission reduction targets established in ARB's AB 32 Scoping Plan. Projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.

The District guidance for development projects also relies on the use of BPS. For development projects, BPS includes project design elements, land use decisions, and technologies that reduce GHG emissions. Projects implementing any combination of BPS, and/or demonstrating a total 29 percent reduction in GHG emissions from business-as-usual (BAU), would be determined to have a less than cumulatively significant impact on global climate change.”<sup>31</sup>

**Figure 3.8-1** provides a visual summary of the Air District's process for determining significance of project-related GHG emissions.

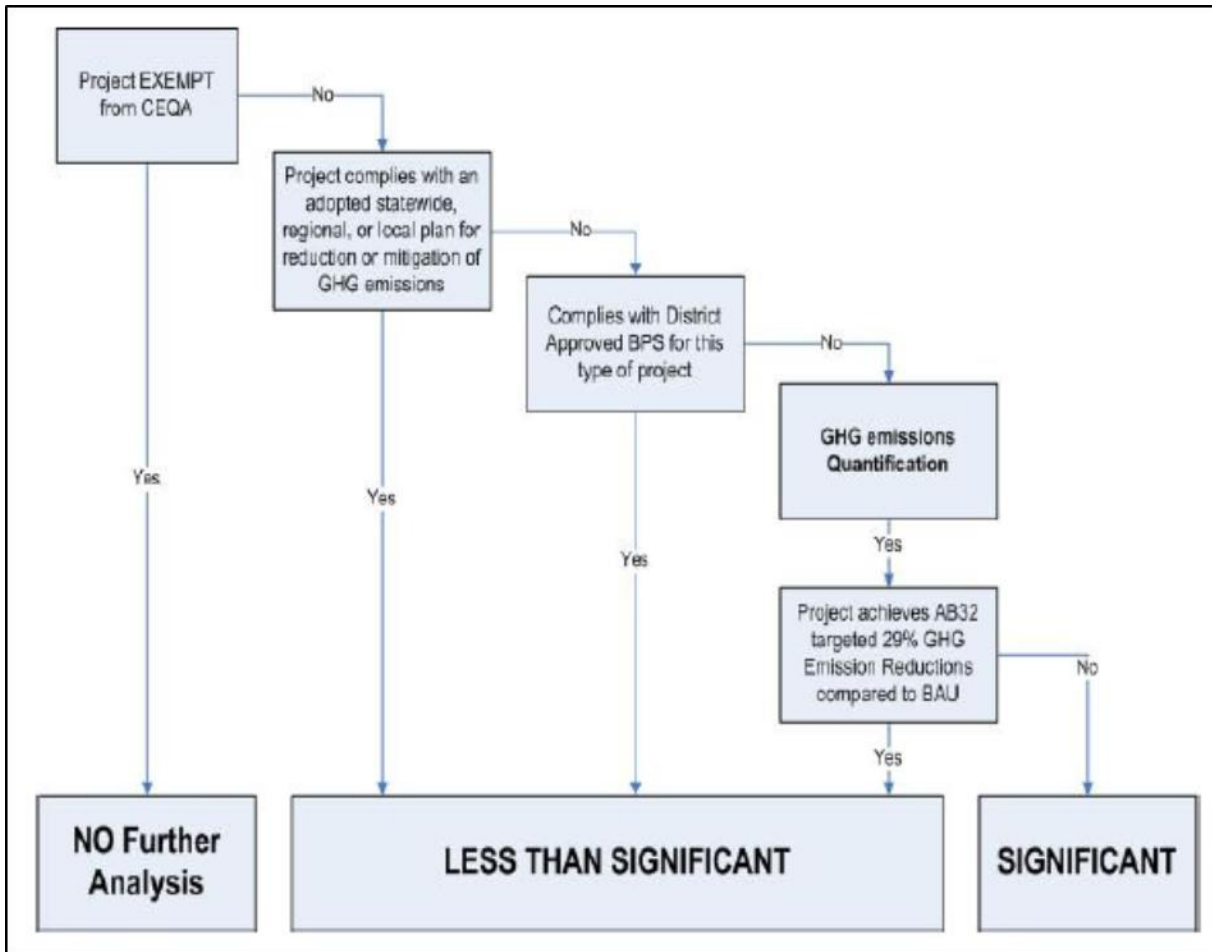
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<sup>30</sup> Ibid. Section 8.9. 111-112.

<sup>31</sup> Op. Cit. Section 8.9.1.



**Figure 3.8-1**  
**Process of Determining Significance of Greenhouse Gas Emissions**



The Air District's *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Project under CEQA* states, "Projects implementing Best Performance Standards in accordance with this guidance would be determined to have a less than significant individual and cumulative impact on global climate change and would not require project specific quantification of GHG emissions. Projects exempt from the requirements of CEQA, and projects complying with an approved GHG emission reduction plan or mitigation program would also be determined to have a less than significant individual or cumulative impact. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources and have a certified final CEQA document. Projects not implementing BPS would require quantification of project specific GHG emissions. To be determined to have a less than significant individual and cumulative impact on global climate changes, such projects must be determined to have reduced or mitigated GHG emissions by 29%, consistent with GHG emission reduction targets established in ARB's AB 32 Scoping Plan. Furthermore, quantification of GHG emissions would be expected for all projects for which the lead agency has determined that an



Environmental Impact Report is required, regardless of whether the project incorporates Best Performance Standards.”<sup>32</sup>

“If total GHG emissions reductions measures add up to 29% or more, are enforceable, and are required as a part of the development’s approval process, the project achieves the Best Performance Standard (BPS) for the respective type of development project. Thus, the GHG emissions from the development project would be determined to have a less than individually and cumulatively significant impact on global climate change for CEQA purposes.”<sup>33</sup>

“By definition, BPS for development projects is achieving a project-by-project 29% reduction in GHG emissions, compared to BAU. Thus, it is reasonable to conclude that Lead Agencies implementing the proposed *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* threshold will achieve an overall reduction in GHG emissions consistent with AB 32 emission reduction targets...”<sup>34</sup>

### ***Local Policy & Regulations***

#### **Tulare County General Plan Policies**

The General Plan has a number of policies that apply to projects within Tulare County that support reduction efforts of GHG. General Plan policies that relate to the proposed Project are listed as follows:

**AQ-1.3 Cumulative Air Quality Impacts** - The County shall require development to be located, designed, and constructed in a manner that would minimize cumulative air quality impacts. Applicants shall be required to propose alternatives as part of the State CEQA process that reduce air emissions and enhance, rather than harm, the environment.

**AQ-1.4 Air Quality Land Use Compatibility** - The County shall evaluate the compatibility of industrial or other developments which are likely to cause undesirable air pollution with regard to proximity to sensitive land uses, and wind direction and circulation in an effort to alleviate effects upon sensitive receptors.

**AQ-1.5 California Environmental Quality Act (CEQA) Compliance** - The County shall ensure that air quality impacts identified during the CEQA review process are consistently and reasonably mitigated when feasible.

**AQ-1.7 Support Statewide Climate Change Solutions** - The County shall monitor and support the efforts of Cal/EPA, CARB, and the SJVAPCD, under AB 32 (Health and Safety Code Section 38501 et seq.), to develop a recommended list of emission reduction strategies. As

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<sup>32</sup> Air District. *Guidance for Valley Land-use Agencies*. Page 4.

<sup>33</sup> Ibid. 7-8.

<sup>34</sup> Op. Cit. 8.



appropriate, the County will evaluate each new project under the updated General Plan to determine its consistency with the emission reduction strategies.

**AQ-1.8 Greenhouse Gas Emissions Reduction Plan/Climate Action Plan** - The County will develop a Greenhouse Gas Emissions Reduction Plan (Plan) that identifies greenhouse gas emissions within the County as well as ways to reduce those emissions. The Plan will incorporate the requirements adopted by the California Air Resources Board specific to this issue. In addition, the County will work with the Tulare County Association of Governments and other applicable agencies to include the following key items in the regional planning efforts.

1. Inventory all known, or reasonably discoverable, sources of greenhouse gases in the County,
2. Inventory the greenhouse gas emissions in the most current year available, and those projected for year 2020, and
3. Set a target for the reduction of emissions attributable to the County's discretionary land use decisions and its own internal government operations.

**AQ-1.9 Support Off-Site Measures to Reduce Greenhouse Gas Emissions** - The County will support and encourage the use of off-site measures or the purchase of carbon offsets to reduce greenhouse gas emissions.

#### Tulare County Climate Action Plan

“The Tulare County Climate Action Plan (CAP) serves as a guiding document for County of Tulare (“County”) actions to reduce greenhouse gas emissions and adapt to the potential effects of climate change. The CAP is an implementation measure of the 2030 General Plan Update. The General Plan provides the supporting framework for development in the County to produce fewer greenhouse gas emissions during Plan buildout. The CAP builds on the General Plan’s framework with more specific actions that will be applied to achieve emission reduction targets consistent with California legislation.”<sup>35</sup>

## **IMPACT EVALUATION**

### **Would the project:**

- a) **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Project Impact Analysis:                      ***Less Than Significant Impact***

In addition to their GAMAQI and Guidance for Agencies documents, the Air District adopted the policy: *District Policy – Addressing GHG Emission Impacts for Stationary*

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<sup>35</sup> Tulare County Climate Action Plan, Page 1



*Source Projects Under CEQA When Serving as the Lead Agency* to assist permit applicants and project proponents in assessing the impacts of project specific GHG emissions from stationary source projects.<sup>36</sup> This policy applies to projects for which the Air District has discretionary approval authority over the project and serves as the lead agency for CEQA purposes; however, land use agencies can refer to it as guidance for projects that include stationary sources of emissions.<sup>37</sup> The policy summarizes the Air District's evaluation process for determining the significance of GHG-related impacts for stationary source projects as presented in **Figure 3.8-1**.<sup>38</sup>

The Air District has determined that, “[p]rojects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement BPS.”<sup>39</sup>

Section 15064.4(b) of the CEQA Guidelines states that a lead agency should consider the following three considerations when determining the significance of impacts from GHG emissions.

- “(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
- (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (see, e.g., section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies

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<sup>36</sup> Air District. Air District Policy. Agency. Accessed November 2019 at: <http://www.valleyair.org/Programs/CCAP/12-17-09/2%20CCAP%20-%20FINAL%20District%20Policy%20CEQA%20GHG%20-%20Dec%2017%202009.pdf>.

<sup>37</sup> Air District. Fact Sheet: Addressing Greenhouse Gas Emissions Impact under the California Environmental Quality Act (CEQA) – Stationary Source Projects. Accessed November 2019 at: [http://www.valleyair.org/Programs/CCAP/bps/Fact\\_Sheet\\_Stationary\\_Sources.pdf](http://www.valleyair.org/Programs/CCAP/bps/Fact_Sheet_Stationary_Sources.pdf).

<sup>38</sup> Air District. GAMAQI. Figure 6. Page 113, and Air District Policy. Page10.

<sup>39</sup> Air District. Air District Policy. Page 8.



address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.”<sup>40</sup>

The Tulare County Climate Action Plan (CAP) was adopted in 2012 to address AB 32 2020 targets and ARB's 2008 Scoping Plan and was updated in 2018 to address SB 32 2030 targets and ARB's 2017 Scoping Plan. The CAP states, “The 2018 CAP Update includes an additional method of determining project consistency with the CAP and 2030 targets. Projects subject to CEQA review could use a checklist containing design features and measures that are needed to determine consistency. Large projects (500-unit subdivisions and 100,000 square feet of retail or equivalent intensity for other uses) and new specific plans should provide a greenhouse gas analysis report quantifying GHG emissions to demonstrate that the project emissions are at least 31 percent below 2015 levels by 2030 or 9 percent below BAU emissions in 2030. These are the amounts currently required from development related sources to demonstrate consistency with SB 32 2030 targets. Smaller projects may also prepare a GHG analysis report if the checklist is not appropriate for a particular project or is deemed necessary by the project proponent or County staff. The GHG analysis should incorporate as many measures as possible from the CalEEMod mitigation component as described in Table 15 [of the CAP Update] and can take credit for 2017 Scoping Plan measures that have not been incorporated into CalEEMod but that will be adopted prior to 2030 such as 50 percent RPS.”<sup>41</sup>

The CAP fulfills the requirements of consideration #3 as a local plan for the reduction or mitigation of greenhouse gas emissions. The CAP includes strategies to reduce GHG emissions through compliance with relevant General Plan policies and statewide GHG regulations. The 2018 CAP indicates that the County is on track to achieve the AB 32 2020 targets with the existing CAP measures and includes new targets for 2030. The CAP target for 2030 is a per capita rate of 4.18 tons per person in 2030. This would require an 8.6 percent reduction from business as usual in 2030 accounting for regulations currently in place.

The CAP focuses on residential and commercial development. CAP targets are not intended for Industrial process emissions since they are subject to Cap-and-Trade. Industrial projects with large numbers of employees and air-conditioned buildings would be subject to the CAP targets related to building energy efficiency and employee commuting. The project includes no new buildings and adds only three new employees. No mining industry-specific local measures are included in the CAP; however, the project will comply State regulations that apply to fuels used by project trucks and equipment, vehicle emission standards, and electricity consumed by the project that will reduce project emissions. “For industrial projects where the SJVAPCD is a Responsible Agency, the project will be expected to implement Best Performance Standards included in the SJVAPCD Guidelines for Addressing Greenhouse Gas Emissions on the processes and stationary equipment that emit greenhouse

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<sup>40</sup> CEQA Guidelines § 15064.4(b).

<sup>41</sup> Tulare County Climate Action Plan. December 2018 Update. Page 73. Accessed November 2019 at: <http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/220Climate%20Action%20Plan/CLIMATE%20ACTION%20PLAN%202018%20UPDATE.pdf>.



gases to levels that meet or exceed state targets and may be subject to Cap-and-Trade Program requirements.”<sup>42</sup> The project requires no new air quality permits so the SJVAPCD is not a Responsible Agency in this case. Therefore, the analysis provides a quantitative analysis of its GHG emissions and assesses compliance with plans and regulations adopted to reduce or mitigate GHG emissions.

The State’s regulatory program implementing the 2008 Scoping Plan is now fully mature. All regulations envisioned in the Scoping Plan have been adopted by the responsible agencies and the effectiveness of those regulations has been estimated by the agencies during the adoption process and then are tracked to verify their effectiveness after implementation. As previously noted, the State is on track to achieve the 2020 target with adopted regulations and has adopted the 2017 Scoping Plan Update which provides the State’s strategy to achieve the SB 32 2030 target of a 40 percent reduction in emissions compared to 1990 levels. The 2017 Scoping Plan includes existing and new measures that when implemented are expected to achieve the SB 32 2030 target. The 2017 Scoping Plan achieves substantial reductions beyond 2020 through continued implementation of existing regulations. Other regulations will be adopted to implement recently enacted legislation including SB 350, which requires an increase in renewable energy from 33 percent to 50 percent and doubling the efficiency of existing buildings by 2030. The Legislature extended the Cap-and-Trade Program through 2030. Cap-and-Trade provides a mechanism to make up shortfalls in other strategies if they occur.<sup>43</sup> In addition, the strategy relies on reductions achieved in implementing the ARB Short-Lived Climate Pollutant (SLCP) Reduction Strategy to reduce pollutants not previously controlled for climate change such as black carbon, methane, and hydrofluorocarbons (HFCs).<sup>44</sup>

The State’s regulatory program is able to target both new and existing development because the two most important strategies—motor vehicle fuel efficiency and emissions from electricity generation— obtain reductions equally from existing and new sources. This is because all vehicle operators use cleaner low carbon fuels and buy vehicles subject to the fuel efficiency regulations, and all building owners or operators purchase cleaner energy from the grid that is produced by increasing percentages of renewable fuels. This includes regulations on mobile sources such as the Pavley standards that apply to all vehicles purchased in California, the Low Carbon Fuel Standard (LCFS) that applies to all fuel used in California, and the Renewable Portfolio Standard (RPS) and Renewable Energy Standard that apply to utilities providing electricity to all California homes and businesses. These regulations apply to the Project’s most important emission sources (on-road and off-road motor vehicles and energy use) and contribute toward meeting State GHG reduction targets. Measures targeted exclusively at new development include Title 24 Building Efficiency

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<sup>43</sup> ARB. California’s 2017 Climate Change Scoping Plan. Accessed November 2019at: [https://www.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf).

<sup>44</sup> ARB. Short-Lived Climate Pollutant Reduction Strategy. Accessed November 2019 at <https://ww2.arb.ca.gov/resources/documents/final-short-lived-climate-pollutant-reduction-strategy-march-2017>.



Standards, the CalGreen Building Code, and water conservation measures applicable to new construction.

The State's regulatory strategy relies on Cap-and-Trade Program to achieve most reductions from the industrial sector and it applies to 80 percent of the State's emission inventory. Cap-and-Trade applies to large sources such as electrical utilities, fuel producers and refiners, and cement manufacturers. The Cap-and-Trade Program also addresses emissions from fuels and from combustion of other fossil fuels not directly covered at large sources in the Program. The additional costs for fuel and electricity to comply with Cap-and-Trade are spread throughout the economy to users of the fuel and electricity such as the project.

The analysis for this Project assesses consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities. The analysis shows the extent to which the Project complies with adopted regulations. At this point in time, no additional reductions are required from new development beyond regulations for the State to achieve its 2020 target. The 2030 target will require a reduction from 431 metric tons of CO<sub>2</sub> equivalents (MTCO<sub>2</sub>e) to 260 MTCO<sub>2</sub>e or 40 percent from 1990 levels. After accounting for projected growth of approximately 0.8 percent per year an average decrease of 5.2 percent per year from the State GHG inventory will be required to achieve the target. The 2017 Scoping Plan Update includes a strategy for achieving the needed reductions, but does not identify an amount required specifically from new development. However, all GHG emission sources within development projects are subject to GHG regulations at some level.

The quantitative analysis prepared for the Project (summarized in **Table 3.8-3**) assesses the extent to which the Project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting under Consideration # 1. As the Project is a new facility, there are no baseline activities in which to compare the Project to; as such, Project emissions are evaluated at the proposed Air District permit limits and represent the total increase in emissions. The analysis assumes a worst-case emissions scenario in which the Project would reach the permit limit in its first year of operation and reflects compliance with existing regulations that apply to the Project.

The Tulare County CAP includes a threshold approach that complies with Consideration #2 for commercial and residential development based on a percent reduction from BAU in 2030, but it is not applicable to asphalt and concrete production industries. The CAP found that additional reductions from industrial sources beyond regulations would not be required to reach the 2030 target since those emissions were subject to regulation by other entities such as Cap-and-Trade, which applies to 80 percent of the State's GHG emission inventory. .

Operational or long-term emissions occur over the life of the Project. Sources of emissions include the HMA, RAP, and concrete batch plants, motor vehicles and trucks, energy usage, waste generation, and area sources. Operational emissions were modeled for the permitted throughput limit, which reflects a worst-case emissions scenario. The emissions were modeled in 2020 using CalEEMod and spreadsheet calculations using the EMFAC mobile



source emission model and EPA emission factors. CalEEMod assumes compliance with some, but not all, applicable rules and regulations regarding energy efficiency, vehicle fuel efficiency, renewable energy usage, and other GHG reduction policies, as described in the CalEEMod User's Guide.

Full assumptions and model outputs are provided in the Health Risk Assessment report, Authority to Construct Applications, and Greenhouse Gas Analysis memo prepared by Alta Environmental (Appendix A of the DEIR), and the CalEEMod report included as Attachment A of this memo. The results of the GHG analysis for the Project operational emissions are presented in **Table 3.8-3**.

<b>Table 3.8-3. Project Greenhouse Gas Emissions</b>	
<b>Source</b>	<b>Emissions (MTCO<sub>2</sub>e per year)</b>
<b>Construction</b>	
On-site Emissions <sup>1</sup>	325
Off-site Emissions <sup>1</sup>	585
<b>Total Construction</b>	<b>909</b>
<b>On-Site Operations</b>	
HMA Dryer <sup>2</sup>	36,391
HMA Oil Heater <sup>2</sup>	539
On-site Haul Trucks <sup>2</sup>	257
On-site Off-Road Equipment <sup>2</sup>	698
Area Sources <sup>1</sup>	0.01
Energy <sup>1</sup>	45
Waste <sup>1</sup>	31
Water <sup>1</sup>	16
<b>Total On-Site Operations</b>	<b>37,977</b>
<b>Off-Site Operations</b>	
Off-site Haul Trucks <sup>3</sup>	4,485
Employee Vehicles <sup>3</sup>	118
<b>Total Off-Site Operations</b>	<b>4,604</b>
<b>Total Operations</b>	<b>43,490</b>
Notes: MTCO <sub>2</sub> e = metric tons of carbon dioxide equivalents. 1 Source:Health Risk Assessment (Attachment 2) prepared by Alta Environmental. Operational mobile sources not included as they were included in the calculations in Attachment A of this analysis. 2 Source:Greenhouse Gas Analysis memo prepared by Alta Environmental. 3 Source:Attachment A of this memo.	

As shown in **Table 3.8-3**, the Project would result in GHG emissions of 43,490 MTCO<sub>2</sub>e per year. The modeling includes the benefits of existing regulations that reduce Project emissions. The analysis presented above does not include new strategies proposed in the 2030 Scoping Plan Update. The Update provides alternatives in terms of their likelihood of implementation and ranges of reduction from the strategies. Measures already authorized by legislation are highly likely to be implemented, while measures requiring new legislation are less likely to go forward. A new round of motor vehicle fuel efficiency standards beyond 2025 when LEV III standards are at their maximum reduction level is highly likely.



Changing heavy-duty trucks and off-road equipment to alternative fuels face greater technological hurdles and are less likely to provide dramatic reductions by 2030.

The 2030 emission limit is 260 MMTCO<sub>2</sub>e. The ARB estimates that the 2030 BAU (reference) Inventory will be 392 MMTCO<sub>2</sub>e—a reduction of 132 MMTCO<sub>2</sub>e, including existing policies and programs but not including known commitments that are already underway. The 2030 Scoping Plan Update includes the estimated GHG emissions by sector compared with 1990 levels that is presented in **Table 3.8-4**. The proposed plan would achieve the bulk of the reductions from Electric Power, Industrial fuel combustion, and Transportation. Cap-and-Trade would provide between 10 to 20 percent of the required reductions depending on the amounts achieved by the other reduction measures.

<b>Table 3.8-4</b> <b>2030 Scoping Plan Update Estimated Change in GHG Emissions by Sector</b>			
<b>Scoping Plan Sector</b>	<b>Emissions (MMTCO<sub>2</sub>e per year)</b>		
	<b>1990</b>	<b>2030 Proposed Plan Ranges</b>	<b>Percent Change from 1990</b>
Agriculture	26	24-25	-4 to -8
Residential and Commercial	44	38-40	-9 to -14
Electric Power	108	42-62	-43 to -61
High GWP	3	8-11	167 to 267
Industrial	98	77-87	-11 to -21
Recycling and Waste	7	8-9	14 to 29
Transportation (including TCU)	152	103-111	-27 to -32
Net Sink	-7	TBD	TBD
<b>Subtotal</b>	<b>431</b>	<b>300-345</b>	<b>-20 to -30</b>
Cap-and-Trade Program	N/A	40-85	N/A
<b>Total</b>	<b>431</b>	<b>260</b>	<b>-40</b>
<i>Notes:</i> GWP = Global Warming Potential; TCU = Transportation Communications and Utilities Source: ARB 2030 Scoping Plan Update			

Although the 2030 Scoping Plan Update focuses on state agency actions necessary to achieve the 2030 GHG limit, the ARB considers local governments essential partners in achieving the State's goals to reduce GHG emissions. The 2030 target will require an increase in the rate of emission reductions compared to what was needed to achieve the 2020 limit, and this will require action and collaboration at all levels, including local government action to complement and support State-level actions. For individual projects, the 2030 Scoping Plan Update suggests that all new land use development implement all feasible measures to reduce GHG emissions. The Scoping Plan does not define all feasible measures or attribute an amount of reductions required from new development beyond compliance with regulations; however, the CAP provides measures and reduction amounts that are feasible for commercial and residential development. No reduction amount or threshold was developed for industrial projects. Requiring the project operator to fully mitigate emissions without accounting for compliance with regulations would result in double mitigation, first by the regulated entity and then by the project operator purchasing electricity, fuel, and vehicles compliant with



regulations in effect at the time of purchase and beyond that would violate constitutional nexus requirements.

Based on progress achieved to date and the strong likelihood that the measures included in the 2017 Scoping Plan Update will be implemented, it is reasonable to conclude that the Project is consistent with the 2017 Scoping Plan and will contribute a reasonable fair-share contribution to achieving the 2030 target. The fair share may very well be achieved through compliance with increasingly stringent State regulations that apply to energy production, fuels, and motor vehicles. As shown in **Table 3.8-4**, the state strategy relies on the Cap-and-Trade Program to make up any shortfalls that may occur from the other regulatory strategies. The costs of Cap-and-Trade emission reductions will ultimately be passed on to the consumers of fuels, electricity and products produced by regulated industries, which includes the project and other purchasers of products and services. Therefore, the impact in terms of Considerations #1 and #2 would be less than significant.

As discussed above, the Project will result in GHG emissions from the construction of the Project and from the operations of the proposed production facilities (HMA, RAP and concrete plants), office (heating and cooling, cleaning supplies, etc.) as well as from on-site off-road equipment and off-site on-road vehicles (haul trucks for transport of raw material and finished product, outside services and deliveries, and employees trips). The Project will continue to comply with existing and future regulations, including the Cap-and-Trade program, State truck regulations, and Air District permit requirements, and the General Plan, Community Plan, and CAP will continue to be implemented through 2030. Therefore, ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. The Project-related emissions would be considered to have a significant cumulative impact if project-specific impacts are determined to be significant. The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. The Project-related emissions would be considered to have a significant cumulative impact if project-specific impacts are determined to be significant. As previously noted, the Project is required to comply with applicable State GHG reduction program (including Cap-and-Trade and truck regulations) and is therefore, consistent with the reduction targets for years 2020 and 2030. As the proposed Project would result in Less Than Significant Project-specific Impacts, ***Less Than Significant Cumulative Impacts*** would also occur.

Mitigation: ***None Required.***

Conclusion: ***Less Than Significant Impact***

As previously noted, the Project is consistent with the State's reduction targets established for 2020 and 2030. As such, the Project would not generate GHG emissions that would have



a significant impact on the environment. *Less Than Significant Project-specific and Cumulative Impacts* related to this Checklist Item will occur.

**b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

Project Impact Analysis:

*Less Than Significant Impact*

To be considered a less than significant impact, the Project must demonstrate consistency with the Tulare County CAP, the Air District's Climate Change Action Plan, and the ARB's 2008 Scoping Plan and 2017 Scoping Plan Update.

**Tulare County CAP:** The 2008 CAP identifies General Plan policies in place to assist the County in reducing GHG emissions. **Table 3.8-5** identifies these policies by policy titles. For a discussion of the benefits of the policies, refer to the CAP.<sup>45</sup> The Project will implement the applicable General Plan policies.

Table 3.8-5 General Plan Policies Having Greenhouse Gas Emission Reductions			
Sustainability and Greenhouse Gas Emissions			
PF-1.1	Maintain Urban Edges	ERM-1.2	Development in Environmentally Sensitive Areas
PF-1.2	Location of Urban Development	ERM-1.3	Encourage Cluster Development
PF-1.3	Land Uses in UDBs/HDBs	ERM-1.4	Protect Riparian Management Plans and Mining Reclamation Plans
PF-1.4	Available Infrastructure	ERM-1.6	Management of Wetlands
AG-1.7	Conservation Easements	ERM-1.7	Planting of Native Vegetation
AG-1.8	Agriculture Within Urban Boundaries	ERM-1.8	Open Space Buffers
AG-1.11	Agricultural Buffers	ERM-1.14	Mitigation and Conservation Banking Program
AG-1.14	Right to Farm Noticing	ERM-4.1	Energy Conservation and Efficiency Measures
AG-2.11	Energy Production	ERM-4.2	Streetscape and Parking Area Improvements for Energy Conservation
AG-2.6	Biotechnology and Biofuels	ERM-4.3	Local and State Programs
AQ-1.6	Purchase of Low Emission/Alternative Fuel Vehicles	ERM-4.4	Promote Energy Conservation Awareness
AQ-1.7	Support Statewide Global Warming Solutions	ERM-4.6	Renewable Energy
AQ-1.8	Greenhouse Gas Emissions Reduction Plan	ERM-4.7	Reduce Energy Use in County Facilities**
AQ-1.9	Off-Site Measures to Reduce Greenhouse Gas Emissions*	ERM-4.8	Energy Efficiency Standards**
AQ-1.10	Alternative Fuel Vehicle Infrastructure**	ERM-5.1	Parks as Community Focal Points
AQ-2.1	Transportation Demand Management Programs	ERM-5.6	Location and Size Criteria for Parks
AQ-2.3	Transportation and Air Quality	ERM-5.15	Open Space Preservation
AQ-2.4	Transportation Management Associations		
AQ-2.5	Ridesharing		
AQ-3.1	Location of Support Services		
AQ-3.2	Infill Near Employment		
AQ-3.3	Street Design		
AQ-3.5	Alternative Energy Design		

<sup>45</sup> Tulare County. Climate Action Plan (2010). Accessed November 2019 at: <http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/ClimateActionPlan.pdf>; and Climate Action Plan Update (2018) at: <http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/220Climate%20Action%20Plan/CLIMATE%20ACTION%20PLAN%202018%20UPDATE.pdf>.



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Table 3.8-5 General Plan Policies Having Greenhouse Gas Emission Reductions			
Sustainability and Greenhouse Gas Emissions			
AQ-3.6	Mixed Use Development	HS-1.4	Building and Codes
LU-1.1	Smart Growth and Healthy Communities	TC-2.1	Rail Service
LU-1.2	Innovative Development	TC-2.4	High Speed Rail (HSR)
LU-1.3	Prevent Incompatible Uses	TC-2.7	Rail Facilities and Existing Development*
LU-1.4	Compact Development	TC-4.4	Nodal Land Use Patterns that Support Public Transit
LU-1.8	Encourage Infill Development	TC-5.1	Bicycle/Pedestrian Trail System
LU-2.1	Agricultural Lands	TC-5.2	Consider Non-Motorized Modes in Planning and Development
LU-3.2	Cluster Development	TC-5.3	Provisions for Bicycle Use
LU-3.3	High-Density Residential Locations	TC-5.4	Design Standards for Bicycle Routes
LU-4.1	Neighborhood Commercial Uses	TC-5.5	Facilities
LU-7.1	Distinctive Neighborhoods	TC-5.6	Regional Bicycle Plan
LU-7.2	Integrate Natural Features	TC-5.7	Designated Bike Paths
LU-7.3	Friendly Streets	TC-5.8	Multi-Use Trails
LU-7.15	Energy Conservation	PFS-1.3	Impact Mitigation
ED-2.3	New Industries	PFS-1.15	Efficient Expansion
ED-2.8	Jobs/Housing Ratio	PFS-2.1	Water Supply
ED-5.9	Bikeways	PFS-2.2	Adequate Systems
ED-6.1	Revitalization of Community Centers	PFS-3.3	New Development Requirements
ED-6.2	Comprehensive Redevelopment Plan	PFS-5.3	Solid Waste Reduction
ED-6.3	Entertainment Venues	PFS-5.4	County Usage of Recycled Materials and Products
ED-6.4	Culturally Diverse Business	PFS-5.5	Private Use of Recycled Products
ED-6.5	Intermodal Hubs for Community and Hamlet Core Areas	PFS-8.3	Location of School Sites
ED-6.7	Existing Commercial Centers	PFS-8.5	Government Facilities and Services
SL-3.1	Community Centers and Neighborhoods	WR-1.5	Expand Use of Reclaimed Wastewater
ERM-1.1	Protection of Rare and Endangered Species	WR-1.6	Expand Use of Reclaimed Water
		WR-3.5	Use of Native and Drought Tolerant Landscaping
<p>Source: Tulare County Climate Action Plan, Table 20.</p> <p>* This GHG reduction policy is not included in the Tulare County CAP, but is included in the Tulare County General Plan 2030 Update.</p> <p>** This GHG reduction policy is not included in Table 20 of the CAP, but it is included in the detailed list of policies provided within pages 64-77 of the CAP.</p>			

As previously discussed, the 2018 CAP Update address SB 32 2030 targets and ARB's 2017 Scoping Plan and focuses on residential and commercial development and CAP reduction targets are not intended for Industrial process emissions since they are subject to Cap-and-Trade. No asphalt or concrete industry-specific local measures are included in the CAP; however, the Project will comply State regulations that apply to fuels used by Project trucks and equipment, vehicle emission standards, and electricity consumed by the Project that will reduce Project emissions. As the Air District is a Responsible Agency for this Project, the Project would be expected to implement applicable BPS as included in the Air District's policies and guidelines on the processes and stationary equipment that emit greenhouse gases to levels that meet or exceed state targets and may be subject to Cap-and-Trade Program requirements. Therefore, ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.



***Air District Climate Change Action Plan:*** The Air District adopted the Climate Change Action Plan (CCAP) in 2008, which included a carbon-exchange bank for voluntary GHG reductions.<sup>46</sup> The Carbon Exchange Program is not applicable to this Project, and the Project would not require Voluntary Greenhouse Gas Mitigation Agreements. The Project would comply with all applicable GHG regulations contained in the CCAP. ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

***State Scoping Plans:*** The 2018 CAP Update includes an additional method of determining project consistency with the CAP and 2030 targets. Projects subject to CEQA review could use a checklist containing design features and measures that are needed to determine consistency with the CAP. As shown in **Table 3.8-6**, the Project is consistent with most of the strategies, while others are not applicable to the Project. As discussed earlier, the 2017 Scoping Plan Update strategies primarily rely on increasing the stringency of existing regulations for which the project would continue to comply with and support through the project's design and implementation of the General Plan goals and policies.

<b>Table 3.8-6. Consistency with the 2017 Scoping Plan Update</b>	
<b>Scoping Plan Measure</b>	<b>Project Consistency</b>
<b>SB 350 50% Renewable Mandate.</b> Utilities subject to the legislation will be required to increase their renewable energy mix from 33% in 2020 to 50% in 2030.	<b>Consistent.</b> The Project will purchase electricity from a utility subject to the SB 350 Renewable Mandate.
<b>SB 350 Double Building Energy Efficiency by 2030.</b> This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels	<b>Not Applicable.</b> This measure applies to existing buildings. The Project will utilize the existing residential unit as an office and does not include new structures.
<b>Low Carbon Fuel Standard.</b> This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	<b>Consistent.</b> Vehicles accessing the Project site will use fuel containing lower carbon content as the fuel standard is implemented.
<b>Mobile Source Strategy (Cleaner Technology and Fuels Scenario).</b> Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	<b>Consistent.</b> The Project will purchase new work trucks when replacement is required and employees can be expected to purchase increasing numbers of more fuel-efficient and zero emission cars and trucks each year.
<b>Sustainable Freight Action Plan.</b> The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	<b>Not Applicable.</b> The measure applies to owners and operators of trucks and freight operations. The Project does operate a haul truck fleet to transport both raw materials and final product. The haul trucks that access the site must be capable of handling heavy loads that are currently not feasible with zero emission technology. However, during the life of the Project, ZEV haul trucks may be possible.
<b>Short-Lived Climate Pollutant (SLCP) Reduction Strategy.</b> The strategy requires the reduction of SLCPs	<b>Not Applicable.</b> The Project does not include sources that produce significant quantities of

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<sup>46</sup> SJVAPCD Climate Change Action Plan. Accessed November 2019 at: [http://www.valleyair.org/Programs/CCAP/CCAP\\_menu.htm](http://www.valleyair.org/Programs/CCAP/CCAP_menu.htm).



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<b>Table 3.8-6. Consistency with the 2017 Scoping Plan Update</b>	
<b>Scoping Plan Measure</b>	<b>Project Consistency</b>
by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	methane or black carbon. Diesel haul trucks accessing the site will achieve significant reductions in PM <sub>2.5</sub> with adopted regulations that will reduce this source of black carbon.
<b>SB 375 Sustainable Communities Strategies.</b> Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled.	<b>Not Applicable.</b> The Project is not within an SCS priority area and so is not subject to requirements applicable to those areas. Only 15-20 employees will be required for this Project.
<b>Post-2020 Cap-and-Trade Program.</b> The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	<b>Consistent.</b> The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased costs of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA Projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.
<b>Natural and Working Lands Action Plan.</b> The ARB is working in coordination with several other agencies at the federal, state, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	<b>Not Applicable.</b> The Project is an asphalt and concrete production facility that is not suitable site for sequestration.
Source: ARB, 2017 Scoping Plan Update	

As discussed above, since the Project will comply with existing and future regulations, and the General Plan and CAP will continue to be implemented through 2030, the Project would not result in significant greenhouse gas impacts. Therefore, ***Less Than Significant Cumulative Impacts*** related to this Checklist Item will occur.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. As previously discussed, the Project is consistent with the applicable Scoping Plan reductions measures and the Air District's CCAP. The Project will implement applicable Tulare County



General Plan and Tulare County CAP policies. As such, the Project will not conflict with applicable state, regional, and local plans, policies or regulation adopted for the purpose of reducing the emissions of greenhouse gases. ***Less Than Significant Cumulative Impacts*** related to this Checklist Item will occur.

Mitigation Measures:

***None Required***

Conclusion:

***Less Than Significant Impact***

As the proposed Project is consistent with aforementioned plans, policies, and regulations, ***Less Than Significant Project-specific and Cumulative Impacts*** related to this Checklist Item would occur.



## DEFINITIONS

**Achieved-in-Practice:** “Any equipment, technology, practice or operation available in the United States that has been installed and operated or used at stationary source site for a reasonable period of time sufficient to demonstrate that the equipment, technology, practice or operation is reliable when operated in a manner that is typical for the process. In determining whether equipment, technology, practice or operation is Achieved-in-Practice, the District will consider the extent to which grants, incentives or other financial subsidies influence the economic feasibility of its use.”<sup>47</sup>

**Approved Alternate Technology:** “Any District approved, Non-Achieved-in-Practice GHG emissions reduction measure equal to or exceeding the GHG emission reduction percentage for a specific BPS.”<sup>48</sup>

**Baseline:** “The three year average (2002-2004) of GHG emissions for a type of equipment or operation within an identified class and category, expressed as annual GHG emissions per unit.”<sup>49</sup>

**Best Performance Standard:** “For a specific Class and Category, the most effective, District approved, Achieved-In-Practice means of reducing or limiting GHG emissions from a GHG emissions source, that is also economically feasible per the definition of Achieved-in-Practice. BPS includes equipment type, equipment design, and operational and maintenance practices for the identified service, operation, or emissions unit class and category.”<sup>50</sup>

**Business-as-Usual:** “The emissions for a type of equipment or operation within an identified class and category projected for the year 2020, assuming no change in GHG emissions per unit of activity as established for the baseline period.”<sup>51</sup> “Total baseline emissions for all emissions sources within the development type, projected for the year 2020, assuming no change in GHG emissions per unit of activity as established for the baseline period, 2002-2004. To relate BAU to an emissions generating activity, the District proposes to establish emission factors per unit of activity, for each class and category, using the 2002-2004 baseline period as the reference.”<sup>52</sup>

**Category:** “A District approved subdivision within a “class” as identified by unique operational or technical aspects.”<sup>53</sup>

**Class:** “The broadest District approved division of stationary GHG sources based on fundamental type of equipment or industrial classification of the source operation.”<sup>54</sup>

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<sup>47</sup> San Joaquin Valley Air Pollution Control District, Policy APR 2005: Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency. Page 6.

<sup>48</sup> Ibid. 6 to 7

<sup>49</sup> Op. Cit. 7

<sup>50</sup> Op. Cit.

<sup>51</sup> Op. Cit.

<sup>52</sup> San Joaquin Valley Air Pollution Control District, FACT SHEET: Addressing Greenhouse Gas Emission Impacts under the California Environmental Quality Act (CEQA). Page 1.

<sup>53</sup> District Policy, Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency. Page 7.



**Global Warming:** “Global warming is an increase in the temperature of the Earth’s troposphere. Global warming has occurred in the past as a result of natural influences, but the term is most often used to refer to the warming predicted by computer models to occur as a result of increased emissions of greenhouse gases.”<sup>55</sup>

**Greenhouse Gas:** “Greenhouse gas (GHG) emissions are the release of any gas that absorbs infrared radiation in the atmosphere. Generally when referenced in terms of global climate they are considered to be harmful. Greenhouse gases include, but are not limited to, water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrochlorofluorocarbons (HCFCs), ozone (O<sub>3</sub>), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>).”<sup>56</sup>

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<sup>54</sup> Op. Cit.

<sup>55</sup> General Plan 2030 Update Background Report. Page 6-3.

<sup>56</sup> Ibid. 6-3.



District Policy APR 2005: Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency. Website:

[http://www.valleyair.org/policies\\_per/Policies/APR2005.pdf](http://www.valleyair.org/policies_per/Policies/APR2005.pdf).

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[https://www.valleyair.org/Programs/CCAP/bps/Fact\\_Sheet\\_Development\\_Sources.pdf](https://www.valleyair.org/Programs/CCAP/bps/Fact_Sheet_Development_Sources.pdf).

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[09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf](http://www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf).

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# Hazards and Hazardous Materials

## Chapter 3.9

### SUMMARY OF FINDINGS

The proposed Project will result in *Less Than Significant Impact With Mitigation* related to Hazards and Hazardous Materials. A detailed review of potential impacts is provided in the following analysis.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts to Hazards and Hazardous Materials. As required in Section 15126, all phases of the proposed project will be considered as part of the potential environmental impact.

As noted in Section 15126.2 (a), “[a]n EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.”<sup>1</sup>

The “Environmental Setting” provides a description of the Hazards and Hazardous Materials in the County. The “Regulatory Setting” provides a description of applicable Federal, State and

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<sup>1</sup>CEQA Guidelines, Section 15126.2 (a).



Local regulatory policies that were developed in part from information contained in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and/or Tulare County 2030 General Plan EIR incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the proposed Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

#### Thresholds of Significance

- Create a significant hazard
- Located within one-quarter mile of an existing or proposed school
- Located on a list of hazardous materials sites
- Located within an airport land use plan
- Located within the vicinity of a private airstrip
- Interfere adopted emergency response plan or emergency evacuation plan
- Wildland Fire Risk

### **ENVIRONMENTAL SETTING**

“A hazardous material is defined by the California Code of Regulations (CCR) as a substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating, illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of (CCR, Title 22, Division 4.5, Chapter 10, Article 2, Section 66260.10).”<sup>2</sup>

“Hazardous wastes are hazardous materials that no longer have practical use, such as substances that have been discarded, discharged, spilled, contaminated, or are being stored prior to proper disposal. According to Title 22 of the CCR, hazardous materials and hazardous wastes are classified according to four properties: toxic, ignitable, corrosive, and reactive (CCR, Title 22, Chapter 11, Article 3).”<sup>3</sup>

#### Hazardous Waste Shipments Originating Within Tulare County

“In 2007, the DTSC Hazardous Waste Tracking System (HWTS) manifest data reports that approximately 5,925 tons of hazardous waste was transported from all categories of generators in Tulare County. As of November 2008, hazardous waste data available for 2008 indicated that approximately 7,160 tons of hazardous waste was generated in the county (DTSC, 2008a)”<sup>4</sup> The

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<sup>2</sup> Tulare County General Plan 2030 Update Background Report. Page 8-26. Accessed June 2019 at: <http://generalplan.co.tulare.ca.us/documents.html>.

<sup>3</sup> Ibid. Pages 8-26.

<sup>4</sup> Op. Cot. Page 8-37.



quantities of hazardous waste transported from facilities located within each zip code in Tulare County are shown in the **Table 3.9-1**.

<b>Table 3.9-1</b>							
<b>Transport of Hazardous Waste<sup>5</sup></b>							
<b>Zip Code</b>	<b>Total Tons</b>	<b>Zip Code</b>	<b>Total Tons</b>	<b>Zip Code</b>	<b>Total Tons</b>	<b>Zip Code</b>	<b>Total Tons</b>
93219	0.579	93221	19.100	93223	14.73	93227	6.792
93244	4.270	93247	36.370	93256	14.39	93257	155.000
93262	0.459	93271	4.463	93272	17.78	93274	146.700
93275	14.870	93277	407.80	93279	52.01	93286	7.152
93291	321.700	93292	25.600	93615	2.606	93618	139.100
93631	321.700	93647	65.630	93654	4.255	93673	4.915

#### Environmental Health Department Futures Assessment

“The Environmental Health Department [EHD], of which the CUPA is a part, anticipates a slight increase in the reported volume of hazardous waste generated within Tulare County in year 2003/04. However, EHD does not expect an increase in the actual volume of hazardous waste generated over the same period.”<sup>6</sup>

## **REGULATORY SETTING**

### ***Federal Agencies & Regulations***

#### Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act of 1975 (HMTA) as amended, is the major transportation-related statute affecting DOE. The objective of the HMTA according to the policy stated by Congress is ". . .to improve the regulatory and enforcement authority of the Secretary of Transportation to protect the Nation adequately against risks to life and property which are inherent in the transportation of hazardous materials in commerce." The HMTA empowered the Secretary of Transportation to designate as hazardous material any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property."

Regulations apply to ". . .any person who transports, or causes to be transported or shipped, a hazardous material; or who manufactures, fabricates, marks, maintains, reconditions, repairs, or tests a package or container which is represented, marked, certified, or sold by such person for use in the transportation in commerce of certain hazardous materials."<sup>7</sup>

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<sup>5</sup> Tulare County General Plan 2030 Update Draft 2008 Background Report. Page 8-31.

<sup>6</sup> Ibid. 8-32.

<sup>7</sup> U.S. Department of Energy, The Office of Health, Safety and Security, <https://energy.gov/ehss/environment-health-safety-security>. Accessed March 2019.



### Superfund

“Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), commonly referred to as “Superfund”, was enacted on December 11, 1980. The purpose of CERCLA was to provide authorities with the ability to respond to uncontrolled releases of hazardous substances from inactive hazardous waste sites that endanger public health and the environment. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at such sites, and established a trust fund to provide for cleanup when no responsible party could be identified. Additionally, CERCLA provided for the revision and republishing of the National Contingency Plan (NCP) that provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also provides for the National Priorities List, a list of national priorities among releases or threatened releases throughout the United States for the purpose of taking remedial action.”<sup>8</sup>

### Superfund Amendments and Reauthorization Act (SARA)

“Superfund Amendments and Reauthorization Act SARA amended CERCLA on October 17, 1986. This amendment increased the size of the Hazardous Response Trust Fund to \$8.5 billion, expanded EPA’s response authority, strengthened enforcement activities at Superfund sites; and broadened the application of the law to include federal facilities. In addition, new provisions were added to the law that dealt with emergency planning and community right to know. SARA also required EPA to revise the Hazard Ranking System to ensure that the system accurately assesses the relative degree of risk to human health and the environment posed by sites and facilities subject to review for listing on the National Priorities List.”<sup>9</sup>

### ***State Agencies & Regulations***

#### Hazardous Substance Account Act (1984), California Health and Safety Code Section 25300 ET SEQ (HSAA)

“This act, known as the California Superfund, has three purposes: 1) to respond to releases of hazardous substances; 2) to compensate for damages caused by such releases; and 3) to pay the state’s 10 percent share in CERCLA cleanups. Contaminated sites that fail to score above a certain threshold level in the EPA’s ranking system may be placed on the California Superfund list of hazardous wastes requiring cleanup.”<sup>10</sup>

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<sup>8</sup> Tulare County General Plan 2030 Update Background Report. Page 8-27.

<sup>9</sup> Ibid. Page 8-27.

<sup>10</sup> Op. Cit. Page 8-28 to 8-29.



California Environmental Protection Agency (Cal/EPA) Department of Toxic Substance Control (DTSC)

“Cal/EPA has regulatory responsibility under Title 22 of the California Code of Regulations (CCR) for administration of the state and federal Superfund programs for the management and cleanup of hazardous materials. The DTSC is responsible for regulating hazardous waste facilities and overseeing the cleanup of hazardous waste sites in California. The Hazardous Waste Management Program (HWMP) regulates hazardous waste through its permitting, enforcement and Unified Program activities. HWMP maintains the EPA authorization to implement the RCRA program in California, and develops regulations, policies, guidance and technical assistance/ training to assure the safe storage, treatment, transportation and disposal of hazardous wastes. The State Regulatory Programs Division of DTSC oversees the technical implementation of the state’s Unified Program, which is a consolidation of six environmental programs at the local level, and conducts triennial reviews of Unified Program agencies to ensure that their programs are consistent statewide and conform to standards.”<sup>11</sup>

California Occupational Safety and Health Administration (Cal/OSHA)

“Cal/OSHA and the Federal OSHA are the agencies responsible for assuring worker safety in the handling and use of chemicals in the workplace. Pursuant to the Occupational Safety and Health Act of 1970, Federal OSHA has adopted numerous regulations pertaining to worker safety, contained in the Code of Federal Regulations Title 29 (29 CFR). These regulations set standards for safe workplaces and work practices, including standards relating to hazardous material handling. Cal/OSHA assumes primary responsibility for developing and enforcing state workplace safety regulations. Because California has a federally General Plan Background Report December 2007 approved OSHA program, it is required to adopt regulations that are at least as stringent as those identified in 29 CFR. Cal/OSHA standards are generally more stringent than federal regulations.”<sup>12</sup>

Hazardous Materials Transport Regulations

“California law requires that Hazardous Waste (as defined in California Health and Safety Code Division 20, Chapter 6.5) be transported by a California registered hazardous waste transporter that meets specific registration requirements. The requirements include possession of a valid Hazardous Waste Transporter Registration, proof of public liability insurance, which includes coverage for environmental restoration, and compliance with California Vehicle Code registration regulations required for vehicle and driver licensing.”<sup>13</sup>

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<sup>11</sup> Ibid. 8-29.

<sup>12</sup> Ibid. 8-30 and 8-31.

<sup>13</sup> Ibid. 8-31.



### Cal/EPA Cortese List

“The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List" (after the Legislator who authored the legislation that enacted it). The list, or a site's presence on the list, has bearing on the local permitting process as well as on compliance with the California Environmental Quality Act (CEQA).”<sup>14</sup> The Cortese List identifies the following:

- Hazardous Waste and Substance Sites
- Cease and desist order Sites
- Waste Constituents above Hazardous Waste Levels outside the Waste Management Unit Sites
- Leaking Underground Tank (LUST) Cleanup Sites
- Other Cleanup Sites
- Land Disposal Sites
- Military Sites
- WDR Sites
- Permitted Underground Storage Tank (UST) Facilities Sites
- Monitoring Wells Sites
- DTSC Cleanup Sites
- DTSC Hazardous Waste Permit Sites

### ***Local Policy & Regulations***

#### Tulare County Environmental Health Division

“The mission of the Division of Environmental Health is to enhance the quality of life in Tulare County through implementation of environmental health programs that protect public health and safety as well as the environment. We accomplish this goal by overseeing and enforcing numerous different programs, from food facility inspections to hazardous waste. All of our inspectors are licensed and/or certified in the field that they practice in and participate in continuing education to maintain licensure.”<sup>15</sup>

#### Hazardous Materials/Certified Unified Program Agency (CUPA)

“The California Environmental Protection Agency designated the Tulare County Environmental Health as the CUPA for Tulare County. The role of the CUPA is to assure consolidation, consistency and coordination of the hazardous materials programs within the County”<sup>16</sup>.

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<sup>14</sup> Cal/EPA Cortese List background, <http://www.calepa.ca.gov/sitecleanup/corteselist/Background.htm>. Accessed March 2019.

<sup>15</sup> Tulare County Health and Human Services Agency, 2018. Environmental Health Division. Who Are We. Accessed March 2019 at: <https://tularecountyeh.org/eh/index.cfm/about-us/who-are-we/>

<sup>16</sup> Tulare County Health and Human Services Agency, 2018. Hazardous Materials (CUPA) Hazardous Materials/Certified Unified Program Agency (CUPA). Accessed March 2019 at: <https://tularecountyeh.org/eh/index.cfm/our-services/hazardous-materials-cupa/>

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“The Tulare County Division of Environmental Health is responsible for overseeing the six hazardous materials programs in the County. The Tulare County Division of Environmental Health is responsible for inspecting facilities that handle hazardous materials, generate hazardous waste, treat hazardous waste, own/operate underground storage tanks, own/operate aboveground petroleum storage tanks, or handle other materials subject to the California Accidental Release Program.”<sup>17</sup>

#### Tulare County/Operational Area Emergency Operations Plan

“The Tulare County Office of Emergency Services (OES) is Tulare County's comprehensive emergency management program. The discipline of emergency management aims to create partnerships, plans, and systems to build capabilities and coordinate the efforts of government, industry, and voluntary organizations in all phases of an emergency.

The activities of Tulare County OES can be categorized under the four phases of the emergency management cycle: Preparedness, Response, Recovery, and Mitigation. The day-to-day activities of the program center around Preparedness and Mitigation phases, in order to combat potential hazards and minimize community impacts during the Response and Recovery phases. The following descriptions offer more detail about the activities in each phase of emergency management.

##### *Preparedness*

- Public Education
- Training & Exercise for responders
- Grants for public safety & health agencies

##### *Response*

Tulare County OES maintains the Emergency Operations Center (EOC) for the County and Operational Area. Tulare County OES also administers the AlertTC notification system and WebEOC crisis information management system.

##### *Recovery*

After the emergency is over, there is still considerable work to be done to help the community return to a pre-disaster state. Recovery often takes several years, perhaps even decades, to fully complete.

##### *Mitigation*

Mitigation is the process by which hazards and vulnerabilities are identified, and measures taken to decrease the potential for occurrence of the hazard, the vulnerability to the hazard

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<sup>17</sup> Ibid.



should it occur, or both. Tulare County Office of Emergency Services implements the 2011 Tulare County Hazard Mitigation Plan.”<sup>18</sup>

### Multi-Jurisdictional Local Hazard Mitigation Plan

Tulare County has prepared the 2017 Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP) to assess the natural, technological, and human-caused risks to County communities, to reduce the potential impact of the hazards by creating mitigation strategies. The 2017 MJLHMP represents the County’s commitment to create a safer, more resilient community by taking actions to reduce risk and by committing resources to lessen the effects of hazards on the people and property of the County.<sup>19</sup> The MJLHMP was adopted in March 2018.

### Tulare County Fire Department

“The Emergency Services Division consists of over 400 career fire officers and Extra Help Paid On Call personnel who provide services 24 hours per day, seven days a week, year round from 27 community based fire stations. Tulare County Fire Department (TCFD) personnel respond to approximately 12,000 calls for service each year.

Services are provided to unincorporated communities, hamlets, and rural areas. Contract Fire Protection Services are provided to the City of Exeter and The Strathmore Fire Protection District. TCFD participates in the Statewide Mutual Aid system and maintains reciprocal agreements with local response organizations including incorporated Cities, neighboring Counties, and State & Federal Wildland agencies.

TCFD provides response to virtually every conceivable type of emergency situation. The “All Risk” emergency response functions include: Fire Suppression-Structural, Wildland, Vehicle; Agricultural and other type fires; Emergency Medical Services-Life Threatening and Emergency Medical Assists; Traffic and Industrial Accidents; Rescue-Water Rescue, Trench Rescue, Structural Collapse, Rope Rescue; Hazardous Conditions-Flammable/Chemical Spills & Leaks, Electrical & Flood & Severe Weather emergencies.”<sup>20</sup>

### Tulare County General Plan Policies

The General Plan has a number of policies that apply to projects within Tulare County. General Plan policies that relate to the proposed Project are listed as follows:

**HS-4.1 Hazardous Materials** - The County shall strive to ensure hazardous materials are used, stored, transported, and disposed of in a safe manner, in compliance with local, State, and

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<sup>18</sup> 2011 Tulare County Hazard Mitigation Plan. <http://oes.tularecounty.ca.gov/oes/index.cfm/mitigation/tulare-county-mjlhmp/>. Accessed March 2019.

<sup>19</sup> Tulare County 2017 Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP). March 2018. Page 1. Accessed March 2019 at: <http://oes.tularecounty.ca.gov/oes/index.cfm/mitigation/tulare-county-mjlhmp/>.

<sup>20</sup> Tulare County Fire Department, 2018. Emergency Services. Accessed March 2019 at: <http://tularecounty.ca.gov/fire/index.cfm/services/emergency-services/>



Federal safety standards, including the Hazardous Waste Management Plan, Emergency Operations Plan, and Area Plan.

**HS-4.3 Incompatible Land Uses** - The County shall prevent incompatible land uses near properties that produce or store hazardous waste.

**HS-4.4 Contamination Prevention** - The County shall review new development proposals to protect soils, air quality, surface water, and groundwater from hazardous materials contamination.

## IMPACT EVALUATION

### Would the project:

- a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Project Impact Analysis:

*Less Than Significant With Mitigation*

#### *Construction*

Construction-related activities associated with construction of new or improvements to future/existing offices, installation of fencing, landscaping, paving, etc. would require the use and transport of hazardous materials, including fuels, oils, and other chemicals (e.g., paints, adhesives, etc.) typically used during construction. It is likely that these hazardous materials and vehicles would be stored by the contractor(s) on-site during construction-related activities. Improper use and transportation of hazardous materials could result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. However, a Storm Water Pollution Prevention Plan (SWPPP) is required for the proposed Project and shall include emergency procedures for incidental hazardous materials releases. The SWPPP also includes Best Management Practices which includes requirements for hazardous materials storage. In addition, all use, storage, transport and disposal of hazardous materials during construction shall be performed in accordance with existing local, state and federal hazardous materials regulations.

#### *Operations*

Operation of the plant would require materials to be imported to the facility for use in asphalt production. The raw materials for the proposed Project operations will be brought in from the Porterville Rock mine (east of Porterville) and will consist of typical 3/8"- 5/8" crushed gravel. The gravel will be dumped on a conveyor and sent to the on-site stock piles. Recycled asphalt paving (RAP) will also be delivered to the site and crushed to a typical 3/8"- 5/8" size, then moved to stockpiles on the south end of the facility. The facility will also accept and recycled rubble and asphalt grindings, which are further ground up to a specified



thickness and used in the production of new asphalt. The aggregate will be loaded into the mixer, dried, mixed with oil and RAP, then placed on a conveyor to be sent into the storage silos. Silos are programmed to release a specific weight of asphalt into the trucks positioned under the silos. The process involves the use of potentially hazardous materials such as oils and fuels. These potentially hazardous project components are described below:

Liquefied Propane Gas/Natural Gas: The proposed Gencor's Ultraplant (asphalt production equipment) will be fueled using liquefied propane gas (LPG). As noted in the Chapter 3.6 Energy, the Project will rely on liquefied propane gas (LPG) which will be stored in an above-ground 30,000-gallon LPG storage tank and delivered to the site on an as needed basis. The LPG will be used to provide fuel to the Gencor plant, crushing plant, and asphalt storage silo. The LPG storage tank would be refilled on a routine basis using a propane tanker truck. Fuel is will be pumped directly into the LPG storage tank. A drip pan will be used during refueling to avoid spills to the surface. Any spills of LPG will be immediately removed and disposed of into a storage container for off-site disposal.

Asphalt Oil: The proposed project will utilize one 60,000-gallon above-ground asphalt oil storage tank[s] on site. The oil is used internally within the Gencor plant as a mixing agent for the dried aggregate. Delivery and refilling the tanks is performed by a tanker truck and pumped directly into the holding tanks. A drip pan will be used to avoid spills to the surface during the refilling process. Any spills of oil will be immediately removed and disposed of into a storage container for off-site disposal.

Fuel/Diesel: The proposed project will utilize a 16,000-gallon diesel fuel above-ground tank on site. This fuel tank will be used to fuel on-site equipment, water trucks, etc. Delivery and refilling the tank is performed by a tanker truck and pumped directly into the holding tank. A drip pan will be used to avoid spills to the surface during the refilling process. Any spills of fuel/diesel will be immediately removed and disposed of into a storage container for off-site disposal.

A Storm Water Pollution Prevention Plan (SWPPP) is required for the project and shall include emergency procedures for incidental hazardous materials releases. The SWPPP also includes Best Management Practices which includes requirements for hazardous materials storage. In addition, all use, storage, transport and disposal of hazardous materials during any construction-related activities shall be performed in accordance with existing local, state and federal hazardous materials regulations.

All businesses transporting, storing, using or disposing of hazardous materials (including wastes) must comply with applicable local, state and federal regulations for hazardous materials management. These include regulations and programs administered by the Tulare County Health & Human Services Agency, Environmental Health Services Division as well as other requirements of state and federal laws and regulations, including compliance with the Uniform Fire Code for hazardous material storage. This would result in a ***Less Than Significant Impact With Mitigation***.



All businesses transporting, storing, using or disposing of hazardous materials (including wastes) must comply with applicable local, state and federal regulations for hazardous materials management. These include regulations and programs administered by the Tulare County Health & Human Services Agency, Environmental Health Services Division as well as other requirements of state and federal laws and regulations, including compliance with the Uniform Fire Code for hazardous material storage. This impact will result in ***Less Than Significant Impact With Mitigation.***

Cumulative Impact Analysis: ***Less Than Significant Impact With Mitigation***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

With a ***Less Than Significant Project-specific Impact With Mitigation***, a ***Less Than Significant Cumulative Impact With Mitigation*** will also occur.

Mitigation: ***See Mitigation Measures 8-1 and 8-2***

- 8-1** The Project proponent shall prepare a Hazardous Materials Business Plan for review and approval by the Tulare County Health & Human Services Agency, Environmental Health Services Division. The Plan shall be in effect prior to issuance of a building permit for the proposed expansion.
- 8-2** Because the facility proposes an above ground storage capacity over 1,320 gallons of a petroleum based product, the site shall be required to prepare a Spill Prevention Control and Countermeasure (SPCC) plan in accordance with the U.S. Code of Federal Regulations, Title 40, Part 112 (40CFR112) prior to the final inspection of the building permit. The plan shall be submitted to the Tulare County Environmental Health Services Division. The applicant shall contact the TCEHSD's CUPA inspector at (559) 624-7400 for any additional questions.

Conclusion: Potential Project-specific impacts related to this Checklist Item will result in a ***Less Than Significant Impact With Mitigation.***

Potential Project-specific impacts related to this Checklist Item will result in a ***Less Than Significant Impact With Mitigation.***

- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

Project Impact Analysis: ***Less Than Significant Impact With Mitigation***

The proposed Project includes the use of potentially hazardous materials. Please refer to a full description of potentially hazardous materials in item a), above. As previously stated, the project



must comply with applicable local, state and federal regulations for hazardous materials management. These include regulations and programs administered by the Tulare County Health & Human Services Agency, Environmental Health Services Division as well as other requirements of state and federal laws and regulations, including compliance with the Uniform Fire Code for hazardous material storage. Further measures are outlined as ***Mitigation Measures 8-1*** and ***8-2***.

Conclusion: Project-specific impacts related to this Checklist item will be reduced to a ***Less Than Significant Impact With Mitigation***.

Cumulative Impact Analysis: ***Less Than Significant Impact With Mitigation***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

With a ***Less Than Significant Project-specific Impact With Mitigation***, a ***Less Than Significant Cumulative Impact With Mitigation*** will also occur.

Mitigation: ***See Mitigation Measures 8-1 and 8-2***

Conclusion: ***Less Than Significant Impact With Mitigation***

Project-specific impacts related to this Checklist item will result in a ***Less Than Significant With Mitigation***.

- c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

Project Impact Analysis: ***No Impact***

The Project site is not located within 0.25 mile of an existing or proposed school. The nearest school (Sycamore Valley Academy, a private K-8 charter school) is approximately 1.03 miles west of the Project site, north of Avenue 280. Therefore, ***No Project-specific Impact*** to this Checklist Item will occur.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

With ***Less Than Significant*** Project-specific impacts, ***Less Than Significant Cumulative Impacts*** will also occur.



Mitigation: *None Required.*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* to this Checklist Item will occur.

- d) **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

Project Impact Analysis: *No Impact*

As of November 2019, the proposed Project site was not located on a Cortese List site. Moreover, the proposed Project will not include elements that will require listing on the Cortese List. Therefore, *No Project-specific Impacts* to this Checklist Item will occur.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

The proposed Project site is not located on any Cortese List of hazardous materials. The proposed Project includes the construction and operation of a residential development and will not cause other properties to be included in the Cortese List. As such *No Cumulative Impact* to this Checklist Item will occur.

Mitigation: *None Required.*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* to this Checklist Item will occur.

- e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

Project Impact Analysis: *No Impact*

The nearest airport to the Project site is the Visalia Municipal Airport located approximately one mile directly east. The project site is within any Airport Zones, including Zone 6-Traffic Pattern Zone which represents the lowest level of hazard for areas within the Airports Safety



Zones.<sup>21</sup> The proposed Project site contains of an existing structure which will remain the tallest structure on the site. As such, all other proposed uses (e.g., materials piles, silos, storage tanks, etc.) will not exceed the height of the existing structure and would not pose a risk to the Traffic Pattern Zone. The proposed use is not un-similar to other existing industrial land uses located within one mile of the Airport and will not result in any increase in safety hazards for people working in the project area. Therefore, implementation of the proposed Project would result in ***No Impact*** to this Checklist Item.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

There is no Project level impact, and therefore ***No Cumulative Impact*** to this Checklist Item will occur.

Mitigation: ***None Required***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impact*** to this Checklist Item will occur.

**f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

Project Impact Analysis: ***No Impact***

There are no other known private airstrips in the project vicinity. Therefore, there will be ***No Project-specific Impact*** related to this Checklist Item.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

The proposed Project does not include alterations to an emergency plan or include reductions of site accessibility by emergency vehicles. ***No Cumulative Impacts*** to this Checklist Item will occur.

Mitigation: ***None required***

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<sup>21</sup> Tulare County Comprehensive Airport Land Use Plan (2012). Page 5-6.



Conclusion: *No Impact*

There is no Project level impact, and therefore *No Cumulative Impact* to this Checklist Item will occur.

**g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?**

Project Impact Analysis: *No Impact*

The Project site is not located in an area that would be subject to wildland fires. Therefore, the Project would result in *No Project-specific Impact*.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

As noted earlier, the Project site is not located in wildlands and will result in *No Cumulative Impact* related to this Checklist Item.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* to this Checklist Item will occur.



## ACRONYMS

CDF/CalFire	California Department of Forestry and Fire Protection
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
DOE	Department of Energy
DTSC	Cal/EPA Department of Toxic Substance Control
HMTA	Hazardous Materials Transportation Act of 1975
HWMP	Hazardous Waste Management Program
HWTS	Hazardous Waste Tracking System
LPG	Liquefied Propane Gas
LUST	Leaking Underground Tank
NCP	National Contingency Plan
SWPPP	Storm Water Pollution Prevention Plan
USFS	United States Forest Service

## DEFINITIONS

**Hazardous Waste Generators** - Hazardous waste generators can be classified in three groups depending on the quantity of waste generated in any month. A Conditionally Exempt Small Quantity Generator (CESQG) is defined in regulation as a generator of less than 100 kilograms of hazardous waste in a calendar month. A Small Quantity Generator (SQG) is a generator of greater than 100 kg and less than 1000 kg of hazardous waste in a calendar month. A Large Quantity Generator (LQG) generates greater than 1000 kg of hazardous waste in a calendar month. Determination of whether a facility is a CESQG, SQG, or LQG is the responsibility of the generator. The designation may change during the year, based on the quantity of hazardous waste produced during a particular month. Specific hazardous waste materials may also be exempt from the monthly total quantity. Therefore, the Certified Unified Program Agencies (CUPA) cannot authoritatively designate the number of generators within each of the earlier categories.

**Small Quantity Generators** - CUPA has designated 58 active and 30 inactive small quantity generators (SQG's). The total estimated quantities of hazardous waste generated within Tulare County by active and inactive SQG's during calendar year 2002 were 121.7 and 56.3 tons, respectively.

**Large Hazardous Waste Producers** - CUPA has designated 23 active and 3 inactive large quantity generators (LQG's). The total estimated quantities of hazardous waste generated within Tulare County by active and inactive LQG's during calendar year 2002 were 559.7 and 121.6 tons, respectively.

**Storage Facilities** - According to available information from the agencies (Department of Toxic Substances Control [DTSC] and RWQCB) that oversee treatment, storage and disposal facilities (TSDFs), there are no facilities authorized for the storage of hazardous waste in Tulare County.



**Disposal Facilities** - According to available information from the agencies (DTSC and RWQCB) that oversee treatment, storage and disposal facilities (TSDFs), there are no facilities authorized for the disposal of hazardous waste in Tulare County.

**Planned Treatment, Storage and Disposal Facilities** - According to information available to the CUPA, there are no new treatment, storage and disposal facilities proposed in Tulare County.

## REFERENCES

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# Hydrology and Water Quality

## Chapter 3.10

### SUMMARY OF FINDINGS

The proposed Project will result in a ***Less Than Significant Impact*** related to Hydrology and Water Quality. “*The Hydrology and Water Quality Report for Proposed Concrete and Asphalt Batch Plant*” report prepared by consultant Mason GeoScience, is included in Appendix “E” of this document which is used as the basis for determining this Project will result in less than significant impact with mitigation. A detailed review of potential impacts is provided in the following analysis.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts to Hydrology and Water Quality. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in 15126.2 (a), “[a]n EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area, as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazardous areas.”<sup>1</sup>

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<sup>1</sup> CEQA Guidelines, Section 15126.2 (a).



The “Environmental Setting” provides a description of the Hydrology and Water Quality in the County. The “Regulatory Setting” provides a description of applicable Federal, State and Local regulatory policies that were developed in part from information contained in the Tulare County 2030 General Plan, Tulare County General Plan Background Report and/or Tulare County General Plan Revised DEIR incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the proposed Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

### Thresholds of Significance

The thresholds of significance for this section are established by the CEQA checklist item questions. The following are potential thresholds for significance.

- Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.
- Project will substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Project will substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, in a manner which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- Project in flood hazard, tsunami, seiche zones, risk release of pollutants due to project inundation.

## **ENVIRONMENTAL SETTING**

“The Tulare Lake Hydrologic Region covers approximately 10.9 million acres (17,050 square miles) and includes all of Kings and Tulare counties and most of Fresno and Kern counties... The southern portion of the San Joaquin Valley is subdivided into two separate basins, the San Joaquin and the Tulare, by a rise in the valley floor resulting from an accumulation of alluvium between the San Joaquin River and the Kings River fan. The valley floor in this region had been a complex series of interconnecting natural sloughs, canals, and marshes.

The economic development of the region is closely linked to the surface water and groundwater resources of the Tulare Lake region. Major rivers draining into the Tulare Lake region include the Kings, Kaweah, Tule, and Kern rivers. The original ecological character of the area has been changed dramatically, largely from the taming of local rivers for farming. In the southern portion of the region, significant geographic features include the lakebeds of the former Buena Vista/ Kern and Tulare lakes, comprising the southern half of the region; the Coast Ranges to the west; the Tehachapi Mountains to the south; and the southern Sierra Nevada to the east. The Tulare Lake region is one of the nation’s leading agricultural production areas, growing a wide variety



of crops on about 3 million irrigated acres. Agricultural production has been a mainstay of the region since the late 1800s. However, since the mid-1980s, other economic sectors, particularly the service sector, have been growing.”<sup>2</sup>

The Tulare Lake Hydrologic Region has watershed areas (surface water) and groundwater sub-basin areas are shown in **Figure 3.10-1**; **Figure 3.10-2** shows the Tulare Lake Hydrologic Region.

### ***Watershed (Surface Water)***

“The Tulare Lake region is divided into several main hydrologic subareas: the alluvial fans from the Sierra foothills and the basin subarea (in the vicinity of the Kings, Kaweah, and Tule rivers and their distributaries); the Tulare Lake bed; and the southwestern uplands. The alluvial fan/basin subarea is characterized by southwest to south flowing rivers, creeks, and irrigation canal systems that convey surface water originating from the Sierra Nevada. The dominant hydrologic features in the alluvial fan/basin subarea are the Kings, Kaweah, Tule, and Kern rivers and their major distributaries from the western flanks of the Sierra.”<sup>4</sup> “The Kaweah River begins in Sequoia National Park, flows west and southwest, and is impounded by Terminus Dam. It subsequently spreads into many distributaries around Visalia and Tulare trending toward Tulare Lake.”<sup>3</sup>

### **“Groundwater Aquifers and Wells**

Groundwater resources in the Tulare Lake region are supplied by both alluvial and fractured rock aquifers. Alluvial aquifers are composed of sand and gravel or finer grained sediments, with groundwater stored within the voids, or pore space, between the alluvial sediments. Fractured-rock aquifers consist of impermeable granitic, metamorphic, volcanic, and hard sedimentary rocks, with groundwater being stored within cracks, fractures, or other void spaces. The distribution and extent of alluvial and fractured-rock aquifers and water wells vary significantly within the region. A brief description of the aquifers for the region is provided below.

### **Alluvial Aquifers**

The Tulare Lake Hydrologic Region contains 12 groundwater basins and 7 subbasins recognized in California Department of Water Resources (DWR) *Bulletin 18-2003* (California Department of Water Resources 2003) and underlie approximately 8,400 square miles, or about 50 percent of the region. The majority of the groundwater in the region is stored in alluvial aquifers. Figure TL-3 [of the California Water Plan Update 2013] shows the location of the alluvial groundwater basins and subbasins and Table TL-1 [of the California Water Plan Update 2013] lists the associated names and numbers. Pumping from the alluvial aquifers in the region accounts for about 38 percent of California’s total average annual groundwater extraction. The most heavily used groundwater basins in the region include Kings, Westside, Kaweah, Tulare Lake, Tule, and

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<sup>2</sup> “California Water Plan Update 2013, Tulare Lake Hydrologic Region”. Page TL-11.

<sup>3</sup> Ibid.



**Figure 3.10-1 – Groundwater Basins and Sub-basins Within the  
Tulare Lake Hydrologic Region**





**Figure 3.10-2 Tulare Lake Hydrologic Region**





Kern County. These basins account for approximately 98 percent of the average 6.3 million acre-feet (maf) of groundwater pumped annually during the 2005-2010 period. Groundwater wells in the San Joaquin Valley extend to depths of more than 1,000 feet (Page 1986). Based on a series of irrigation pump tests, groundwater pumping rates in the various subbasins were determined to range from about 650 gallons per minute (gpm) to about 1,650 gpm (Burt 2011)."

#### Fractured-Rock Aquifers

Fractured-rock aquifers are generally found in the mountain and foothill areas adjacent to alluvial groundwater basins; as such, fractured-rock aquifers would not be found on the Valley floor nor within the Project site/location.

#### Surface Water Quality

"Surface water quality in the Basin is generally good, with excellent quality exhibited by most eastside streams. The Regional Water Board intends to maintain this quality."<sup>4</sup> Specific objectives outlined in the Water Quality Control Plan are listed below:<sup>5</sup>

- **Ammonia:** Waters shall not contain un-ionized ammonia in amounts which adversely affect beneficial uses. In no case shall the discharge of wastes cause concentrations of un-ionized ammonia (NH<sub>3</sub>) to exceed 0.025 mg/l (as N) in receiving waters.
- **Bacteria:** In waters designated REC-1, the fecal coliform concentration based on a minimum of not less than five samples for any 30-day period shall not exceed a geometric mean of 200/100 ml, nor shall more than ten percent of the total number of samples taken during any 30-day period exceed 400/100 ml.
- **Biostimulatory Substances:** Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
- **Chemical Constituents:** Waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses.
- **Color:** Waters shall be free of discoloration that causes nuisance or adversely affects beneficial uses.
- **Dissolved Oxygen:** Waste discharges shall not cause the monthly median dissolved oxygen concentrations (DO) in the main water mass (at centroid of flow) of streams and above the thermocline in lakes to fall below 85 percent of saturation concentration, and the 95 percentile concentration to fall below 75 percent of saturation concentration.
- **Floating Material:** Waters shall not contain floating material, including but not limited to solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.

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<sup>4</sup> "Water Quality Control Plan for the Tulare Lake Basin". May 2018. Page 3-9.

<sup>5</sup> Ibid. 3-2 to 3-7.



- **Oil and Grease:** Waters shall not contain oils, greases, waxes, or other materials in concentrations that cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses.
- **pH:** The pH of water shall not be depressed below 6.5, raised above 8.3, or changed at any time more than 0.3 units from normal ambient pH.
- **Pesticides:** Waters shall not contain pesticides in concentrations that adversely affect beneficial uses.
- **Radioactivity:** Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life nor which result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life
- **Salinity:** Waters shall be maintained as close to natural concentrations of dissolved matter as is reasonable considering careful use of the water resources.
- **Sediment:** The suspended sediment load and suspended sediment discharge rate of waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
- **Settleable Material:** Waters shall not contain substances in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses.
- **Tastes and Odors:** Waters shall not contain taste- or odor-producing substances in concentrations that cause nuisance, adversely affect beneficial uses, or impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to domestic or municipal water supplies.
- **Temperature:** Natural temperatures of waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses.
- **Toxicity:** All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life.
- **Turbidity:** Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.

Specific water quality objectives for ground waters outlined in the Water Quality Control Plan are summarized as follows:<sup>6</sup>

- **Bacteria:** In ground waters designated MUN, the concentration of total coliform organisms over any 7-day period shall be less than 2.2/100 ml.
- **Chemical Constituents:** Ground waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses.

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<sup>6</sup> Op. Cit. 3-10 through 3-12.



- **Pesticides:** No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.
- **Radioactivity:** Radionuclides shall not be present in ground waters in concentrations that are deleterious to human, plant, animal, or aquatic life, or that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal or aquatic life.
- **Salinity:** All ground waters shall be maintained as close to natural concentrations of dissolved matter as is reasonable considering careful use and management of water resources.
- **Tastes and Odors:** Ground waters shall not contain taste- or odor producing substances in concentrations that cause nuisance or adversely affect beneficial uses.
- **Toxicity:** Ground waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial use(s).<sup>7</sup>

According to the “*California Water Plan Update 2013, Tulare Lake Hydrologic Region*”, “Generally, the quality and the beneficial uses of the deep groundwaters remain the same as before humans entered the valley. A few areas within the Tulare Lake Basin have groundwaters that are naturally unusable or of marginal quality for certain beneficial uses. (Central Valley Regional Water Quality Control Board 2004) However, anthropogenic sources have impacted many of the shallower zones. Groundwater in the shallower part of the aquifer generally contains higher concentrations of anthropogenic contaminants, such as nitrates and pesticides, than the deeper part of the aquifer. The shallower part of the aquifer is generally younger water that indicates more recently recharged water. So, shallower wells, such as domestic supply wells, may provide better indication of pollutants from current land use activities. Pollutants from current land use activities may eventually impact deeper wells such as public supply wells (Burow et al. 2008). The following are the contaminants of concern in groundwater for this region:

- Salinity (Central Valley Regional Water Quality Control Board 2004).
- Nitrate (Dubrovsky et al. 1998, Burow et al. 2008, Center for Watershed Sciences 2012).
- DBCP (1,2-dibromo-3-chloropropane) (Dubrovsky et al. 1998, Burow et al. 2008, State Water Resources Control Board 2013).
- Arsenic (State Water Resources Control Board 2013).
- Gross Alpha Particle Activity and Uranium (State Water Resources Control Board 2013).
- Chromium 6 (State Water Resources Control Board 2011b).
- Localized contamination by (State Water Resources Control Board 2013):
  - Organic Compounds (Benzene, tetrachloroethylene (PCE), trichloroethylene (TCE), and perchlorate).
  - Fluoride<sup>8</sup>

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<sup>7</sup> California Regional Water Quality Control Board Central Valley Region. “*Water Quality Control Plan for the Tulare Lake Basin Second Edition*”. Revised January 2015 (with Approved Amendments). Pages III-7 through III-9. Accessed March 2019 at: [https://www.waterboards.ca.gov/centralvalley/water\\_issues/basin\\_plans/tlbp\\_201501.pdf](https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/tlbp_201501.pdf).



As discussed in the “*California Water Plan Update 2013, Tulare Lake Hydrologic Region*”(2013 CA Water Plan) , the key ground water quality issues include the following.

**Salinity:** “Degradation of groundwater in the Tulare Lake Basin by salts is unavoidable without a plan for removing salts from the basin. Some of the salt load to the groundwater resource is primarily the result of natural processes within the basin, but some also occurs due to water imported from other basins to supply agricultural irrigation water. Natural processes include salt loads leached from the soils by precipitation, valley floor runoff, and native surface waters. Salts that are not indigenous to the basin water resources results from human activity. Salts come from imported water, soil leached by irrigation, animal wastes, fertilizers, and other soil amendments, municipal use, industrial wastewaters, and oil field wastewaters. These salt sources, all contributors to salinity increases, should be managed to the extent practicable to reduce the rate of ground water degradation. (Central Valley Regional Water Quality Control Board 2004).”<sup>9</sup>

**Nitrates:** “In a 1998 USGS study, nitrate concentrations in 24 percent (21 of 88) of the domestic wells sampled during 1993-1995 in the regional aquifer survey and land-use studies of the eastern San Joaquin Valley exceeded the drinking-water standard of 10 mg/L established by the EPA. A subsequent USGS study found that concentrations of nitrate and pesticides in the shallow part of the aquifer system at depths of domestic wells in the study area have increased over time due to continued contributions of nitrates and current use pesticides in the recharge water. Also, concentrations of nitrates and pesticides in the shallow part of the aquifer are likely to move to deeper parts of the groundwater flow system (Burow et al. 2008). The recent University of California, Davis report also found that travel times of nitrates from source to wells range from a few years to decades in domestic wells, and from years to many decades and even centuries in deeper production wells. While the quality of the shallower part of the aquifer is the result of past land use activities, the soil profile contains a stockpile of these contaminants that will continue to recharge the shallow aquifer and cause migration of contaminants to the deeper aquifer. Humangenerated nitrate sources to groundwater include nitrogen applied to croplands, percolation of wastewater treatment plant and food processing wastes, leachate from septic system drain fields, urban parks, lawns, golf courses, leaky sewer systems, recharge from animal corrals and manure storage lagoons, and downward migration of nitrate-contaminated water via wells. Agricultural fertilizers and animal wastes applied to cropland are by far the largest regional sources of nitrate in groundwater; although, other sources can be locally relevant (Center for Watershed Sciences 2012).”<sup>10</sup>

**DBCP:** “Concentrations of DBCP, a soil fumigant banned since 1977, exceeded the EPA drinking-water standard of 0.2 mg/L in 18 of the 88 (or 20 percent) domestic wells sampled

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<sup>8</sup> “*California Water Plan Update 2013, Tulare Lake Hydrologic Region*”. Page TL-60 and TL-61. Accessed March 2019 at: <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/California-Water-Plan/Docs/Update2013/Regional-Reports/Water-Plan-Update-2013-Tulare-Lake-Regional-Report.pdf>.

<sup>9</sup> Ibid. 61.

<sup>10</sup> Op. Cit.



during 1993-1995 (Dubrovsky et al. 1998). DBCP concentrations were above the drinking-water standard in 16 of 50 (or 32 percent) of domestic wells samples in orchards and vineyards from 2001-2002 (Burow et al. 2008).”<sup>11</sup>

**Arsenic:** “Public supply wells with levels of arsenic in the raw and untreated water that exceed the maximum contaminant level (MCL) were found in the south and western part of the Tulare Lake. Arsenic is generally considered to be naturally occurring (State Water Resources Control Board 2013). Arsenic has been linked to cancer of the bladder, lungs, skin, kidney, nasal passages, liver, and prostate (U.S. Environmental Protection Agency 2012a).”<sup>12</sup>

**Gross Alpha Particle Activity and Uranium:** “Gross alpha particle activity and uranium were found in raw and untreated water for many of the public water systems in the Tulare Lake Basin. These radionuclides are typically naturally occurring but are a concern because of the potential for health effects (State Water Resources Control Board 2013).”<sup>13</sup>

**Chromium 6:** “Chromium is a metal found in natural deposits of ores containing other elements, mostly as chrome-iron ore. It is also widely present in soil and plants. Recent sampling of drinking water throughout California suggests that hexavalent chromium may occur naturally in groundwater at many locations. Chromium may also enter the environment from human uses. Chromium is used in metal alloys such as stainless steel, protective coatings on metal, magnetic tapes, pigments for paints, cement, paper, rubber, composition floor covering, etc. Elevated levels (above the detection limit of 1 µg/L) of hexavalent chromium have been detected in many active and standby public supply wells along the west or valley floor portion of the Central Valley (State Water Resources Control Board 2011b).”<sup>14</sup>

**Localized Contamination: Organic Compounds** (Benzene, tetrachloroethylene (PCE), trichloroethylene (TCE), and perchlorate) **and Flouride:** “Benzene, perchlorate, PCE, and TCE have been detected at levels exceeding MCLs in the source water of a few water systems in the Tulare Lake region. Benzene was found in public supply wells in Arvin and Kettleman City. Perchlorate was found in wells in Tehachapi, Stallion Springs, East Tulare, and Exeter. PCE was found in public supply wells in the Fresno metropolitan area, Sanger, Arvin, Golden Hills, Oildale, Bakersfield, and Goshen areas. TCE was found in the Fresno and Bakersfield metropolitan areas (State Water Resources Control Board 2013). Benzene and perchlorate occur in the environment both naturally and due to human-made sources. PCE was the main solvent used for dry cleaning. Its occurrence in the environment is also associated with textile operations and metal degreasing operations. TCE is most associated with metal degreasing operations.

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<sup>11</sup> Op. Cit. 62.

<sup>12</sup> Op. Cit.

<sup>13</sup> Op. Cit.

<sup>14</sup> Op. Cit.



Fluoride was found at levels exceeding MCLs in raw and untreated water in the Sierra and San Emigdio Mountains areas of Kern County (State Water Resources Control Board 2013). While fluoride is added to public drinking water supplies as a public health measure for reducing cavities among the treated population, it can also occur naturally as a result of the geological composition of soils and bedrock (U.S. Environmental Protection Agency 2011).<sup>15</sup>

### Surface Water Supply

“Surface water supplies for the Tulare Lake Basin include developed supplies from the Central Valley Project (CVP), the State Water Project (SWP), rivers, and local projects. Surface water also includes the supplies for required environmental flows. Required environmental flows are comprised of undeveloped supplies designated for wild and scenic rivers, supplies used for instream flow requirements, and supplies used for Bay-Delta water quality and outflow requirements. Finally, surface water includes supplies available for reapplication downstream. Urban wastewater discharges and agricultural return flows, if beneficially used downstream, are examples of reapplied surface water.”<sup>16</sup>

“Along the eastern edge of the valley, the Friant-Kern Canal is used to divert San Joaquin River water from Millerton Lake for delivery to agencies extending into Kern County. All of the Tulare Lake region’s streams are diverted for irrigation or other purposes, except in the wettest years. Historically, they drained into Tulare Lake, Kern Lake, or adjacent Buena Vista Lake. The latter ultimately drained to Tulare Lake, which is about 30 feet lower in elevation.”<sup>17</sup>

“The Kings, Kaweah, Tule, and Kern Rivers, which drain the west face of the Sierra Nevada Mountains, are of excellent quality and provide the bulk of the surface water supply native to the Basin. Imported surface supplies, which are also of good quality, enter the Basin through the San Luis Canal/California Aqueduct System, Friant-Kern Canal, and the Delta- Mendota Canal. Adequate control to protect the quality of these resources is essential, as imported surface water supplies contribute nearly half the increase of salts occurring within the Basin.”<sup>18</sup>

### Groundwater Supply

“Surface water supplies tributary to or imported for use within the Basin are inadequate to support the present level of agricultural and other development. Therefore, ground water resources within the valley are being mined to provide additional water to supply demands.”<sup>19</sup>

“Groundwater in Tulare County occurs in an unconfined state throughout, and in a confined state beneath its western portion. Extensive alluvial fans associated with the Kings, Kaweah, and Tule Rivers provide highly permeable areas in which groundwater in the unconfined aquifer system is

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<sup>15</sup> Op. Cit.

<sup>16</sup> Tulare County General Plan 2030 Update, Background Report. Page 10-7.

<sup>17</sup> “California Water Plan Update 2009, Tulare Lake Hydrologic Region”. Page TL-5.

<sup>18</sup> “Water Quality Control Plan for the Tulare Lake Basin”. May 2018. Page 1-2.

<sup>19</sup> Ibid.



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readily replenished. Interfan areas between the streams contain less permeable surface soils and subsurface deposits, impeding groundwater recharge and causing well yields to be relatively low. The mineral quality of groundwater in Tulare County is generally satisfactory for all uses.”<sup>20</sup> “Groundwater recharge is primarily from natural streams, other water added to streambeds, from deep percolation of applied irrigation water, and from impoundment of surface water in developed water bank/percolation ponds.”<sup>21</sup>

“The Tulare Lake region has experienced water-short conditions for more than 100 years, which has resulted in a water industry that has consciously developed—through careful planning, management and facility design—the possibility of a shortage occurring in any year. Water demand is more or less controlled by available, reliable long-term water supplies. Over the years, agricultural acreage has risen and dropped largely based on water supplies. The region initially developed with surface water supplies; but local water users learned these supplies could widely vary in volume from year to year and drought conditions could quickly develop. The introduction of deep well turbines resulted in a dramatic rise in groundwater use in the early 1900s, subsequently resulting in dropping groundwater levels and land subsidence. Surface water storage and conveyance systems built to alleviate the overuse of groundwater provided an impounded supply of water that could be used during years with deficient surface water. This resulted in a regional reliance on conjunctive water use in the development of the local water economy. Efforts to address Delta environmental issues and the subsequent loss of surface water to the region is increasing groundwater use and creating concern that additional pumping will increase subsidence.”<sup>22</sup>

According to the *2013 California Water Plan*, water storage has fluctuated between 2003 and 2010. The data suggests that variations occur as a result of changing precipitation levels as seen in **Figure 3.10-1**.

<b>Table 3.10-1 Tulare Lake Hydrologic Water Balance for 2003-2010 (thousand acre-feet)<sup>23</sup></b>								
Tulare Lake Region	Water Year							
	2003	2004	2005	2006	2007	2008	2009	2010
Water Entering the Region								
Precipitation	12,137	11,964	19,939	17,135	7,031	10,724	9,945	16,185
Inflow from Oregon/Mexico	0	0	0	0	0	0	0	0
Inflow from Colorado River	0	0	0	0	0	0	0	0
Imports from Other Regions	3,696	4,239	5,174	5,944	4,434	2,797	2,704	4,456
<b>Total</b>	<b>17,311</b>	<b>16,780</b>	<b>22,848</b>	<b>23,079</b>	<b>11,465</b>	<b>13,521</b>	<b>12,649</b>	<b>20,641</b>
Water Leaving the Region								
Consumptive Use of Applied Water	7,667	8,221	6,953	7,376	8,214	8,592	8,684	7,668
Outflow to Oregon/Nevada/Mexico	0	0	0	0	0	0	0	0

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<sup>20</sup> Tulare County General Plan 2030 Update Background Report. Page 10-11.

<sup>21</sup> “California Water Plan Update 2009, Tulare Lake Hydrologic Region”. Page TL-17.

<sup>22</sup> Ibid. TL-19.

<sup>23</sup> Op. Cit.



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<b>Table 3.10-1 Tulare Lake Hydrologic Water Balance for 2003-2010 (thousand acre-feet)<sup>23</sup></b>								
Exports to Other Regions	1,898	1,961	1,724	2,269	2,053	1,215	1,204	1,502
Statutory Required Outflow to Salt Sink	0	0	0	0	0	0	0	0
Additional Outflow to Salt Sink	458	457	300	468	456	514	456	456
Evaporation, Evapotranspiration of Native Vegetation, Groundwater Subsurface Outflows, Natural and Incidental Runoff, Ag Effective Precipitation & Other Outflows	10,090	10,342	13,297	13,241	5,303	8,528	7,667	13,095
<b>Total</b>	<b>20,113</b>	<b>20,981</b>	<b>22,274</b>	<b>23,350</b>	<b>16,026</b>	<b>18,849</b>	<b>18,011</b>	<b>22,721</b>
Storage Changes in Region: [+] Water added to storage, [-] Water removed from storage								
Change in Surface Reservoir Storage	173	-199	680	-108	-473	-59	101	259
Change in Groundwater Storage	-2975	-4,002	-106	163	-4,088	5,269	5,463	2,339
<b>Total</b>	<b>-2,802</b>	<b>-4,201</b>	<b>574</b>	<b>-4,256</b>	<b>-4,088</b>	<b>-5,329</b>	<b>-5,362</b>	<b>-2,080</b>

“Groundwater overdraft is expected to decline statewide by 2020. The reduction in irrigated acreage in drainage problem areas on the west side of the San Joaquin Valley is expected to reduce groundwater demands in the Tulare Lake region by 2020.”<sup>24</sup> According to the 2009 California Water Plan Update, it is anticipated that there will be a 550,000 acre-feet reduction in the water demand in the Tulare Lake Hydrologic Area under Current Growth trends. Slow & Strategic Growth trends may further decrease water demand, while Expansive Growth trends may increase water demand.

“There are 19 entities in Tulare County with active programs of groundwater management. These management programs include nearly all types of direct recharge of surface water. Groundwater recovery is accomplished primarily through privately owned wells. Among the larger programs of groundwater management are those administered by the Kaweah Delta Water Conservation District, the Kings River Water Conservation District, the Tulare Irrigation District, the Lower Tule Water Users Association, and the Alta Irrigation District, utilizing water from the Friant-Kern Canal and local streams. The Kings River Water Conservation District covers the western county.”<sup>25</sup>

#### Irrigation Districts in Tulare County

The Tulare County Resource Management Agency maintains a list of special districts that provide sewer and/or water service that cannot currently meet the demand of new development projects. The list provided by Tulare County RMA (last updated April 30, 2007) indicates that following water and/or sewer districts are either under a temporary cease and desist order by the Regional Water Control Board prohibiting any new connections, or have other limitations for water and sewer connections.

- Alpaugh Joint Powers Authority Water District;

<sup>24</sup> “California Water Plan Update 2013, Tulare Lake Hydrologic Region”. Page TL-54.

<sup>25</sup> Ibid. 10-12



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- Cutler Public Utility District;
- Delft Colony Zone of Benefit (County RMA);
- Earlimart Public Utility District;
- El Rancho Zone of Benefit (County RMA);
- Orosi Public Utility District;
- Pixley Public Utility District;
- Pratt Mutual Water Company;
- Richgrove Public Utility District;
- Seville Zone of Benefit (County RMA);
- Seville Water Company;
- Springville Public Utility District;
- Tooleville Zone of Benefit (County RMA);
- Traver Zone of Benefit (County RMA); and
- Wells Tract Zone of Benefit (County RMA)<sup>26</sup>

**Table 3.10-2**  
**Irrigation Districts in Tulare County<sup>27</sup>**

Entity	Surface Water	Imported Water Source	Groundwater Extraction
Alpaugh Irrigation District	NA	Friant-Kern Canal (1,000af average)	19,000 af
Alta Irrigation District	Kings River	Friant-Kern Canal (surplus)	230,000 af
Delano-Earlimart Irrigation District	NA	Friant-Kern Canal (146,050 af average)	8,000 af
Exeter Irrigation District	NA	Friant-Kern Canal (1,000 af average)	14,000 af
Hills Valley Irrigation District	NA	Cross Valley Canal (2,000 af average)	1,000 af
Ivanhoe Irrigation District	Kaweah River	Friant-Kern Canal (11,650 af average)	15,000 af
Kaweah Delta Water Cons. District	Kaweah River	Friant-Kern Canal (24,000 af average)	130,000 af
Kern-Tulare Water District	Kern River	Cross Valley Canal (41,000 af average)	33,000 af
Lindmore Irrigation District	NA	Friant-Kern Canal (44,000 af average)	28,000 af
Lower Tule River Irrigation Dist.	Tule River	Friant-Kern Canal (180,200 af average) Cross Valley Canal (31,000 af average)	NA
Lindsay-Strathmore Irrigation Dist.	NA	Friant-Kern Canal (24,150 af average)	NA
Orange Cove Irrigation District	NA	Friant-Kern Canal (39,200 af average)	30,000 af
Pioneer Water Irrigation District	Tule River		3,000 af
Pixley Irrigation District	NA	Friant-Kern Canal (1,700 af average) Cross Valley Canal (31,000 af average)	130,000 af
Porterville Irrigation District	Tule River	Friant-Kern Canal (31,000 af average)	15,000 af
Rag Gulch Water District	Kern River	Friant-Kern Canal (3,700 af average) Cross Valley Canal (13,300 af average)	
Saucelito Irrigation District	Tule River	Friant-Kern Canal (37,600 af average)	15,000 af
Stone Corral Irrigation District	NA	Friant-Kern Canal (10,000 af average)	5,000 af
Teapot Dome Irrigation District	NA	Friant-Kern Canal (5,600 af average)	
Terra Bella Irrigation District	NA	Friant-Kern Canal (29,000 af average)	2,000 af
Tulare Irrigation District	Kaweah River	Friant-Kern Canal (100,500 af average)	65,000 af

<sup>26</sup> “California Water Plan Update 2009, Tulare Lake”. Page TL-17.

<sup>27</sup> Bookman-Edmonston Engineering Inc. Water Resources Management in the Southern San Joaquin Valley. Table A-1.



## Flooding

“Flooding is a natural occurrence in the Central Valley because it is a natural drainage basin for thousands of watershed acres of Sierra Nevada and Coast Range foothills and mountains. Two kinds of flooding can occur in the Central Valley: general rainfall floods occurring in the late fall and winter in the foothills and on the valley floor; and snowmelt floods occurring in the late spring and early summer. Most floods are produced by extended periods of precipitation during the winter months. Floods can also occur when large amounts of water (due to snowmelt) enter storage reservoirs, causing an increase in the amount of water that is released.”<sup>28</sup>

“Floods in the Tulare Lake Hydrologic Region can be caused by heavy rainfall; by dams, levees, or other engineered structures failing; or by extreme wet-weather patterns. Historically, in the Tulare Lake region flooding originates principally from melting of the Sierra snowpack and from rainfall. Flooding from snowmelt typically occurs in the spring and has a lengthy runoff period. Flooding in the region was intermittent, with severe flooding some years and drought in other years. Flash and slow-rise flooding are the most commonly experienced types of flooding in this hydrologic region. Floods that occur in the Tulare Lake region take a variety of forms and can be classified into flash, alluvial fan, debris flow, stormwater, slow-rise, and engineered structure failure flooding. For a complete record of floods, refer *California Flood Future Report, Attachment C: Flood history of California* technical memorandum (California Department of Water Resources and the U.S. Army Corps of Engineers 2013a).”<sup>29</sup>

“Official floodplain maps are maintained by the Federal Emergency Management Agency (FEMA). FEMA determines areas subject to flood hazards and designates these areas by relative risk of flooding on a map for each community, known as the Flood Insurance Rate Map (FIRM). A 100-year flood is considered for purposes of land use planning and protection of property and human safety. The boundaries of the 100-year floodplain are delineated by FEMA on the basis of hydrology, topography, and modeling of flow during predicted rainstorms.”<sup>30</sup>

“The flood carrying capacity in rivers and streams has decreased as trees, vegetation, and structures (e.g., bridges, trestles, buildings) have increased along the Kaweah, Kings, and Tule Rivers. Unsecured and uprooted material can be carried down a river, clogging channels and piling up against trestles and bridge abutments that can, in turn, give way or collapse, increasing blockage and flooding potential. Flooding can force waters out of the river channel and above its ordinary floodplain. Confined floodplains can result in significantly higher water elevations and higher flow rates during high runoff and flood events.”<sup>31</sup>

“Dam failure can result from numerous natural or human activities, such as earthquakes, erosion, improper siting, rapidly rising flood waters, and structural and design flaws. Flooding due to dam failure can cause loss of life, damage to property, and other ensuing hazards. Damage to

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<sup>28</sup> Tulare County General Plan 2030 Update Background Report. Page 8-13.

<sup>29</sup> “*California Water Plan Update 2009, Tulare Lake Hydrologic Region*”. Page TL-30.

<sup>30</sup> Tulare County General Plan 2030 Update Background Report. Page 8-14.

<sup>31</sup> Ibid.



electric-generating facilities and transmission lines associated with hydro-electric dams could also affect life support systems in communities outside the immediate hazard area.”<sup>32</sup>

## REGULATORY SETTING

### *Federal Agencies & Regulations*

#### Clean Water Act/NPDES

“The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972... Under the CWA, EPA has implemented pollution control programs such as setting wastewater standards for industry. We have also set water quality standards for all contaminants in surface waters... The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.”<sup>33</sup>

#### Safe Drinking Water Act

“The Safe Drinking Water Act (SDWA) is the main federal law that ensures the quality of Americans' drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards... SDWA was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. (SDWA does not regulate private wells which serve fewer than 25 individuals.)”<sup>34</sup>

#### United States Environmental Protection Agency (EPA)

The mission of EPA is to protect human health and the environment.

“EPA's purpose is to ensure that:

- all Americans are protected from significant risks to human health and the environment where they live, learn and work;

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<sup>32</sup> Op. Cit. 8-17.

<sup>33</sup> U.S. Environmental Protection Agency. Summary of the Clean Water Act – <http://www.epa.gov/lawsregs/laws/cwa.html>. Accessed March, 2019.

<sup>34</sup> U.S. Environmental Protection Agency. Summary of the Safe Drinking Water Act – <http://water.epa.gov/lawsregs/rulesregs/sdwa/index.cfm>. Accessed March 2019.



- national efforts to reduce environmental risk are based on the best available scientific information;
- federal laws protecting human health and the environment are enforced fairly and effectively;
- environmental protection is an integral consideration in U.S. policies concerning natural resources, human health, economic growth, energy, transportation, agriculture, industry, and international trade, and these factors are similarly considered in establishing environmental policy;
- all parts of society -- communities, individuals, businesses, and state, local and tribal governments -- have access to accurate information sufficient to effectively participate in managing human health and environmental risks;
- environmental protection contributes to making our communities and ecosystems diverse, sustainable and economically productive; and
- the United States plays a leadership role in working with other nations to protect the global environment.”<sup>35</sup>

#### Army Corps of Engineers (Corps)

“The Department of the Army Regulatory Program is one of the oldest in the Federal Government. Initially it served a fairly simple, straightforward purpose: to protect and maintain the navigable capacity of the nation's waters. Time, changing public needs, evolving policy, case law, and new statutory mandates have changed the complexion of the program, adding to its breadth, complexity, and authority.

The Regulatory Program is committed to protecting the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands.”<sup>36</sup>

#### National Flood Insurance Program

In 1968, Congress created the National Flood Insurance Program (NFIP). “The Act was motivated by the devastating loss of life and property by Hurricane Betsy in 1965 and created the National Flood Insurance Program (NFIP). Since then, the program has aimed to reduce the impact of flooding on private and public structures by providing affordable insurance to property owners, renters and businesses, as well as by encouraging communities to adopt and enforce floodplain management regulations.”<sup>37</sup> “These efforts help mitigate the effects of flooding on new and improved structures. Overall, the program reduces the socio-economic impact of

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<sup>35</sup> U.S. Environmental Protection Agency. What we do. <http://www.epa.gov/aboutepa/whatwedo.html>. Accessed March 2019.

<sup>36</sup> Army Corps of Engineers <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx>. Accessed March 2019.

<sup>37</sup> National Flood Insurance Program Summary: Accessed March 2019 at: <https://www.fema.gov/nfip50>.



disasters by promoting the purchase and retention of general risk insurance, but also of flood insurance, specifically.”<sup>38</sup>

### ***State Agencies & Regulations***

#### **The Porter-Cologne Water Quality Control Act**

“Under the Porter-Cologne Water Quality Control Act (Porter-Cologne), the State Water Resources Control Board (State Board) has the ultimate authority over State water rights and water quality policy. However, Porter-Cologne also establishes nine Regional Water Quality Control Boards (Regional Boards) to oversee water quality on a day-to-day basis at the local/regional level.”<sup>39</sup>

#### **State Water Quality Control Board**

“The State Water Resources Control Board (State Water Board) was created by the Legislature in 1967. The joint authority of water allocation and water quality protection enables the State Water Board to provide comprehensive protection for California’s waters.

The State Water Board consists of five full-time salaried members, each filling a different specialty position. Board members are appointed to four-year terms by the Governor and confirmed by the Senate.”<sup>40</sup>

#### **Regional Water Quality Control Board**

“There are nine Regional Water Quality Control Boards (Regional Boards). The mission of the Regional Boards is to develop and enforce water quality objectives and implementation plans that will best protect the State’s waters, recognizing local differences in climate, topography, geology and hydrology. Each Regional Board has seven part-time members appointed by the Governor and confirmed by the Senate. Regional Boards develop “basin plans” for their hydrologic areas, issue waste discharge requirements, take enforcement action against violators, and monitor water quality.”<sup>41</sup>

“The primary duty of the Regional Board is to protect the quality of the waters within the Region for all beneficial uses. This duty is implemented by formulating and adopting water quality plans for specific ground or surface water basins and by prescribing and enforcing requirements on all agricultural, domestic and industrial waste discharges. Specific responsibilities and procedures of the Regional Boards and the State Water Resources Control Board are contained in the Porter-Cologne Water Quality Control Act.”<sup>42</sup>

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<sup>38</sup> National Flood Insurance Program. Accessed March 2019 at: <https://www.fema.gov/national-flood-insurance-program>.

<sup>39</sup> California Department of Water Resources. Porter-Cologne Water Quality Control Act Summary. Accessed March 2019 at: [http://ceres.ca.gov/wetlands/permitting/Porter\\_summary.html](http://ceres.ca.gov/wetlands/permitting/Porter_summary.html).

<sup>40</sup> California Water Boards. Mission Statement. Accessed March 2019 at: [http://www.waterboards.ca.gov/about\\_us/water\\_boards\\_structure/mission.shtml](http://www.waterboards.ca.gov/about_us/water_boards_structure/mission.shtml).

<sup>41</sup> Ibid.

<sup>42</sup> Central Valley Water Quality Control Board Accessed March 2019 at: [http://www.swrcb.ca.gov/centralvalley/about\\_us/](http://www.swrcb.ca.gov/centralvalley/about_us/).



### California Department of Water Resources (DWR)

DWR's mission is "To manage the water resources of California, in cooperation with other agencies, to benefit the state's people and to protect, restore, and enhance the natural and human environments."<sup>43</sup> DWR provides a summary of their responsibilities as follows; "Our responsibilities and duties include:

- Preventing and responding to floods, droughts, and catastrophic events
- Informing and educating the public on water issues
- Developing scientific solutions
- Restoring habitats
- Planning for future water needs, climate change impacts, and flood protection
- Constructing and maintaining facilities
- Generating power
- Ensuring public safety
- Providing recreational opportunities"<sup>44</sup>

In addition, DWR also conducts the follow:

"Dam Safety - Engineers and engineering geologists review and approve plans and specifications for the design of dams throughout California and oversee their construction to ensure compliance.

Education - We educate students and communities throughout California on water issues and water safety.

Flood Preparedness - We work with communities and emergency responders to prepare for flood season.

Science - Science is integral to our policy and management decisions – our scientists work in a wide range of specialties and develop solutions for the complexities of sustainable water management in California.

Water Supply & Storage – We operate and maintain a complex water storage and supply system, transporting water more than 600 miles from north to south. We also regulate the use of groundwater, which accounts for at least 1/3 of all water use in California.

Drought Mitigation - Because drought is a recurring feature of California's climate, drought preparedness is an ongoing activity that includes managing water supply reliability.

Emergency Management - We protect life and property from catastrophic events such as flood, drought, and dam or levee failure.

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<sup>43</sup> Department of Water Resources. "The DWR Mission". Accessed March 2019 at: <https://water.ca.gov/>

<sup>44</sup> California Department of Water Resources. Accessed March 2019 at: <https://water.ca.gov/What-We-Do>



Infrastructure - We're responsible for the construction, maintenance, evaluation, and safety of a number of water infrastructure facilities, including 34 storage facilities, 21 dams, and 705 miles of canals and aqueducts.

Recreation - The SWP provides extensive recreational activities, including camping, boating, swimming, hiking, and fishing. We invite the public to explore our 3 visitors centers.

Sustainability - Sustainability is one of our core values; the goal of our work is to ensure the ability of natural ecosystems to meet the needs of future generations.”<sup>45</sup>

#### California Water Boards Central Valley - R5

The California Water Boards Central Valley – R5 (Region 5) defines their missions as, “To preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use, for the benefit of present and future generations.”<sup>46</sup> In addition, the CA Water Boards Central Valley – R5 indicates their Duty as, “The primary duty of the Regional Board is to protect the quality of the waters within the Region for all beneficial uses. This duty is implemented by formulating and adopting water quality plans for specific ground or surface water basins and by prescribing and enforcing requirements on all agricultural, domestic and industrial waste discharges. Specific responsibilities and procedures of the Regional Boards and the State Water Resources Control Board are contained in the [Porter-Cologne Water Quality Control Act](#).”<sup>47</sup>

#### SB 610 (Costa, 2001)

This Bill requires additional information to be included as part of an urban water management plan if groundwater is identified as a source of water available to the supplier. This law also requires an urban water supplier to include in the plan a description of all water supply projects and programs that may be undertaken to meet total projected water use.

#### SB 221 (Kuehl, 2001)

This Bill prohibits approval of a tentative subdivision map, or a parcel map for which a tentative subdivision map is not required, or a development agreement for a subdivision of property of more than 500 dwelling units unless the city or county provides written verification from the applicable public water system that a sufficient water supply is available. In addition, the law requires the city or county make a finding that sufficient water supplies are, or will be, available prior to completion of the project.

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<sup>45</sup> California Department of Water Resources. Accessed March 2019 at: <http://www.water.ca.gov/about/mission.cfm>.

<sup>46</sup> The California Water Boards Central Valley – R5. Accessed March 2019 at: [https://www.waterboards.ca.gov/centralvalley/about\\_us/](https://www.waterboards.ca.gov/centralvalley/about_us/)

<sup>47</sup> Ibid.



## ***Local Policy & Regulations***

### Tulare County Environmental Health Services

“The mission of the Division of Environmental Health is to enhance the quality of life in Tulare County through implementation of environmental health programs that protect public health and safety as well as the environment. We accomplish this goal by overseeing and enforcing numerous different programs, from food facility inspections to hazardous waste. All of our inspectors are licensed and/or certified in the field that they practice in and participate in continuing education to maintain licensure.”<sup>48</sup> This division requires water quality testing of public water systems. Any project that involves septic tanks and water wells within Tulare County is subject to approval by this agency. All recommendations provided by this division will be added as mitigation measures to ensure reduction of environmental impacts.

### Tulare County General Plan Policies

The Tulare County General Plan has a number of policies that apply to projects within County of Tulare. General Plan policies that relate to the proposed Project are listed as follows:

**PF-4.14 Compatible Project Design** - The County may ensure proposed development within CACUABs is compatible with future sewer and water systems, and circulation networks as shown in city plans.

**AG-1.17 Agricultural Water Resources** - The County shall seek to protect and enhance surface water and groundwater resources critical to agriculture. The County shall seek to protect and enhance surface water and groundwater resources critical to agriculture.

**HS-4.4 Contamination Prevention** - The County shall review new development proposals to protect soils, air quality, surface water, and groundwater from hazardous materials contamination.

**HS-5.2 Development in Floodplain Zones** - The County shall regulate development in the 100-year floodplain zones as designated on maps prepared by FEMA in accordance with the following:

1. Critical facilities (those facilities which should be open and accessible during emergencies) shall not be permitted.
2. Passive recreational activities (those requiring non-intensive development, such as hiking, horseback riding, picnicking) are permissible.
3. New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions.

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<sup>48</sup> Tulare County Environmental Health Division, Who Are We. Accessed March 2019 at: <https://tularecountyeh.org/eh/index.cfm/about-us/who-are-we/>



**HS-5.4 Multi-Purpose Flood Control Measures** - The County shall encourage multipurpose flood control projects that incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the County's streams, creeks, and lakes. Where appropriate, the County shall also encourage the use of flood and/or stormwater retention facilities for use as groundwater recharge facilities.

**HS-5.9 Floodplain Development Restrictions** - The County shall ensure that riparian areas and drainage areas within 100-year floodplains are free from development that may adversely impact floodway capacity or characteristics of natural/riparian areas or natural groundwater recharge areas.

**HS-5.11 Natural Design** - The County shall encourage flood control designs that respect natural curves and vegetation of natural waterways while retaining dynamic flow and functional integrity.

**WR-2.1 Protect Water Quality** - All major land use and development plans shall be evaluated as to their potential to create surface and groundwater contamination hazards from point and non-point sources. The County shall confer with other appropriate agencies, as necessary, to assure adequate water quality review to prevent soil erosion; direct discharge of potentially harmful substances; ground leaching from storage of raw materials, petroleum products, or wastes; floating debris; and runoff from the site.

**WR-2.2 National Pollutant Discharge Elimination System (NPDES) Enforcement** - The County shall continue to support the State in monitoring and enforcing provisions to control non-point source water pollution contained in the U.S. EPA NPDES program as implemented by the Water Quality Control Board.

**WR-2.3 Best Management Practices (BMPs)** - The County shall continue to require the use of feasible BMPs and other mitigation measures designed to protect surface water and groundwater from the adverse effects of construction activities, agricultural operations requiring a County Permit and urban runoff in coordination with the Water Quality Control Board.

**WR-2.4 Construction Site Sediment Control** - The County shall continue to enforce provisions to control erosion and sediment from construction sites.

**WR-2.5 Major Drainage Management** - The County shall continue to promote protection of each individual drainage basin within the County based on the basins unique hydrologic and use characteristics.

**WR-2.6 Degraded Water Resources** - The County shall encourage and support the identification of degraded surface water and groundwater resources and promote restoration where appropriate.



**WR-2.8 Point Source Control** - The County shall work with the Regional Water Quality Control Board to ensure that all point source pollutants are adequately mitigated (as part of the California Environmental Quality Act review and project approval process) and monitored to ensure long-term compliance.

**WR-3.3 Adequate Water Availability** - The County shall review new development proposals to ensure the intensity and timing of growth will be consistent with the availability of adequate water supplies. Projects must submit a Will-Serve letter as part of the application process, and provide evidence of adequate and sustainable water availability prior to approval of the tentative map or other urban development entitlement.

**WR-3.5 Use of Native and Drought Tolerant Landscaping** - The County shall encourage the use of low water consuming, drought-tolerant and native landscaping and emphasize the importance of utilizing water conserving techniques, such as night watering, mulching, and drip irrigation.

**WR-3.6 Water Use Efficiency** - The County shall support educational programs targeted at reducing water consumption and enhancing groundwater recharge.

**WR-3.10 Diversion of Surface Water** - Diversions of surface water or runoff from precipitation should be prevented where such diversions may cause a reduction in water available for groundwater recharge.

## IMPACT EVALUATION

### Would the project:

- a) **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?**

Project Impact Analysis:

*Less Than Significant Impact*

“The Hydrology and Water Quality Report for Proposed Concrete and Asphalt Batch Plant” (Hydrology and Water Quality Report) report (prepared by qualified expert consultants Mason GeoScience), included in Appendix “E” of this document, contains an in-depth analysis regarding the Project’s impact to this resource item.

“Septic System

The Onsite Wastewater Treatment System (OWTS) is located on the west side of the office and is constructed with a dual chamber septic tank that is four feet wide by nine feet long by four feet deep and approximately 1,000 gallon volume. Effluent from the septic tank is leached into a four foot diameter by 30 foot deep concrete lined seepage pit. Available information for the septic system indicates it was repaired in January 1978. The septic system



was utilized for onsite use. According to the site owner, the currently permitted OWTS is functioning and is expected to be utilized for the proposed operations.

Onsite wastewater systems in the area are served by private septic systems. The City of Visalia Boundary is located on the north side of Avenue 280, north of the site. There are no city sewer or stormwater conveyance structures near the site.

On April 5, 2018, the State Water Resources Control Board (SWRCB) approved the Local Agency Management Program (LAMP) for Tulare County. The Central Valley Regional Water Quality Control Board approved Resolution R5-2018-0009 applies to the Local Agency Management Program (LAMP) for the Tulare County Resource Management Agency and Tulare County Environmental Health Division (CRWCQB, 2018).

The LAMP provides a new regulatory framework for the permitting of Onsite Wastewater Treatment Systems (OWTS). The Tulare County Environmental Health Services Division (TCEHSD) prepared a document to advise local OWTS designers and other stakeholders of some of the major changes in the LAMP as follows (Tulare County, 2018).

The SWRCB adopted the final version of the Water Quality Control Policy for Siting, Design, Operation and Maintenance of OWTS in May 2013. Pursuant to Water Code Section 13291 (b)(3), the adopted policy describes requirements authorizing a qualified local agency to implement the adopted policy. The LAMP policies are developed by the local agencies based on local conditions. Approval of Tulare County's LAMP by the SWRCB allows the LAMP to become the standard by which the County will regulate OWTS. This approach allows for greater flexibility at the local level, rather than a "one size fits all" approach outlined by the State.

The LAMP covers the installation of new & replacement OWTS, as well as repair systems for existing OWTS. The LAMP is not intended to cover OWTS that have the following characteristics.

- Existing OWTS that are functioning normally.
- Proposed OWTS that will have design waste flow of greater than 3,500 gallons per day.
- OWTS with anticipated high amounts of fats, oils & grease (FOG), or OWTS with anticipated high values for Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS).
- OWTS that will require nitrogen reduction to mitigate certain limiting conditions.
- OWTS with supplemental treatment systems

When the above listed special conditions apply to a proposed/replacement OWTS, the application for the OWTS may be referred to the SWRCB for review and/or permitting.

The project OWTS is currently functional and is expected to be utilized for the proposed operations. If the current system is functioning normally and does not meet any of the other



four characteristics outlined in bullet points above, it will not be required to fall under the conditions of the Tulare County LAMP and should be allowed for use considering it is fully functional and can handle design flows for proposed operations. If the on-site OWTS is not fully functional and meets any of the other four characteristics outlined in bullet points above, the system will not be covered by the Tulare County LAMP and will be referred to the SWRCB for review and/or permitting.

If new, replacement, or repair of the existing system is proposed or required for the site, the design and construction will fall under the Tulare County LAMP regulatory standards for the installation of new & replacement OWTS, as well as repair systems for the existing OWTS. It is our understanding that the project OWTS is permitted and fully functional and will be utilized for the proposed operations. Therefore, impact from the project OWTS is less than significant.”<sup>49</sup>

In addition to septic systems, the Hydrology and Water Quality Report also provided in-depth analysis for potential stormwater impacts as a result of the Project and provides substantial evidence that the Project would result in less than significant impact.

#### “Stormwater

The Federal Clean Water Act, as amended in 1987, is the principal legislation for establishing requirements or the control of stormwater pollutants from urbanization and related activities. The State Porter-Cologne Act (Water Code 13000, et seq.) is the principal legislation for controlling stormwater pollutants in California. In 1972, the Federal Water Pollution Control Act (also referred to as the Clean Water Act [CWA]) was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with an NPDES permit. The 1987 amendments to the CWA added Section 402(p), which establishes a framework for regulating municipal and industrial stormwater discharges, including discharges associated with construction activities, under the NPDES Program (CSQA Industrial/Commercial, 2003).

In California, the State Water Resources Control Board (SWRCB) through the nine Regional Water Quality Control Boards (RWQCB) administers the NPDES stormwater permitting program. For industrial facilities and construction activities, the SWRCB elected to issue statewide general permits that apply to all stormwater discharges requiring an NPDES permit (CSQA Industrial/Commercial, 2003).

Construction and commercial activities regarding stormwater best management practices (BMPs) for the site should be identified under a Stormwater Pollution Prevention Plan (SWPPP). BMPs are measures to prevent or mitigate pollution. Potential sources of pollution could include maintenance of machinery, the asphalt plant, and concrete plant. Pollutants

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<sup>49</sup> “The Hydrology and Water Quality Report for Proposed Concrete and Asphalt Batch Plant” report (Hydrology and Water Quality report). September 2018. Pages 29-30. Prepared by Mason GeoScience, included in Appendix “E” of this document.



could include petroleum hydrocarbons such as oil and grease, gasoline constituents, diesel constituents, natural gas, and suspended solids.

SWPPP requirements include the following (General Permit, 2012).

The discharger shall ensure that the Storm Water Pollution Prevention Plans (SWPPPs) for all traditional project sites are developed and amended or revised by a qualified SWPPP Developer (QSD). The SWPPP shall be designed to address the following objectives:

- 1) All pollutants and their sources, including sources of sediment associated with construction, construction site erosion and all other activities associated with construction activity are controlled.
- 2) Where not otherwise required to be under a Regional Water Board permit, all non-storm water discharges are identified and either eliminated, controlled, or treated.
- 3) Site BMPs are effective and result in the reduction or elimination of pollutants in storm water discharges and authorized non-storm water discharges from construction activity to the BAT/BCT standard.
- 4) Calculations and design details as well as BMP controls for site run-on are complete and correct.
- 5) Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.

To demonstrate compliance with requirements of the General Permit, the QSD shall include information in the SWPPP that supports the conclusions, selections, use, and maintenance of BMPs. The discharger shall make the SWPPP available at the construction site during working hours while construction is occurring and shall be made available upon request by a State or Municipal inspector. When the original SWPPP is retained by a crewmember in a construction vehicle and is not currently at the construction site, current copies of the BMPs and map/drawing will be left with the field crew and the original SWPPP shall be made available via a request by radio/telephone.

For construction activities, selection and implementation of best management practices (BMPs) is based on the pollution risks associated with the construction activity. The pollution prevention objectives of BMPs are defined based on a review of information gathered during the assessment of the site and planned activities (CSQA Construction, 2003). Once defined, BMP objectives are developed and BMPs selected. The BMP objectives for construction projects are as follows:

- Control of Erosion, and Discharge of Sediment:
  - Minimize Disturbed Areas: Only clear land which will be actively under construction in the near term (e.g., within the next 6-12 months), minimize new land disturbance during the rainy season, and avoid clearing and disturbing sensitive areas (e.g., steep slopes and natural watercourses) and other areas where site improvements will not be constructed.



- Stabilize Disturbed Areas: Provide temporary stabilization of disturbed soils whenever active construction is not occurring on a portion of the site. Provide permanent stabilization during finish grade and landscape the site.
- Protect Slopes and Channels: Safely convey runoff from the top of the slope and stabilize disturbed slopes as quickly as possible. Avoid disturbing natural channels. Stabilize temporary and permanent channel crossings as quickly as possible and ensure that increases in runoff velocity caused by the project do not erode the channel.
- Control Site Perimeter: Delineate site perimeter to prevent disturbing areas outside the project limits. Divert upstream run-on safely around or through the construction project. Local codes usually state that such diversions must not cause downstream property damage or be diverted into another watershed. Runoff from the project site should be free of excessive sediment and other constituents. Control tracking at points of ingress to and egress from the project site.
- Retain Sediment: Retain sediment-laden waters from disturbed, active areas within the site.
- Manage Non-Stormwater Discharges and Materials:
  - Practice Good Housekeeping: Perform activities in a manner to keep potential pollutants from coming into contact with stormwater or being transported off site to eliminate or avoid exposure.
  - Contain Materials and Wastes: Store construction, building, and waste materials in designated areas, protected from rainfall and contact with stormwater runoff. Dispose of all construction waste in designated areas and keep stormwater from flowing onto or off of these areas. Prevent spills and clean up spilled materials.

BMPs for erosion and sediment control are selected to meet the BMP objectives based on specific site conditions, construction activities, and cost. Various BMPs may be needed at different times during construction since activities are constantly changing site conditions. Selection of erosion control BMPs should be based on minimizing disturbed areas, stabilizing disturbed areas, and protecting slopes and channels. Selection of sediment control BMPs should be based on retaining sediment on-site and controlling the site perimeter (CSQA Construction, 2003).

For commercial or industrial BMPs, they are commonly defined two ways: whether they are Non- Structural or Structural and whether they are Source Control or Treatment Control (CSQA Industrial/Commercial, 2003). The following provides a framework for selection of BMPs.

- Non-Structural BMPs - Generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from entering stormwater. They are generally low cost and low technology in nature.
- Structural BMPs - Some prevent the pollutants from reaching stormwater, such as a roof cover. Others treat or remove pollutants in stormwater, such as detention basins.



- Source Control BMPs - Prevent contact between stormwater and the pollution source and can be structural or non-structural. Examples of source control nonstructural and structural BMPs include using alternative less toxic chemicals and covering an activity area that is a pollutant source. Source control BMPs are preferred over treatment control BMPs because they are generally 100% effective if implemented properly and are usually, but not always less costly than treatment control BMPs.

Source Control BMPs include:

- Non-Stormwater Management
  - Non-Stormwater Discharges
  - Spill Prevention, Control and Cleanup
- Vehicle and Equipment Management
  - Vehicle and Equipment Fueling
  - Vehicle and Equipment Cleaning
  - Vehicle and Equipment Repair
- Material and Waste Management
  - Outdoor Loading/Unloading
  - Outdoor Liquid Container Storage
  - Outdoor Equipment Operations
  - Outdoor Storage of Raw Materials
  - Waste Handling and Disposal
  - Safer Alternative Products
- Building and Grounds Management
  - Contaminated or Erodible Areas
  - Building & Grounds Maintenance
  - Building Repair and Construction
  - Parking/Storage Area Maintenance
  - Drainage System Maintenance
- Treatment Control BMPs - Treat the stormwater to remove pollutant(s) and are structural by their basic nature. Treatment control BMPs are not 100% effective, even if maintained and operated properly. There is also uncertainty as to the effectiveness and reliability of treatment control BMPs.

Treatment Control BMPs include:

- Infiltration Trench
- Infiltration Basin
- Retention/Irrigation
- Wet Pond
- Constructed Wetland
- Extended Detention Basin
- Vegetated Swale
- Vegetated Buffer Strip



- Bioretention
- Media Filter
- Water Quality Inlet
- Multiple Systems”<sup>50</sup>

“It is anticipated that a General Stormwater Industrial Facility permit and SWPPP will be obtained for the site. If the current OWTS does not meet Tulare County LAMP requirements, a new OWTS will be constructed to meet the new requirements. It is anticipated that the facility will have infrastructure and activities such as truck washing, proper waste management for items such as used oil, vehicle wash area oil/water separators, sediment traps, and collection sumps. Implementation of these activities and features will ensure less than significant impact.”<sup>51</sup>

#### “Groundwater Quality

The California Department of Public Health’s water system permit application indicates that any well serving drinking water to at least 25 persons for at least 60 days out of the year is a public water system. The facility is not expected to employ more than 25 workers for more than 60 days a year, therefore the site would be considered a non-community water system. The proposed project will utilize the existing domestic well and/or new agricultural well for potable uses associated with the project.

Site specific groundwater quality data were not available. Groundwater quality was assessed near the site from data obtained on the Geotracker GAMA website. Water quality parameters Nitrate as NO<sub>3</sub>, Nitrate as Nitrogen, and Specific Conductance were evaluated from two Public Water Well System Wells near the site. One well is located at the Shell gasoline station approximately 0.8 mile upgradient and east of the site and the second well is located at Sycamore Academy 1.15 miles west and downgradient of the site.

The maximum value for SP in the Shell Water Well was 220 µs/cm between the range of dates analyzed from November 2007 and March 2018. The maximum value for Nitrate as NO<sub>3</sub> was 3.2 mg/L and Nitrate as Nitrogen was 0.57 mg/L from January 2002 through March 2018. The measured parameters do not exceed the regulatory SMCL and MCL.

The maximum value for SP in the Sycamore Academy Water Well was 610 µs/cm between the range of dates analyzed from April 2004 and March 2016. The maximum value for Nitrate as NO<sub>3</sub> in the Sycamore Academy Water Well was 35 mg/L between the range of dates analyzed from April 2004 and September 2015. There was no Nitrate as Nitrogen data available for the Sycamore Academy Water Well. Water quality parameters did not exceed the SMCL or MCL.

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<sup>50</sup> Ibid. 29-33.

<sup>51</sup> Op. Cit. 37.



All infrastructure designed for the site will be constructed to local, state, and/or federal standards. All potential sources of pollution will be designed to retain the pollution and meet regulatory requirements. It is anticipated that the project will require preparation and approval of waste discharge requirements by the Central Valley Regional Water Quality Control Board. Therefore, violation of water quality standards or waste discharge requirements will be less than significant.”<sup>52</sup>

Further, as indicated in the Hydrology and Water Quality Report (see Appendix “E”), “It is anticipated that a General Stormwater Industrial Facility permit and SWPPP will be obtained for the site. If the current OWTS does not meet Tulare County LAMP requirements, a new OWTS will be constructed to meet the new requirements. It is anticipated that the facility will have infrastructure and activities such as truck washing, proper waste management for items such as used oil, vehicle wash area oil/water separators, sediment traps, and collection sumps. Implementation of these activities and features will ensure less than significant impact.”<sup>53</sup>

As such, the Hydrology and Water Quality Report is used as the basis in determining that the Project will have a less than significant impact as project design features; Tulare County policies standards, ordinances, codes, etc.; and other regulatory agencies’ rules, regulations, requirements, orders, standards, permits, thresholds, etc., are implemented as required by each respective agency. Therefore, the Project will not result in a violation of any water quality standards or waste discharge requirements and would result in a ***Less Than Significant Impact***.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is the Tulare Lake Basin. This cumulative analysis is based on information provided in the Water Quality Control Plan for the Tulare Lake Basin and the requirements of Tulare County Environmental Health.

The proposed Project will be required to comply with the all requirements of the Central Valley Water Board and Tulare County Health Services Division (TCHSD). The proposed Project will be required to comply with Regional Water Quality Control Board and TCHSD rules/regulations, orders, permit requirements, etc., as a component of project design features, the proposed Project will not contribute to any cumulative impacts related to this Checklist Item.

Mitigation: ***None Required.***

Conclusion: ***Less Than Significant Impact***

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<sup>52</sup> Op. Cit. 34.

<sup>53</sup> Op. Cit. 37.



With implementation of design features and the other requirements noted above, potential Project-specific and cumulative impacts related to this Checklist Item will be reduced to a *Less Than Significant Impact*.

- b) **Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

Project Impact Analysis:

*Less Than Significant Impact*

A noted earlier, the Hydrology and Water Quality Report was prepared for this Project. The report also provides an in-depth analysis regarding groundwater supply and recharge capabilities. The conclusions contained in the report support a determination that the Project will result in a less than significant impact to this resource.

“The project owner has indicated the project will require 5,000 to 6,000 gallons of water for daily operations; equal to 3.5 to 4.2 gallons of flow per minute from the newly constructed agricultural well located near the northeast corner of the site. Based on these estimates, total annual flow is estimated to be 5.60 to 6.72 acre-feet per year. Anticipated water use for the project will be from the office, dust control, landscaping, and the concrete and asphalt plants.

It is estimated that a one-acre rural residential property with one domestic well utilizes approximately 2.0 to 3.0 acre-feet per year depending on home size and irrigation use. The total estimated groundwater usage for the project of between 5.60 and 6.72 acre-feet is approximately twice that of the average rural residential property with a domestic well. Therefore, depletion of groundwater by the project will be less than significant.

The estimated change in storage beneath the 19.98 acre site was calculated with change in groundwater elevation across various date range spanning the years 2003 through 2018 in the fall and spring seasons. These temporal and groundwater elevation data were reviewed from the Department of Water Resources GICIMA. The 2013 California Water Plan reports minimum and maximum specific yields values for the southern San Joaquin Valley aquifer system of 0.07 and 0.17. Table 3 [in the report, **Table 3.10-3** herein] shows the calculated minimum and maximum change in storage beneath the site for various date ranges.

The minimum specific yield (0.07), 19.98 acre site, and groundwater elevation changes yielded a minimum change in storage of 1.1 acre-feet and a maximum of 69.9 acre-feet. The average change in storage was 28.5 acre-feet across all date ranges [See **Table 3.10-3**, part of Table 3 in the report].

The maximum specific yield (0.17), 19.98 acre site, and groundwater elevation changes yielded a minimum change in storage of 2.7 acre-feet and a maximum of 169.8 acre-feet. The average change in storage was 67.5 acre-feet across all date ranges [See **Table 3.10-3** (part of Table 3 in the report)].



Draft Environmental Impact Report  
Dunn Asphalt and Concrete Batch Plant  
SCH #: 2019011039

**Table 3.10-3**  
**Change in Storage Beneath Site – Date Ranges 2003 through 2018**

Acres of Site		19.98
Specific Yield, Sy =		
0.07 (min.)		0.17 (max.)

Date Range	Elevation Change (Feet)	Change in Storage Acre-Feet (Sy = 0.07)	Change in Storage Acre-Feet (Sy = 0.17)
S2018-S2017	10	14.0	34.0
S2018-S2015	<b>0.8</b>	1.1	2.7
S2018-S2013	<b>15.5</b>	21.7	52.6
S2018-S2008	30	42.0	101.9
F2017-F2016	10	14.0	34.0
F2017-F2012	20	28.0	67.9
S2017-S2016	10	14.0	34.0
S2017-S2014	18	25.2	61.1
F2016-F2011	30	42.0	101.9
S2016-S2015	10	14.0	34.0
S2016-S2013	40	55.9	135.9
S2016-S2011	45	62.9	152.8
S2016-S2006	50	69.9	169.8
F2015-F2012	20	28.0	67.9
S2015-S2014	<b>9</b>	12.6	30.6
S2015-S2012	<b>29.3</b>	41.0	99.5
F2014-F2013	<b>9</b>	12.6	30.6
F2014-F2011	<b>22.3</b>	31.2	75.7
S2014-S2013	<b>7.3</b>	10.2	24.8
S2013-S2012	<b>13</b>	18.2	44.2
S2013-S2003	18	25.2	61.1
	MAXIMUM	69.9	169.8
	MINIMUM	1.1	2.7
	ARITHMETIC MEAN	28.5	67.5
<i>Notes:</i> <b>Values in Bold = Nearby Well 19S24E08D002M</b> Values in Black = Interpolated from GICIMA Contours *Data from DWR Groundwater Information Center Interactive Map Application **Specific Yield values from 2013 California Water Plan Update <i>Source: Hydrology and Water Quality Report, Page 35. (Included in Appendix "E" of this document).</i>			

The overall calculated changes in storage beneath the site ranged from 1.1 acre feet to 169.8 acre-feet. One date range, from spring 2015 to spring 2018 included a groundwater elevation change of 0.8 feet and yielded a change in storage between those years of 1.1 acre-feet. Most of the calculated changes in storage were a magnitude larger than the minimum and were greater than the estimated changes in storage for the site of 5.60 to 6.72 acre-feet. Therefore, based on historical changes in groundwater beneath the site, the planned 5,000 to 6,000 gallon per day of groundwater usage for the project, and reliability of the water source, the project is not expected to substantially deplete or lower the groundwater table around the site and is less than significant.



We estimate approximately 19.0 acres of the site will be graded and covered with gravel and DG surfacing based on the provided site plan overlain on Figure 2 [in the report]. Run-off and run-on to the site is expected to be controlled with engineered grading. The project is anticipated to include a storm water basin engineered to handle surface water runoff and will also provide recharge. Therefore, the project will not substantially deplete recharge and impact is less than significant.”<sup>54</sup>

With the implementation of regulatory agencies’ (e.g., Regional Water Quality Control Board and TCHSD) rules/regulations, orders, permit requirements, etc., as a component of project design features, proposed Project impacts related to this Checklist Item will result in a ***Less Than Significant Impact***.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is the Tulare Lake Basin. This cumulative analysis is based on the information provided in the “*California Water Plan Update 2009*” and “*California Water Plan Update 2013*”, *Regional Report 3, Tulare Lake*.

As part of the Tulare County General Plan 2030, a number of large projects were identified in the General Plan Draft EIR. After considering these projects, it was noted in the General Plan Draft EIR that a cumulative unavoidable impact to ground water supply would occur.

With the implementation of regulatory agencies’ (e.g., Regional Water Quality Control Board and TCHSD) rules/regulations, orders, permit requirements, etc., as a component of project design features, the cumulative impacts related to this Checklist Item would be ***Less Than Significant***.

Mitigation: ***No Required.***

Conclusion: ***Less Than Significant Impact***

- c) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**
- i) **Result in substantial erosion or siltation on- or off-site?**
  - ii) **Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**
  - iii) **Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

Project Impact Analysis: ***Less Than Significant Impact***

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<sup>54</sup> Op. Cit. 34-36.



i) – iii) - As indicated in the Hydrology and Water Quality Report (see Appendix “E” of this DEIR), “The project will require an engineered grading plan to control surface water runoff and divert the runoff to an on-site stormwater pond. Based on the proposed sit plan, a majority of the site will be covered in DG or gravel and the remaining portion around the office is to be paved asphalt. Engineered grading to include gravel/DG surface cover will significantly impede erosion of surface soils on and off site.

The site is not crossed by any rivers, streams, canals, or irrigation ditches. The South Fork of the Persian Ditch is located 1,110-feet northwest of the site. Evans Ditch is located 1,180-feet southeast of the site. These ditches direct surface water for irrigation of surrounding farmland. These surface water features are not expected to inundate the site under normal flow conditions throughout the year and their drainage pattern will not be altered due to the project and therefore is considered less than significant impact.”<sup>55</sup>

“The surface topography of the site is relatively flat. Grading for the site is anticipated to include an engineered grading design approved and permitted by Tulare County. The final grading of the site should control the drainage pattern of the site to a stormwater retention pond. A majority of the site will be covered in DG or gravel and the remaining portion around the office is to be paved asphalt. Engineered grading to include gravel/DG surface cover will allow surface flow to be directed to an on-site retention pond. In addition, drainage around the surrounding area of the concrete batch plant will be conveyed to a collection point onsite for containment and recycling further controlling site surface water flow. Figure 2 [in the Hydrology and Water Quality Report included in Appendix “E” of this DEIR] shows possible locations of the stormwater basin and recycled water containment. Final locations for these two features will be based on a final engineered design prepared by a California licensed Civil Engineer and may be located at other locations other than shown. Changes to the site drainage pattern will not impact the nearby Persian of Evans ditches and therefore will be no impact.”<sup>56</sup>

Further, as also noted in the Hydrology and Water Quality Report, “It is anticipated that a SWPPP will be prepared for the site and a stormwater basin will be constructed to have adequate capacity for a 50 year storm event. As such, no impacts are expected to occur.”<sup>57</sup>

Therefore, based on expert opinion/conclusion contained in the Hydrology and Water Quality Report (see Appendix “E” of this DEIR) prepared by qualified experts/consultants Mason GeoScience, the Project would result in a ***Less Than Significant Impact***.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County. Alteration of a stream or river would be subject to the regulations of the U.S. Army Corps of Engineers and the

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<sup>55</sup> Op. Cit. 36-37.

<sup>56</sup> Op. Cit. 37.

<sup>57</sup> Op. Cit. 37.



California Department of Fish and Wildlife. Tulare County 2030 General Plan EIR, and/or “The Hydrology and Water Quality Report for Proposed Concrete and Asphalt Batch Plant” report (Hydrology and Water Quality Report, included in Appendix “E” of this document) prepared by consultants Mason GeoScience.

The proposed Project will not affect the drainage pattern of any off-site parcels, therefore, a Less Than Significant Impact related to this Checklist Item will occur.

As there will be a Less Than Significant Project-Specific impact, there will also be a ***Less Than Significant Cumulative Impact***.

Mitigation: ***None Required.***

Conclusion: ***Less Than Significant Impact***

As noted earlier, the Project would result in a ***Less Than Significant Project-specific or Cumulative Impact*** related to this Checklist Item.

**d) In flood hazard, tsunami, or seich zones, risk release of pollutants due to project inundation?**

Project Impact Analysis: ***No Impact***

As indicated in the Hydrology and Water Quality Report (see Appendix “E” of this DEIR) prepared by qualified experts/consultants Mason GeoScience, “The project site is not located by the ocean, near a lake shore, or in areas of steep slopes and is therefore no impact.” As such, it can reasonably be concluded that the Project would result in ***No Impact***.

Cumulative Impact Analysis: ***No Impact***

This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, Tulare County 2030 General Plan EIR, and/or “The Hydrology and Water Quality Report for Proposed Concrete and Asphalt Batch Plant” report (Hydrology and Water Quality Report, included in Appendix “E” of this document) prepared by consultants Mason GeoScience.

As noted earlier, the proposed Project is not located near a large body of water, the coast or hillsides. The proposed Project will not have any impacts related to this Checklist item on other off-site parcels. ***No Cumulative Impact*** related to this Checklist Item will occur.

Mitigation: ***None Required.***

Conclusion: ***No Impact***



As noted earlier, *No Project-specific or Cumulative Impact* related to this Checklist Item will occur.

e) **Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

Project Impact Analysis: *Less Than Significant Impact*

As the County of Tulare does not have an adopted water quality control plan or sustainable groundwater management plan, the Project will not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Further, as indicated in the Hydrology and Water Supply report (see Appendix “E”), and analyzed in item a), above, the Project is anticipated to use approximately 5.60-6.72 acre-feet (or approximately 0.06 – 0.04%) of the estimated maximum 169.8 acre-feet beneath the site. As such, based on the opinion/conclusion by qualified experts/consultants Mason GeoScience, the Project would result in a *Less Than Significant Impact* to this resource Item.

Cumulative Impact Analysis: *Less Than Significant Impact*

This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, Tulare County 2030 General Plan EIR, and/or “*The Hydrology and Water Quality Report for Proposed Concrete and Asphalt Batch Plant*” report (Hydrology and Water Quality Report, included in Appendix “E” of this document) prepared by consultants Mason GeoScience.

Therefore, based on the estimated groundwater usage, the proposed Project will not have any impact related to this Checklist Item and *No Cumulative Impact* related to this Checklist Item will occur

Mitigation Measure(s): *None Required.*

Conclusion: *Less Than Significant Impact*



## ACRONYMS

AF	Acre-feet
AMP	Agricultural Management Plan
CIMIS	California Irrigation Management Information System
CWA	Federal Clean Water Act
DWR	State of California Department of Water Resources
EPA	United States Environmental Protection Agency
LAMP	Local Agency Management Program
MCL	Maximum Contaminant Level
M&I	Municipal and Industrial
MW	Megawatts
NFIP	National Flood Insurance Program (NFIP)
O&M	Operation and Maintenance
PCE	Tetrachloroethylene
SDWA	Safe Drinking Water Act
TCE	Trichloroethylene
TDS	Total Dissolved Solids
UWMP	Urban Water Management Plan
WSA	Water Supply Assessment

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# Land Use and Planning

## Chapter 3.11

### SUMMARY OF FINDINGS

The proposed Project will result in *Less Than Significant Impacts* to Land Use and Planning. A detailed review of potential impacts is provided in the following analysis.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts to Land Use and Planning. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in Section 15126.2 (a), “[a]n EIR shall identify and focus on the significant environmental effects of the proposed Project. In assessing the impact of a proposed Project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the Project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the Project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision will have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.”<sup>1</sup>

The “Environmental Setting” provides a description of the Land Use and Planning setting in the County. The “Regulatory Setting” provides a description of applicable Federal, State and Local regulatory policies that were developed in part from information contained in the Tulare County

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<sup>1</sup> CEQA Guidelines, Section 15126.2.



2030 General Plan, Tulare County General Plan Background Report and/or Tulare County General Plan Revised DEIR incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the proposed Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

#### Thresholds of Significance

- Divide Community
- Conflict with applicable land use plan policy, or regulation of an agency with jurisdiction over the Project
- Conflict with applicable habitat conservation plan

### **ENVIRONMENTAL SETTING**

#### Tulare County

“Tulare County is located in a geographically diverse region with the majestic peaks of the Sierra Nevada framing its eastern region, while its western portion includes the San Joaquin Valley floor, which is very fertile and extensively cultivated. In addition to its agricultural production, the County’s economic base also includes agricultural packing and shipping operations. Small and medium size manufacturing plants are located in the western part of the county and are increasing in number. Tulare County contains portions of Sequoia National Forest, Sequoia National Monument, Inyo National Forest, and Kings Canyon National Park. Sequoia National Park is entirely contained within the county.”<sup>2</sup>

“The County encompasses approximately 4,840 square miles of classified lands (lands with identified uses) and can be divided into three general topographical zones: a valley region; a foothill region east of the valley area; and a mountain region just east of the foothills. The eastern half of the county is generally comprised of public lands, including the Mountain Home State Forest, Golden Trout Wilderness area, and portions of the Dome Land and south Sierra Wilderness areas. Federal lands, which include wilderness, national forests, monuments and parks, along with County parks, make up 52 percent of the County, the largest percentage found in the County. Agricultural uses, which include row crops, orchards, dairies, and grazing lands on the Valley floor and in the foothills total over 2,020 square miles or about 43 percent of the entire County. Urban uses such as incorporated cities, communities, hamlets, other unincorporated urban uses, and infrastructure rights-of-way make up the remaining land in the County.”<sup>3</sup>

As indicated in the 2018 Regional Transportation Plan & Sustainable Communities Strategy (RTP), Program Environmental Impact Report (SCH #20171010374); “The following eight incorporated cities are located in Tulare County: Dinuba, Exeter, Farmersville, Lindsay,

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<sup>2</sup> Tulare County General Plan 2030 Update RDEIR. Page 3.1-5. Accessed March 2019 at:  
<http://generalplan.co.tulare.ca.us/documents/generalplan2010/RecirculatedDraftEIR.pdf>

<sup>3</sup> Ibid. 3.1-6.



Porterville, Tulare, Visalia and Woodlake. The unincorporated communities of Tulare County are: Alpaugh, Cutler/Orosi, Ducor, Earlimart, East Orosi Goshen, Ivanhoe, Lemon Cove, London, Pixley, Plainview, Poplar/Cotton Center, Richgrove, Springville, Strathmore, Sultana, Terra Bella, Three Rivers, Tipton, Traver, and Woodville. The City of Visalia is the largest city within Tulare County with an estimated population of 128,738 in 2017 accounting for approximately 28 percent of all residents in Tulare County. The City of Tulare is the second largest city with an estimated population (in 2017) of 61,664 followed by Porterville with 58,472 residents. The smallest city is Woodlake with a population of 7,567. As of 2017, the population of Tulare County was 471,842 people.”<sup>4</sup> Also, the RTP indicates that Tulare County’s “Current population is expected to grow to 604,969 persons by 2042 (a difference of 133,127 persons), the horizon year for the RTP.”<sup>5</sup>

In addition to population, the 2018 RTP included Year 2017 employment and forecasts employment 2042. Tulare County’s overall jobs were estimated to be 176,289 in 2017 and forecast to grow 220,210 in 2042.<sup>6</sup> As of June 2019, about 187,700 people were employed in Tulare County and the unemployment rate was 9.1%.<sup>7</sup> By comparison, the statewide unemployment rate was 4.2% during that month, while the national rate was 3.7% in June 2019.<sup>8</sup>

## REGULATORY SETTING

### *Federal Agencies & Regulations*

#### Federal Endangered Species Act

“Through federal action and by encouraging the establishment of state programs, the 1973 Endangered Species Act provided for the conservation of ecosystems upon which threatened and endangered species of fish, wildlife, and plants depend. The Act:

- authorizes the determination and listing of species as endangered and threatened;
- prohibits unauthorized taking, possession, sale, and transport of endangered species;
- provides authority to acquire land for the conservation of listed species, using land and water conservation funds;
- authorizes establishment of cooperative agreements and grants-in-aid to States that establish and maintain active and adequate programs for endangered and threatened wildlife and plants;

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<sup>4</sup> Tulare County Association of Governments. 2018 Regional Transportation Plan & Sustainable Communities Strategy Program Environmental Impact Report. Pages 4.7-1 thru 4.7-2 Accessed March 2019 at: <http://www.tularecog.org/wp-content/uploads/2018/05/4.7-Land-Use-and-Planning.pdf>

<sup>5</sup> Ibid. 3.0 Project Description Page. 3.0-13. Accessed March 2019 at: <http://www.tularecog.org/wp-content/uploads/2018/05/3.0-Project-Description.pdf>.

<sup>6</sup> Op. Cit. 3.0-39.

<sup>7</sup> State of California Employment Development Department. Accessed August 2019 at: <https://www.labormarketinfo.edd.ca.gov/geography/tulare-county.html>

<sup>8</sup> State of California Employment Development Department. Accessed August 2019 at: [https://www.edd.ca.gov/About\\_EDD/pdf/urate201907.pdf](https://www.edd.ca.gov/About_EDD/pdf/urate201907.pdf).



- authorizes the assessment of civil and criminal penalties for violating the Act or regulations;
- authorizes the payment of rewards to anyone furnishing information leading to arrest and conviction for any violation of the Act or any regulation issued there under.”<sup>9</sup>

## **State Agencies & Regulations**

### California Department of Fish and Wildlife

The Mission of the Department of Fish and Wildlife (CDFW) is to manage California’s diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public.<sup>10</sup> The Department of Fish and Game maintains native fish, wildlife, plant species and natural communities for their intrinsic and ecological value and their benefits to people. This includes habitat protection and maintenance in a sufficient amount and quality to ensure the survival of all species and natural communities. The department is also responsible for the diversified use of fish and wildlife including recreational, commercial, scientific and educational uses. CDFW also regulates the modification of the bed, bank, or channel of a waterway under Sections 1601-1607 of the California Fish and Game Code.<sup>11</sup>

### California Endangered Species Act

“The California Endangered Species Act (CESA) states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. The Department will work with all interested persons, agencies and organizations to protect and preserve such sensitive resources and their habitats. CESA prohibits the take of any species of wildlife designated by the California Fish and Game Commission as endangered, threatened, or candidate species. CDFW may authorize the take of any such species if certain conditions are met.”<sup>12</sup>

## ***Local Policy & Regulations***

### Tulare County Association of Governments

“[The Tulare County Association of Governments] TCAG is committed to improving the quality of life for residents and visitors throughout Tulare County. We prove our commitment by addressing congestion using a preventative approach. We coordinate regional transit programs to make getting around easy and convenient. We have improved air quality and strive to continue to meet national standards. We responsibly use the extra hard earned tax dollars that the people of

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<sup>9</sup> U.S. Fish and Wildlife Service. Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service. <https://www.fws.gov/laws/lawsdigest/esact.html>. Accessed March 2019.

<sup>10</sup> California Department of Fish and Wildlife. Explore: Mission Statement. <https://www.wildlife.ca.gov/Explore.aspx>. Accessed March 2019.

<sup>11</sup> Tulare County General Plan 2030 Update, Background Report. Page 9-7.

<sup>12</sup> California Department of Fish and Wildlife. California Endangered Species Act. <http://www.dfg.ca.gov/habcon/cesa/>. Accessed March 2019.



Tulare County bring in to us from the passage of Measure R under the supervision of the board and citizen's review committee. We address current and future rail needs and possibilities with a forward thinking approach. We gather important data which is used by the census and the public to properly forecast housing and transit needs. We also manage the abandoned vehicle program for the county, and do a whole lot more. We are thrilled to be a part of one of the largest agricultural centers in the world, and are preparing the region for forecasted growth predicted to make Tulare County the fastest growing region in California.”<sup>13</sup> TCAG's 2009 Regional Blueprint includes a goal of a 25% increase in land use densities facilitated with urban growth and expansion of transportation facilities.

#### Tulare County General Plan Policies

The Tulare County General Plan has a number of policies that apply to projects within County of Tulare. General Plan policies that relate to the proposed Project are listed below.

**ED-2.2 Land Requirements** - The County shall ensure there is capacity for new and expanding businesses by:

1. Reserving sufficient locations for industry, recognizing industry's need for greater land requirements;
2. Recognizing the need for a variety of locations to avoid creation of a monopoly of the industrial land market and to reflect varying requirements for transportation facilities and utility services; and
3. Reserving land for exclusive industrial use to encourage development of like industries that complement each other and to prevent encroachment on industrial areas by incompatible uses.

**ED-2.3 New Industries** - The County shall encourage new industries to locate within cities, unincorporated communities, hamlets, regional growth corridors, and other unincorporated County areas where appropriately zoned. The County, in cooperation with cities and communities will identify locations for industrial uses in unincorporated areas around cities consistent with the cities' economic development strategies, taking into account opportunities offered by variations in local environmental conditions.

**ED-3.1 Diverse Economic Base** - The County shall actively promote the development of a diversified economic base by continuing to promote agriculture, recreation services, and commerce, and by expanding its efforts to encourage industrial development including the development of energy resources.

**LU-5.1 Industrial Developments** - The County shall encourage a wide range of industrial development activities in appropriate locations to promote economic development, employment opportunities, and provide a sound tax base.

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<sup>13</sup> Tulare County Council of Governments (TCAG) Website. What We Do. Accessed March 2019 at: <http://www.tularecog.org/aboutus/>.



**LU-5.4 Compatibility with Surrounding Land Use** - The County shall encourage the infill of existing industrial areas and ensure that proposed industrial uses will not result in significant harmful impacts to adjacent land uses.

## Impact Evaluation

**Would the project:**

**a) Physically divide an established community?**

Project Impact Analysis: *No Impact*

The proposed Project does not include the construction of a major highway or railroad track. The site is west of the City of Visalia city limit; however, it is located within the Visalia Urban Area Boundary (UAB). Despite its proximity to Visalia, it is nonetheless outside of Visalia's UAB and subject to the Memorandum of Understanding between the City of Visalia and County of Tulare. The County's County Adopted City UAB development policies are referenced in a Memorandum of Understanding (MOU) between the County and City of Visalia that was executed on November 19, 2012. The MOU reiterates that properties located within the CACUAB/UAB are subject to the Tulare County General Plan.

The Project lies within a CACAUB where the Rural Valley Lands Plan checklist is not applicable in either a formal or advisory capacity. As such, the RVLP Checklist is not applicable to the project. Therefore, the Project site is eligible to receive a special use permit which would allow the Project to proceed toward development consistent with Conditions of Approval, implementation of Mitigation Measures where appropriate, project design features, and other agencies' applicable guidelines, orders, permits, regulations, rules, standards, thresholds, etc.

Therefore, *No Project-specific Impact* related to this Checklist Item will occur.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

With No Project-specific Impacts, *No Cumulative Impacts* will also occur.

Mitigation: *None Required.*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item will occur.



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**b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?**

Project Impact Analysis:

***Less Than Significant Impact***

As discussed in Item a), earlier, the Project is consistent with the Tulare County General Plan, Zoning Ordinance, CACUAB for Visalia, and complies with the Memorandum of Understanding between the County of Tulare and City of Visalia. Lastly, Tulare County is located in the Central Valley and does not border a coastline; as such, projects located within Tulare County could not possibly impact a local coastal program.

**Table 3.11-1** provides a summary of the Project's consistency with applicable goals, objectives, and policies of the Tulare County General Plan and the Memorandum of Understanding between the County of Tulare and City of Visalia.

<b>Table 3.11-1</b>			
<b>General Plan Consistency Analysis</b>			
<b>Chapter – Element</b>	<b>No.</b>	<b>Goal/Objective/Policy Text</b>	<b>Consistency Determination</b>
<b>Planning Framework</b>	<b>4.18</b>	<p>Future Land Use Entitlements in a CACUDB The County may work with an individual city to limit any General Plan amendments to change the land use designations of any parcel or any amendments to the County zoning ordinance to add uses to a current zoning classification or change the zoning district designation of any parcel within a CACUDB except as follows:</p> <p>1. This policy will not apply to amendments or changes to a County unincorporated UDB, Hamlet Development Boundary (HDB), including where the boundary line may increase an outward expansion of the overlap area with a CACUDB area that is not coterminous to the city's Urban Development Boundary/Sphere of Influence (UDB or SOI), or to any General Plan amendment adopting a new County unincorporated UDB, an HDB, or Planned Community, County Corridor development nodes will not be located inside a city's UDB or SOI unless mutually agreed by the City and County.</p> <p>2. This policy will not apply where the General Plan land use designation or the zoning district classification of a particular parcel is inconsistent with an existing special use permit, or legal non-conforming use.</p> <p>3. As determined by the RVLP checklist, the County shall encourage beneficial reuse of</p>	<p><b>Yes:</b> The Project lies within a CACAUB, where the RVLP Checklist is not applicable in either a formal or advisory capacity. Therefore, the RVLP Checklist is not applicable to the project.</p> <p>City of Visalia provided comments to the Tulare County during the Project Review Committee (PRC) process. In summary, the City expressed concerns that the Project: (a) Is inconsistent with the City's Land Use Element designation for Agriculture along Avenue 280, specifically, that a batch plant would disrupt the commercial agricultural nature of the area; (b) If the Site remains unpaved there is the potential for groundwater contamination (due to unforeseen spills of asphaltic soils and binders) and operations on unpaved surfaces would generate significant and prolonged air quality and visibility degradation due to fugitive dust and release of volatile and organic particulate matter; (c) Adequacy of SR 99/Avenue 280 interchange and the existing road network to accommodate additional truck trips and potential to create serious traffic safety conflict between slow turning trucks and commuting traffic; and (4) The economic benefit would not likely outweigh the detrimental impacts resulting from the Project at that location. The City further notes that it recognizes the importance of batch plants in the physical development and economic vitality of the County and its</p>



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Table 3.11-1 General Plan Consistency Analysis			
Chapter – Element	No.	Goal/Objective/Policy Text	Consistency Determination
		<p>existing or vacant agricultural support facilities for new businesses (including nonagricultural uses), and for which the city cannot or will not annex as per PF-4.24.</p> <p>4. This policy will not apply where the effect of the amendments to the General Plan land use designation or of the rezoning is to designate or zone the parcel to an agricultural designation or zone except where the effect of the amendment creates a less intensive agricultural designation or zone.</p> <p>5. This policy will not apply where amendments to the General Plan land use designations or the zoning classifications apply only to that portion of a CACUDB that is overlapped (where exterior UDB's are coterminous) by a County unincorporated UDB, Hamlet Development Boundary (HDB), or Corridor Plan area.</p> <p>6. This policy will not apply where amendment to the General Plan land use designation or the zoning classification is required to bring the County regulations into compliance with more restrictive State or Federal statutes or regulations.</p> <p>7. This policy will not apply where amendments to the Zoning Ordinance are part of a comprehensive modernization or restructuring of the processes or procedures set out in the Zoning Ordinance or part of a comprehensive update to the text of the zoning classifications to bring the Zoning Ordinance procedures and text into consistency with the General Plan update. [This comprehensive modernization, restructuring or update would not include any rezoning outside that allowed in this policy. However, revision of processes and procedures and simplification of existing ordinances may occur.]</p> <p>8. This policy would not apply to a comprehensive update of a CAC General Plan, including rezoning there under, in cooperation with the affected city.</p> <p>9. This policy would not apply where the County has worked with the city to identify and structure a mutually acceptable alternative General Plan land use designation or zoning classification.</p>	<p>Cities. Lastly, the City further notes that “imposition of reasonable conditions” to mitigate environmental impacts include on-site surfacing of driving and parking areas, containment and control measures to preclude groundwater contamination, and measures to control fugitive dust and volatile [organic compounds] emissions generated by plant operations.</p> <p>The concerns expressed in the City’s letters are addressed and analyzed in this EIR. See Section 3.11 at Items a), above, and b), also above, regarding land use consistency; Section 3.3 Air Quality (which includes compliance with applicable San Joaquin Unified Air Pollution control District permits, regulations, rules, etc.) regarding fugitive dust and all air emissions, including volatile organic compounds; Sections 3.8 Hazards and Hazardous Materials (which includes Mitigation Measures 8-1 and 8-2) and 3.9 Hydrology and Water Quality (which includes compliance with Tulare County General Plan Policies, Regional Water Quality Control Board and TCHSD rules/regulations, orders, permit requirements, etc., as a component of project design features, Section 3.17 Transportation (which includes mitigation in the form of an equitable share of unfunded portions of the SR 99/Avenue 280 interchange, as applicable) and Conditions of Approval as applicable to County roadways. Chapter 2 Project Description and Chapter 6 Economic, Social, and Growth-Inducing Effects, both contain discussions regarding economic impacts.</p>



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Table 3.11-1 General Plan Consistency Analysis			
Chapter – Element	No.	Goal/Objective/Policy Text	Consistency Determination
Planning Framework	4.19	Future Land Use Entitlements in a CACUAB. As an exception to the County policies that the Rural Valley Lands Plan (RVLP) does not apply within CACUDBs and is only advisory within CACUABs, the County may work with an individual city to provide that no General Plan Amendments or rezonings will be considered to change the current land use designation or zoning classification of any parcel within a CACUAB unless appropriate under the requirements of the Rural Valley Lands Plan (RVLP) or similar checklist or unless the County has worked with the city to identify and structure an acceptable alternative General Plan land use designation or zoning designation. This policy shall not apply within a County unincorporated UDB, an HDB, or Corridor Plan area where that area overlaps a CACUAB areas.	<b>Yes:</b> The proposed Project will be located within the County Adopted City Urban Area Boundary of Visalia, and as such, potential impacts are analyzed with regards to resources within the jurisdiction (i.e., General Plan and Zoning Ordinance) of the County of Tulare County and consistent with the MOU between the County of Tulare and City of Visalia.
Planning Framework	4.21	Application of RVLP Checklist to Control Development in a CACUAB. As an exception to the County policies that the Rural Valley Lands Plan is only advisory within CACUABs, the County may work with an individual city to provide that the requirements of the RVLP will apply to applications for special use permits (including special use permits for the expansion of a non-conforming use), variances considered under Government Code § 65906, or to the extent allowed by law, divisions of land within a CACUAB except in those areas that overlap with a County unincorporated UDB, an HDB, or Corridor Plan area. Such a special use permit, variance, or division of land will be reviewed in light of impacts on such regional concerns as water and sewage disposal availability and preservation of transportation and utility corridor.	<b>Yes:</b> This policy enables agreement between the County and cities to limit conversion of agricultural land for properties in the CACUAB/UAB to non-agricultural uses to those that qualify for such conversion under the RVLP. As stated in the policy, Corridor Plan Areas are a clear exception to this policy. Since the project is located in a Corridor Plan Area, this policy does not apply to the project, and would not apply even if the City and County agreed to otherwise apply the RVLP to development within the CACUAB. Therefore, the RVLP requirements of this policy do not apply to the project, in either a formal or advisory capacity. As such this policy will not apply to any use permits, variances or parcels maps if the Corridor Plan is approved.

The proposed Project is an appropriate use for the site, and as demonstrated in **Table 3.11-1**, the proposed Project will be consistent with applicable objectives, goals and policies outlined in the Tulare County General Plan 2030 Update as well as Memorandum of Agreement between the County of Tulare and City of Visalia.

As such, *Less Than Significant Project-specific Impacts* related to this Checklist Item will occur.

Cumulative Impact Analysis:

*Less Than Significant Impact*



The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

The proposed issuance of a Special Use Permit does not include any variances and will not result in significant impact related to a conflict with a policy or plan. ***Less Than Significant Cumulative Impacts*** related to this Checklist Item will occur.

Mitigation: ***None Required.***

Conclusion: ***Less Than Significant Impact***

As noted earlier, ***Less Than Significant Project-specific and Cumulative Impacts*** related to this Checklist Item will occur.

## ACRONYMS

CACUAB	County Adopted City Urban Area Boundary
CDFW	Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
DEIR	Draft Environmental Impact Report
EDD	State of California Employment Development Department
MOU	Memorandum of Understanding
RDEIR	Recirculated Draft Environmental Impact Report
RTP	Regional Transportation Plan & Sustainable Communities Strategy
RVLP	Rural Valley Lands Plan
TCA	Tulare County Association of Governments
UAB	Urban Area Boundary
USFW	United States Fish and Wildlife Service

## REFERENCES

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# Mineral Resources

## Chapter 3.12

### SUMMARY OF FINDINGS

The proposed Project will result in *No Impacts* related to Mineral Resources, as the proposed Project site is not located near a known mineral resource area. No mitigation measures will be required. A detailed review of potential impacts is provided in the following analysis.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts to Mineral Resources. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in 15126.2(a), “[a]n EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.”<sup>1</sup>

The “Environmental Setting” provides a description of the Mineral Resources in the County. The “Regulatory Setting” provides a description of applicable Federal, State and Local

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<sup>1</sup> CEQA Guidelines, Section 15126.2 (a).



regulatory policies that were developed in part from information contained in the Tulare County General Plan 2030 Update, Tulare County General Plan 2030 Update Background Report, and/or Tulare County General Plan 2030 Update Recirculated Draft EIR (RDEIR) incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the proposed Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

### Thresholds of Significance

The Tulare County General Plan 2030 Update identifies known Mineral Resource areas.<sup>2</sup> The threshold of significance for this section will include the following:

- Impact a known Mineral Resource
- Site located in a Mineral Resource Zone area (as noted in the General Plan)

## **ENVIRONMENTAL SETTING**

“There is estimated to be a total of 932 million tons of aggregate resources in Tulare County. This figure includes 219 million tons of reserves available for mining and 200 million tons that are located in the hard rock quarries southeast of Porterville. Of that total, 19 million tons are located in Northern Tulare County, which is expected to be depleted by the year 2010 unless new resources are permitted for mining. Lemon Cove has been the most highly extracted area for PCC quality aggregate supplies.”<sup>3</sup>

“Economically, the most important minerals that are extracted in Tulare County are sand, gravel, crushed rock and natural gas. Other minerals that could be mined commercially include tungsten, which has been mined to some extent, and relatively small amounts of chromite, copper, gold, lead, manganese, silver, zinc, barite, feldspar, limestone, and silica. Minerals that are present but do not exist in the quantities desired for commercial mining include antimony, asbestos, graphite, iron, molybdenum, nickel, radioactive minerals, phosphate, construction rock, and sulfur... The majority of these activities appear to occur in the Sierra Foothill Area.”<sup>4</sup>

**Figure 3.12-1** is taken from the Tulare County General Plan 2030 Update and depicts the identified Mineral Resources in Tulare County.

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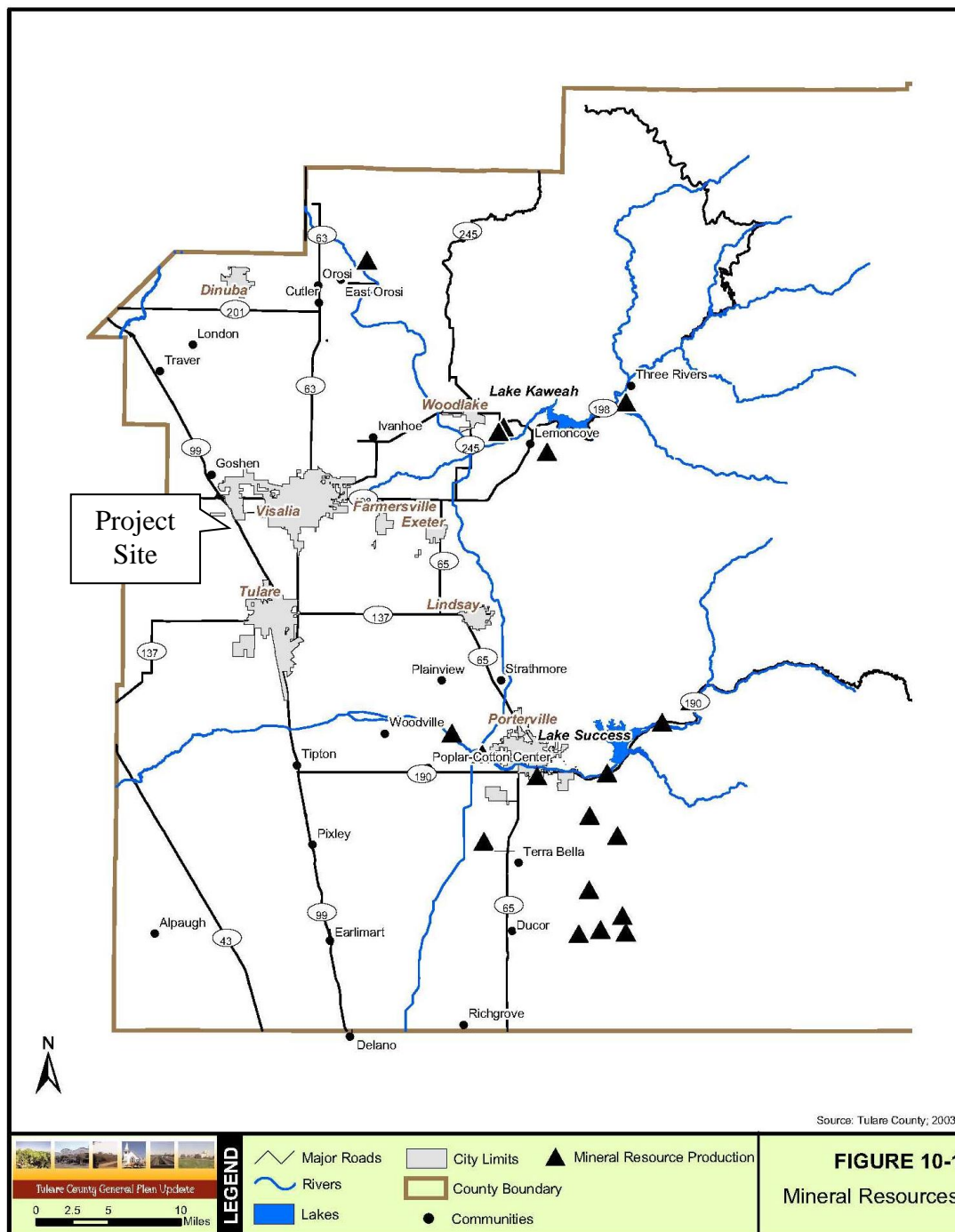
<sup>2</sup> Tulare County General Plan 2030 Update Background Report. Figure 10-1. Page 10-19. Accessed April 2019 at: <http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/BackgroundReport.pdf>.

<sup>3</sup> Ibid. 10-18.

<sup>4</sup> Op. Cit. 10-17.



**Figure 3.12-1  
Tulare County Mineral Resource Zones<sup>5</sup>**



<sup>5</sup> Tulare County General Plan 2030 Update Background Report. Figure 10-1. Page 10-19.



“The following MRZ categories are used by the State Geologist in classifying the State’s lands. The geologic and economic data and the arguments upon which each unit MRZ assignment is based are presented in the mineral land classification report transmitted by the State Geologist to the SMGB...

- A. *MRZ-1*—Areas where adequate geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence. This zone is applied where well developed lines of reasoning, based on economic-geologic principles and adequate data, indicate that the likelihood for occurrence of significant mineral deposits is nil or slight.
- B. *MRZ-2a*—Areas underlain by mineral deposits where geologic data show that significant measured or indicated resources are present. As shown on the diagram of the California Mineral Land Classification System, MRZ-2 is divided on the basis of both degree of knowledge and economic factors. Areas classified MRZ-2a contain discovered mineral deposits that are either measured or indicated reserves as determined by such evidence as drilling records, sample analysis, surface exposure, and mine information. Land included in the MRZ-2a category is of prime importance because it contains known economic mineral deposits. A typical MRZ-2a area would include an operating mine, or an area where extensive sampling indicates the presence of a significant mineral deposit.
- C. *MRZ-2b*—Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified MRZ-2b contain discovered deposits that are either inferred reserves or deposits that are presently sub-economic as determined by limited sample analysis, exposure, and past mining history. Further exploration work and/or changes in technology or economics could result in upgrading areas classified MRZ-2b to MRZ-2a. A typical MRZ-2b area would include sites where there are good geologic reasons to believe that an extension of an operating mine exists or where there is an exposure of mineralization of economic importance.
- D. *MRZ-3a*—Areas containing known mineral deposits that may qualify as mineral resources. Further exploration work within these areas could result in the reclassification of specific localities into the MRZ-2a or MRZ-2b categories. MRZ-3a areas are considered to have a moderate potential for the discovery of economic mineral deposits. As shown on the diagram of the California Mineral Land Classification System, MRZ-3 is divided on the basis of knowledge of economic characteristics of the resources. An example of a MRZ-3a area would be where there is direct evidence of a surface exposure of a geologic unit, such as a limestone body, known to be or to contain a mineral resource elsewhere but has not been sampled or tested at the current location.
- E. *MRZ-3b*—Areas containing inferred mineral deposits that may qualify as mineral resources. Land classified MRZ- 3b represents areas in geologic settings which appear to be favorable environments for the occurrence of specific mineral deposits. Further exploration work could result in the reclassification of all or part



of these areas into the MRZ-3a category or specific localities into the MRZ-2a or MRZ-2b categories. MRZ-3b is applied to land where geologic evidence leads to the conclusion that it is plausible that economic mineral deposits are present. An example of a MRZ-3b area would be where there is indirect evidence such as a geophysical or geochemical anomaly along a permissible structure which indicates the possible presence of a mineral deposit or that an ore-forming process was operative.

- F. *MRZ-4*—Areas where geologic information does not rule out either the presence or absence of mineral resources. The distinction between the MRZ-1 and MRZ-4 categories is important for land-use considerations. It must be emphasized that MRZ-4 classification does not imply that there is little likelihood for the presence of mineral resources, but rather there is a lack of knowledge regarding mineral occurrence. Further exploration work could well result in the reclassification of land in MRZ-4 areas to MRZ-3 or MRZ-2 categories.”<sup>6</sup>

## REGULATORY SETTING

### *Federal Agencies & Regulations*

None that apply to the proposed Project.

### *State Agencies & Regulations*

#### Surface Mining and Reclamation Act of 1975 (SMARA)

“The Surface Mining and Reclamation Act (SMARA), Chapter 9, Division 2 of the Public Resources Code, requires the State Mining and Geology Board to adopt State policy for the reclamation of mined lands and the conservation of mineral resources. These policies are prepared in accordance with the Administrative Procedures Act, (Government Code) and are found in California Code of Regulations, Title 14, Division 2, Chapter 8, Subchapter 1.

The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, Sections 2710-2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. SMARA also encourages the production, conservation, and protection of the state’s mineral resources. The State Mining and Geology Board is also granted authority and obligations under the following statutes:

Public Resources Code Section 2207 provides annual reporting requirements for all mines in the state.

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<sup>6</sup> California Department of Conservation, Division of Mines and Geology, “Guidelines for Classification and Designation of Mineral Lands”, Pages 4 thru 6. Accessed at: <http://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf>. Accessed April 2019.



Public Resources Code Section 2208: Site Inspections Conducted by the Department of Conservation.

Public Resources Code Section 10295.5 (a)-(e) and 20676 (a)-(c): Purchase and Use of Mined Materials by State and Local Agencies.

Water Code Section 13397 et seq.: Liability Limitations for Remediation/Reclamation of Abandoned Mines.”<sup>7</sup>

#### State Mining & Geology Board (SMGB)

“

The mission of SMGB is to provide professional expertise and guidance, and to represent the state’s interest in the development, utilization, and conservation of mineral resources, the reclamation of mined lands, and the development and dissemination of geologic and seismic hazard information to protect the health and welfare of the people of California.

The SMGB is composed of nine members appointed by the Governor, and confirmed by the Senate, for four-year terms. The SMGB serves as a regulatory, policy, and appeals body representing the State’s interests in geology, geologic and seismologic hazards, conservation of mineral resources and reclamation of lands following surface mining activities.

The SMGB operates within DOC, and is granted certain autonomous responsibilities and obligations under several statutes including the Alquist-Priolo Earthquake Fault Zoning Act, the Seismic Hazards Mapping Act, and the Surface Mining and Reclamation Act. The SMGB’s general authority is granted under Public Resources Code (PRC) Sections 660-678. Specifically, PRC Section 662(b) requires all SMGB members to “represent the general public interest.”<sup>8</sup>

#### The Office of Mine Reclamation (OMR)

“In 1991, the Division of Mine Reclamation (DMR) was created to provide a measure of oversight for local governments as they administer the Surface Mining and Reclamation Act (SMARA) within their respective jurisdictions. While the primary focus is on existing mining operations and the return of those mined lands to a usable and safe condition, issues relating to abandoned legacy mines are addressed through the Abandoned Mine Lands Unit”<sup>9</sup>

### ***Local Policy & Regulations***

#### Tulare County General Plan Policies

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<sup>7</sup> California Surface Mining And Reclamation Act Description, <http://www.conservation.ca.gov/smgb/Regulations/Pages/regulations.aspx>. Accessed April 2019.

<sup>8</sup> California State Mining & Geology Board. Accessed April 2019at: <https://www.conservation.ca.gov/smgb/Pages/About-The-Board.aspx>.

<sup>9</sup> California Office of Mine Regulation. Accessed March 2019 at: <https://www.conservation.ca.gov/dmr>.



The General Plan has a number of policies that apply to projects within Tulare County. General Plan policies that relate to the proposed Project are listed below.

**ERM-2.1 Conserve Mineral Deposits** - The County will encourage the conservation of identified and/or potential mineral deposits, recognizing the need for identifying, permitting, and maintaining a 50 year supply of locally available PCC grade aggregate.

**ERM-2.3 Future Resource Development** - The County will provide for the conservation of identified and/or potential mineral deposits within Tulare County as areas for future resource development. Recognize that mineral deposits are significantly limited within Tulare County and that they play an important role in support of the economy of the County.

**ERM-4.6 Renewable Energy** - The County shall support efforts, when appropriately sited, for the development and use of alternative energy resources, including renewable energy such as wind, solar, bio-fuels and co-generation. (For this Project, recycling concrete results in energy savings by not having to produce cement or asphalt from virgin materials).

## IMPACT EVALUATION

### Would the project:

#### a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Project Impact Analysis: *No Impact*

The proposed Project area is not located in a known mineral resource zone (MRZ)<sup>10</sup>. The nearest MRZ (RMC Pacific Materials Lemon Cove Plant) is more than 20 miles northeast of the proposed Project site.<sup>11</sup> Due to the distance separation between the identified MRZ and proposed Project area, there will be no loss of availability of a known mineral resource due to Project implementation. There will be *No Impact* related to this resource.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County General Plan 2030 Update, Tulare County General Plan 2030 Update Background Report, and the Tulare County General Plan 2030 RDEIR.

The proposed Project does not include mining operations and is not located within a known mineral resource zone. *No Cumulative Impacts* related to this checklist item will occur.

Mitigation: *None Required.*

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<sup>10</sup> Tulare County General Plan 2030 Update Background Report. Page 10-19.

<sup>11</sup> Ibid. Figure 10-1.



Conclusion:

***No Impact***

As noted above, ***No Project-specific*** or ***Cumulative Impacts*** related to this resource will occur.

**b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

Project Impact Analysis:

***No Impact***

As noted in the Response to 3.12 a), the proposed Project does not include a mining operation and the proposed Project site is not located in or near a known mineral resource zone. There will be no significant loss of local important mineral resource recovery site. According to U.S. Geological Survey, the nearest active mine and mineral production plant to the proposed Project is Lemon Cove Plant (operated by RMC Pacific Materials) located approximately 20 miles northeast of the proposed Project site within Tulare County<sup>12</sup>. The mine facility is located east of Road 228 and south of State Highway 216, near the Sierra Mountains foothills. The RMC Pacific Materials mine site is identified by U.S. Geological Survey Record ID, 133. The proposed Project will result in ***No Impact*** related to this resource.

Cumulative Impact Analysis:

***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County General Plan 2030 Update, Tulare County General Plan 2030 Update Background Report, and the Tulare County General Plan 2030 Update RDEIR.

As noted in the Response to Item 3.12 a), the proposed Project does not include a mining operation and is not located within a mineral resource zone. As such, ***No Cumulative Impact*** related to this resource will occur.

Mitigation:

***None Required.***

Conclusion:

***No Impact***

As noted above, no Project-specific or cumulative impacts related to this resource will occur.

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<sup>12</sup> USGS Mineral Resources On-Line Spatial Data, Active mines and mineral plants in the US. <http://mrdata.usgs.gov/mineral-resources/active-mines.html>. Accessed April 2019.



## ACRONYMS

MRZ	Mineral Resource Zone
OMR	Office of Mine Reclamation
SMGB	State Mining & Geology Board
SMARA	Surface Mining and Reclamation Act

## REFERENCES

California Department of Conservation, Division of Mines and Geology, “Guidelines for Classification and Designation of Mineral Lands”. Accessed April 2019 at:  
<http://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf>.

California Office of Mine Regulation. Accessed April 2019 at:  
<http://www.conservation.ca.gov/OMR/Pages/Index.aspx>.

California State Mining & Geology Board. Accessed April 2019 at:  
<http://www.conservation.ca.gov/smgb/Pages/Index.aspx>.

California Surface Mining And Reclamation Act Description. Accessed April 2019 at:  
<http://www.conservation.ca.gov/smgb/Regulations/Pages/regulations.aspx>.

CEQA Guidelines, Section 15126.2 (a)

Tulare County General Plan 2030 Update, August 2012. Accessed April 2019 at:  
<http://generalplan.co.tulare.ca.us/documents.html>.

Tulare County General Plan 2030 Update, Background Report, February 2010. Accessed March 2019 at: <http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/BackgroundReport.pdf>.

Tulare County General Plan 2030 Update, Recirculated Draft Environmental Impact Report (RDEIR) February 2010. Accessed April 2019 at:  
<http://generalplan.co.tulare.ca.us/documents/generalplan2010/RecirculatedDraftEIR.pdf>.

USGS Mineral Resources On-Line Spatial Data, Active mines and mineral plants in the US. Accessed April 2019at: <http://mrdata.usgs.gov/mineral-resources/active-mines.html>.



# Noise

## Chapter 3.13

### SUMMARY OF FINDINGS

The proposed Project will result in a *Less Than Significant Impact With Mitigation* related to Noise. A detailed review of potential impacts is provided in the following analysis.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts related to Noise. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in Section 15126.2 (a), “[a]n EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.”<sup>1</sup>

The “Environmental Setting” provides a description of the Noise Setting in Tulare County. The “Regulatory Setting” provides a description of applicable Federal, State, and Local regulatory policies that were developed in part from information contained in the Tulare County 2030 General

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<sup>1</sup> CEQA Guidelines, Section 15126.2 (a).



Plan, Tulare County General Plan Background Report, and/or Tulare County 2030 General Plan EIR incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the proposed Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

#### Thresholds of Significance

- Exceed Tulare County Standards for Noise Levels
- Expose people of excessive ground-borne vibration
- Expose people to excessive airport/airstrip noise

### **ENVIRONMENTAL SETTING**

#### Existing Noise Environment

The noise environment in the proposed Project area is defined primarily by vehicular traffic on area roadways, including SR 99 (which is one mile west of the Project site), Avenue 280 (Caldwell Avenue) and to a lesser extent Road 68. To a lesser extent, nearby non-transportation noise sources, including existing agricultural activities and equipment and occasional aircraft overflights also contribute to ambient noise levels in the Project area.

“Noise. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz). In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time. Typically, Leq is summed over a one-hour period.

Sound pressure is measured on a logarithmic scale with the 0 dB level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dB and a sound that is 10 dB less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dB greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40 to 50 dBA, while noise levels along arterial streets are generally in the 50 to 60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than that can interrupt conversations.



Noise levels typically attenuate at a rate of 6 dBA per doubling of distance from point sources such as industrial machinery. Noise from lightly traveled roads typically attenuates at a rate of about 4.11 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance.

The actual time period in which noise occurs is also important since noise that occurs at night tends to be more disturbing than that which occurs during the daytime. To evaluate community noise on a 24-hour basis, the day-night average sound level was developed (Ldn). Ldn is the time average of all A-weighted levels for a 24-hour period with a 10 dB upward adjustment added to those noise levels occurring between 10:00 P.M. and 7:00 A.M. to account for the general increased sensitivity of people to nighttime noise levels. The Community Noise Equivalent Level (CNEL) is identical to the Ldn with one exception. The CNEL adds 5 dB to evening noise levels (7:00 PM to 10:00 PM). Thus, both the Ldn and CNEL noise measures represent a 24-hour average of A-weighted noise levels with Ldn providing a nighttime adjustment and CNEL providing both an evening and nighttime adjustment.

Vibration. Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings and is usually measured in inches per second. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration.

High levels of vibration may cause physical personal injury or damage to buildings. However, groundborne vibration levels rarely affect human health. Instead, most people consider groundborne vibration to be an annoyance that can affect concentration or disturb sleep. In addition, high levels of groundborne vibration can damage fragile buildings or interfere with equipment that is highly sensitive to groundborne vibration (e.g., electron microscopes).

In contrast to noise, groundborne vibration is not a phenomenon that most people experience every day. The background vibration velocity level in residential areas is usually 50 RMS or lower which is well below the threshold of perception for humans (human perception is around 65 RMS). Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel- wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.



**b. Noise Sources.** Ambient noise levels in Tulare County vary widely depending upon proximity to noise generators...”<sup>2</sup>

As noted in the Tulare County Association of Governments 2014 Regional Transportation Plan/Sustainable Communities Strategy (2014 RTP/SCS) Draft EIR, “Tulare County contains a number of different industrial operations that produce noise, including food processing plants as well as sand and gravel extraction and processing facilities. Noise measurements were conducted for the General Plan 2030 Update at a sand and gravel extraction and processing facility operated by the Kaweah River Rock Company southeast of Woodlake. Excavation equipment that can generate noise at this facility consists of backhoes, graders, loaders, a drag line and off-road haul trucks. At any one time, it is common to have the drag line, backhoe or one of the loaders working in conjunction with the off-road haul trucks. Noise levels at 700 feet from such an excavation operation would be expected to range approximately from 47.5 to 66.5 dBA. The processing area of the operation noise levels of approximately 77 dBA at a distance of 200 feet from the source (Tulare County, 2007).”<sup>3</sup>

The Health and Safety section of Tulare County’s 2030 General Plan serves as the primary policy statement for the County for implementing policies to maintain and improve the noise environment in Tulare County. **Table 3.13-1** shows Tulare County’s Land Use Compatibility for Community Noise Environments.

“Noise level data collected during continuous monitoring included the hourly Leq and Lmax and the statistical distribution of noise levels over each hour of the sample period. The community noise survey results indicate that typical noise levels in noise-sensitive areas of the unincorporated areas of Tulare County are in the range of 29-65 dB Ldn. As would be expected, the quietest areas are those that are removed from major transportation-related noise sources and industrial or stationary noise sources.”<sup>4</sup>

The Project site is located in a rural area approximately two miles west of the urban edge of Visalia where the nearest concentration of sensitive receptors (single-family residences) are located on the north side of Avenue 280/Caldwell Avenue. As noted earlier, the Project site is surrounded by agricultural-related uses (i.e., orchards, dairies, row crops that support dairies, scattered rural residences, barns, etc.). Sensitive noise receptors in the area include:

- North:** None. (The nearest developed area is the City of Visalia Water Conservation Plant offices approximately 5,300 feet north of the Project site’s northernmost property line.)
- East:** Three rural single-family residences with the nearest approximately 660 feet east of the Project site’s easternmost property line.

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<sup>2</sup> Tulare County Association of Governments 2014 Regional Transportation Plan/Sustainable Communities Strategy Draft EIR. Page 4.11-2.  
<http://www.tularecog.org/rtp2014/>; then tab the Plans, Old Plans links then cursor down to the EIR.

<sup>3</sup> Ibid. 4.11-4.

<sup>4</sup> Tulare County General Plan 2030 Update Background Report. Page 8-77. Accessed April 2019 at:  
<http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/BackgroundReport.pdf>.



- South:** Rural residential home approximately 2,050 feet south of the Project site's southernmost property line.
- West:** Three scattered rural single-family residences, with the nearest approximately 3,525 feet west of the Project site's westernmost property line. Also, a private K-8 school is located approximately 5,700 feet west of the Project site's westernmost property line, north of Avenue 280.

## REGULATORY SETTING

### *Federal Agencies & Regulations*

#### Federal Highways Administration (FHWA) Highway Traffic Noise Prediction methodology

"In March 1998, the Federal Highway Administration (FHWA) released the Traffic Noise Model, Version 1.0 (FHWA TNM®). It was developed as a means for aiding compliance with policies and procedures under FHWA regulations. Since its release in March 1998, Version 1.0a was released in March 1999, Version 1.0b in August 1999, Version 1.1 in September 2000, Version 2.0 in June 2002, Version 2.1 in March 2003 and the current version, Version 2.5 in April 2004. The FHWA TNM is an entirely new, state-of-the-art computer program used for predicting noise impacts in the vicinity of highways. It uses advances in personal computer hardware and software to improve upon the accuracy and ease of modeling highway noise, including the design of effective, cost-efficient highway noise barriers."<sup>5</sup>

#### Federal Aviation Administration (FAA)

"Aircraft operated in the U.S. are subject to certain federal requirements regarding noise emissions levels. These requirements are set forth in Title 14 CFR, Part 36. Part 36 establishes maximum acceptable noise levels for specific aircraft types, taking into account the model year, aircraft weight, and number of engines."<sup>6</sup>

#### Federal Railway Administration (FRA) and the Federal Transit Administration (FTA)

"The Federal Railway Administration (FRA) and the Federal Transit Administration (FTA) have published guidance relative to vibration impacts. According to the FRA, fragile buildings can be exposed to groundborne vibration levels of 0.5 PPV without experiencing structural damage. The FTA has identified the human annoyance response to vibration levels as 80 VdB."<sup>7</sup>

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<sup>5</sup> U.S. Department of Transportation. Federal Highway Administration website, Traffic Noise Model, [http://www.fhwa.dot.gov/environment/noise/traffic\\_noise\\_model/](http://www.fhwa.dot.gov/environment/noise/traffic_noise_model/). Accessed September 2019.

<sup>6</sup> Tulare County Association of Governments 2018 Regional Transportation Plan/Sustainable Communities Draft EIR. Page 4.8-17.

<sup>7</sup> Ibid.



### Visalia Municipal Airport

Airports located within approximately two miles of the Project site include the Visalia Municipal Airport, which is located approximately one mile northeast of the Project site. No private airstrips are located within two miles of the Project site. However, the Project site does not lie within any aircraft noise contours as established in the Tulare County Comprehensive Airport Land Use Plan (2012).

### ***State Agencies & Regulations***

#### California Noise Insulation Standards

“The California Noise Insulation Standards found in the California Code of Regulations, Title 24, set requirements for new multi-family residential units, hotels, and motels that may be subject to relatively high levels of transportation-related noise. For exterior noise, the noise insulation standard is DNL 45 dB in any habitable room and requires an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than DNL 60 dB.”<sup>8</sup>

### ***Local Policy & Regulations***

#### Tulare County General Plan Policies

The General Plan has a number of policies that apply to projects within Tulare County. General Plan policies that relate to the proposed Project are listed below and the land use compatibility for community noise environments within Tulare County are depicted in **Table 3.13-1**.

**HS-8.2 Noise Impacted Areas** - The County shall designate areas as noise-impacted if exposed to existing or projected noise levels that exceed 60 dB Ldn (or Community Noise Equivalent Level (CNEL)) at the exterior of buildings.

**HS-8.3 Noise Sensitive Land Uses** - The County shall not approve new noise sensitive uses unless effective mitigation measures are incorporated into the design of such projects to reduce noise levels to 60 dB Ldn (or CNEL) or less within outdoor activity areas and 45 dB Ldn (or CNEL) or less within interior living spaces.

**HS-8.4 Airport Noise Contours** - The County shall ensure new noise sensitive land uses are located outside the 60 CNEL contour of all public use airports.

**HS-8.6 Noise Level Criteria** - The County shall ensure noise level criteria applied to land uses other than residential or other noise-sensitive uses are consistent with the recommendations of the California Office of Noise Control (CONC).

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<sup>8</sup> Ibid. Page 4.8-21.



**HS-8.11 Peak Noise Generators** - The County shall limit noise generating activities, such as construction, to hours of normal business operation (7 a.m. to 7 p.m.). No peak noise generating activities shall be allowed to occur outside of normal business hours without County approval.

**HS-8.13 Noise Analysis** - The County shall require a detailed noise impact analysis in areas where current or future exterior noise levels from transportation or stationary sources have the potential to exceed the adopted noise policies of the Health and Safety Element, where there is development of new noise sensitive land uses or the development of potential noise generating land uses near existing sensitive land uses. The noise analysis shall be the responsibility of the project applicant and be prepared by a qualified acoustical engineer (i.e., a Registered Professional Engineer in the State of California, etc.). The analysis shall include recommendations and evidence to establish mitigation that will reduce noise exposure to acceptable levels (such as those referenced in Table 10-1 of the Health and Safety Element).

**HS-8.14 Sound Attenuation Features** - The County shall require sound attenuation features such as walls, berming, heavy landscaping, between commercial, industrial, and residential uses to reduce noise and vibration impacts.

**HS-8.16 State Noise Insulation** - The County shall enforce the State Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the Uniform Building Code.

**HS-8.18 Construction Noise** - The County shall seek to limit the potential noise impacts of construction activities by limiting construction activities to the hours of 7 am to 7pm, Monday through Saturday when construction activities are located near sensitive receptors. No construction shall occur on Sundays or national holidays without a permit from the County to minimize noise impacts associated with development near sensitive receptors.

**HS-8.19 Construction Noise Control** - The County shall ensure that construction contractors implement best practices guidelines (i.e. berms, screens, etc.) as appropriate and feasible to reduce construction-related noise-impacts on surrounding land uses.



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<b>Table 3.13-1 Tulare County Land Use Compatibility for Community Noise Environments<sup>9</sup></b>							
Land Use Category	Community Noise Exposure-Ldn or CNEL (dB)						
	50	55	60	65	70	75	80
Residential - Low Density Single Family, Duplex, Mobile Homes							
Residential – Multi-Family							
Transient Lodging – Motels, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concerts Halls, Amphitheaters							
Sports Arenas, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							
	Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.					
	Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.					
	Normally Unacceptable	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.					
	Clearly Unacceptable	New construction or development generally should not be undertaken.					

<sup>9</sup> Tulare County 2030 General Plan Update. Part 1 Goals and Policies Report. Table 10.1. Page 10-25.



## IMPACT EVALUATION

### Would the project result in:

- a) **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Project Impact Analysis:

*Less Than Significant Impact With Mitigation*

#### Construction (Set-up) Noise Impacts

Implementation of the proposed Project would result in short-term increases in ambient noise levels associated with onsite plant set-up/start-up activities (e.g., construction of asphalt and cement batch plants, storm water detention basin, office parking, etc.) as well as increased on-site and off-site vehicle traffic. As noted in Item c), projected increases in operational noise levels would not exceed applicable noise standards (see Item c) for additional discussion of Project-related noise impacts). This impact will be *Less Than Significant With Mitigation*.

Noise associated with construction-related (i.e., set-up) activities would be temporary and would vary depending on the nature of the activities being performed. Noise generated during demolition and construction is typically associated with the operation of off-road equipment. **Table 3.13-2** lists typical uncontrolled noise levels generated by individual pieces of representative off-road equipment likely to be used during on-site construction-related activities. As further indicated in **Table 3.13-2**, noise levels associated with individual construction equipment can reach levels of up to approximately 85 dBA Lmax. Noise from localized point sources, such as construction sites, typically decreases by approximately 6 dBA with each doubling of distance from source to receptor. Given this noise attenuation rate and typical construction equipment noise levels and usage rates, combined noise levels associated with construction activities can reach levels of up to approximately 84 dBA Leq at 50 feet. As shown in **Table 3.13-2**, without feasible noise controls (e.g., mufflers), noise levels can range from 79 to 91 dBA at a distance of 50 feet; and with feasible noise controls, noise levels can range from 75 to 80 dBA at a distance of 50 feet, with feasible noise controls.

The nearest noise-sensitive land uses are rural residential dwellings, the nearest of which is located approximately 660 feet east of the Project site, adjacent to and south of Avenue 280. Based on the noise levels noted above, the highest calculated short-term noise levels at this residential dwelling would be approximately 62 dBA Leq. During the daytime hours, construction-related related noise levels at this nearest residential dwelling would be largely masked by existing ambient noise levels in the area, which are largely influenced by vehicle traffic on area roadways. Exterior ambient noise levels decrease during the nighttime hours as vehicle traffic decreases. If construction-related activities were to be conducted during these more noise-sensitive nighttime hours such noise could be detectable and could result in increased annoyance and potential sleep disruption to building occupants (it is important to



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note that construction-related noise levels are highly variable and would last only as long as construction-related activities occur).

<b>Table 3.13-2 Typical Off-Road Equipment Noise Levels</b>			
<b>Type of Equipment</b>	<b>Typical Noise Level (dBA) at 50 feet from Source</b>		
	<b>L<sub>max</sub></b>	<b>L<sub>eq</sub></b>	<b>dBA With Feasible Noise Control*</b>
Backhoe	80	76	75
Compactor (Ground)	80	73	75
Concrete Mixer Truck	80	81	75
Concrete Mixer (Vibratory)	85	73	80
Concrete Pump Truck	82	75	87
Crane	85	77	80
Dozer	85	81	75
Drill Rig Truck	84	77	79
Excavator	85	81	80
Front End/Wheel Loader	80	76	75
Generator	82	79	77
Grade-all	e85	81	80
Grader	85	81	75
Paver	85	82	80
Pneumatic Tools	85	82	80
Pumps	77	74	72
Scraper	85	81	80
Tractor	85	81	75
Truck (Dump/Flat Bed)	84	80	75
<i>Source: United States Federal Highway Administration (FHWA). January 2006. Roadway Construction Noise Model, version 1.1.</i>			
<i>Note: *Feasible noise control includes the use of intake mufflers, exhaust mufflers, and engine shrouds operating in accordance with applicable regulations.</i>			

Although impacts are considered less than significant, the Project will be required to adhere to the County's noise policies to ensure that impacts remain less than significant, as follows:

**HS-8.11 Peak Noise Generators** - The County shall limit noise generating activities, such as construction, to hours of normal business operation (7 a.m. to 7 p.m.). No peak noise generating activities shall be allowed to occur outside of normal business hours without County approval.

**HS-8.18 Construction Noise** - The County shall seek to limit the potential noise impacts of construction activities by limiting construction activities to the hours of 7 am to 7pm, Monday through Saturday when construction activities are located near sensitive receptors. No construction shall occur on Sundays or national holidays without a permit from the County to minimize noise impacts associated with development near sensitive receptors.



**HS-8.19 Construction Noise Control** - The County shall ensure that construction contractors implement best practices guidelines (i.e. berms, screens, etc.) as appropriate and feasible to reduce construction-related noise-impacts on surrounding land uses.

#### Operational Noise Impacts

The proposed Project site is located approximately two miles east of the edge of an urban area (Visalia), one mile west of SR 99, and with agricultural-related uses directly adjacent to all sides of the Project site. The three nearest rural residences east of the Project site are part of an existing dairy operation. Operational noise from the Project will be generated from typical batch plant uses such as operation of the batch plant (including drum mixer, conveyor belts, material screens, and material handling activities). The intermittent operation of warning buzzers/bells/alarms, water pumps, and the loading/unloading of haul trucks, also contribute to on-site noise levels. However, the primary source of noise will likely be from Project-related vehicular (i.e., heavy-duty haul truck) trips.

“Noise generated by mobile sources typically attenuates (is reduced) at a rate between 3.0 and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3.0 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate between 6.0 and about 7.5 dBA per doubling of distance.”<sup>10</sup>

The nearest sensitive noise receptors in the area include:

- North:** None. (The nearest developed area is the City of Visalia Water Conservation Plant offices approximately 5,300 feet north of the Project site’s northernmost property line.)
- East:** Three rural type single-family homes with the nearest approximately 660 feet east of the Project site’s easternmost property line.
- South:** Rural residential home approximately 2,050 feet south of the Project site’s southernmost property line.
- West:** Three rural type single-family homes, with the nearest approximately 3,525 feet west of the Project site’s westernmost property line. Also, a private K-8 school is located approximately 5,700 feet west of the Project site’s westernmost property line, north of Avenue 280.

Noise receptors to the north and west likely experience some increase in ambient noise from the Project, but because both are over one mile away, the noise would remain below County

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<sup>10</sup> Environmental Impact Report for Tulare County South County Detention Facility, Appendix “G”, Noise Study Report (page 6), prepared by VRPA Technologies. May 2013.



noise thresholds. Traffic noise from SR 99 and WC Wood Industries' (composting, asphalt/concrete recycling, green waste recycling, etc.) operations would likely drown-out any potential noise from the Project site at the north receptor (City of Visalia Water Conservation Plant offices). The distance, existing dairy operations, field crops, orchards, and generally soft soils would reduce noise from the Project site on the west and south receptors. As estimated earlier, the east receptor, because of its distance from the Project site, would likely be impacted by approximately 62 dBA. Also, heavy-duty haul truck activity will be intermittent and would only occur on weekdays between 7 A.M. and 7 P.M. Lastly, an earthen berm (topped with landscaping such as shrubs and trees) would further reduce noise. Although the intent of the berm and landscaping are to screen the Project site for aesthetic purposes, they would serve a dual function of reducing line-of-sight noise exposure to sensitive receptors thereby further reducing dBA levels below the County's noise threshold.

Nonetheless, short-term noise-generating construction activities associated with on-site construction-related activities (e.g., set up) could have a potentially significant impact. However, implementation of **Mitigation Measures 13-1 and 13-2** would result in a ***Less Than Significant Impact With Mitigation*** to this Checklist Item.

Cumulative Impact Analysis: ***Less Than Significant Impact With Mitigation***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, and the Tulare County 2030 General Plan Draft Environmental Impact Report.

Temporary, short-term, and intermittent construction-related (set-up) noise will not have a cumulative impact unless significant temporary noise levels from multiple sources will occur at the same time. However, there are no projects that will significantly increase temporary noise levels in the vicinity of the Project site.

As discussed in Item a), implementation of the proposed Project would not contribute to a significant increase in projected future cumulative traffic noise levels. In addition, no major off-site stationary sources of noise (other than typical dairying- and farming operations-related noise) were identified in the Project area that would adversely affect nearby land uses. As a result, the proposed Project would not result in a cumulative contribution to noise levels that would adversely affect nearby land uses. Therefore, the Project would result in a ***Less Than Significant Impact With Mitigation***.

Mitigation: ***See Mitigation Measures 13-1 and 13-2.***

- 13-1** Construction-related activities (e.g., set-up), excluding emergency work and activities that would result in a safety concern to the public or construction workers, shall be limited to between the hours of 7:00 A.M. and 7:00 P.M. Construction-related activities (e.g., set-up) activities shall be prohibited on Sundays and federal holidays.



- 13-2** Construction-related activities (e.g., set-up) equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and shrouds, in accordance with manufacturers' recommendations.

Conclusion:

***Less Than Significant Impact With Mitigation.***

The use of mufflers and engine shrouds would reduce construction and demolition equipment noise levels by approximately 10 dB, or more. In addition, hourly limitations for construction and demolition activities would significantly reduce the potential for annoyance and sleep disruption for occupants of nearby land uses. With implementation of the proposed mitigation measures, this impact would be less than significant.

As such, ***Less Than Significant Project-specific or Cumulative Impacts With Mitigation*** related to this resource will occur.

**b) Generation of excessive groundborne vibration or groundborne noise levels?**

Project Impact Analysis:

***Less Than Significant Impact***

Increases in groundborne vibration levels attributable to the proposed Project would be primarily associated with on-site operational activities. Such activities would likely require the use of various off-road equipment, such as tractors, concrete mixers, graders, and haul trucks. The use of major groundborne vibration-generating construction equipment, such as pile drivers, would not be required for this Project. The proposed Project will result in the on-going use of equipment that produces groundborne vibration; however, it is noted that vibration from vehicles is dependent upon vehicle speed.

This Project is similar in nature, but on a smaller scale than the CMI Asphalt Batch Plant (formerly Papich) located approximately 2.5\_ north of the proposed Project's location. As such, the information contained in section 3.12 Noise of the CMI EIR is used by analogy. By comparison, CMI's project was approved for 880 trucks/day vs. the proposed 138 trucks/day by this Project; CMI was approved for 500,000 tons/yr. of asphalt vs. 125,000 tons/yr. of asphalt by this Project; and CMI was approved for 275,000 tons/yr. of virgin aggregate vs. 160,000 tons/yr. of virgin aggregate by this Project; etc. Given the similar nature of these projects, proposed Project Groundborne vibration levels associated with representative off-road equipment are summarized in **Table 3.13-3**. Based on the vibration levels presented in **Table 3.13-3**, ground vibration generated by off-road equipment would not be anticipated to exceed approximately 0.08 inches per second ppv at 25 feet. Predicted vibration levels at the nearest structures would not exceed the minimum recommended criteria for structural damage or human annoyance (0.2 in/sec ppv).<sup>11</sup>

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<sup>11</sup> "Draft Environmental Impact Report, Papich Construction Asphalt Batch Plant Project". Adopted and certified by the Tulare County Board of Supervisors on July 21, 2015.



Draft Environmental Impact Report  
Dunn Asphalt and Concrete Batch Plant  
SCH #: 2019011039

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<b>Table 3.13-3</b> <b>Vibration Levels for Varying Construction Equipment</b>	
Type of Equipment	Peak Particle Velocity @ 25 Feet (inches/second)
Large Bulldozer	0.089
Loaded Trucks	0.076
Small Bulldozer	0.003
Jackhammer	0.035
Vibratory Hammer	0.070
Vibratory Compactor/Roller	0.210
<i>Source: Draft Environmental Impact Report, Papich Construction Asphalt Batch Plant Project. 2015. Page 3.12-5.</i>	

Due to the large-sized, slow-moving, heavy-duty haul (HD) trucks; limited maneuvering space; dedicated HD truck parking space; dedicated raw material off-loading areas; dedicated finished material loading areas; intermittent arrivals/departures of HD trucks; and slow moving on-site heavy duty off road equipment (such as wheel loaders/front-end loaders), vehicle speed is not likely to exceed 25-30 miles per hour. Also, any vibrations associated with daily operations would be limited to operational hours of 7 A.M. to 7 P.M. Therefore, operational vibrations would result in a less than significant impact.

There are no federal or state standards that address construction noise or vibration. Additionally, Tulare County does not have regulations that define acceptable levels of vibration. One reference suggesting vibration standards is the Federal Transit Administration (FTA) publication concerning noise and vibration impact assessment from transit activities. Although the FTA guidelines are to be applied to transit activities and construction, they may be reasonably applied to the assessment of the potential for annoyance or structural damage resulting from other activities. To prevent vibration annoyance in residences, a level of 80 VdB (vibration velocity level in dB) or less is suggested when there are fewer than 70 vibration events per day. A level of 100 VdB or less is suggested by the FTA guidelines to prevent damage to fragile buildings.

As noted earlier, groundborne vibration levels associated with representative off-road equipment are summarized in **Table 3.13-3**. While these construction-related activities would result in minor amounts of groundborne vibration (when compared to the 80-100VdB level as suggested by the FTA guidelines noted earlier), such groundborne noise or vibration would attenuate rapidly from the source and would not be generally perceptible outside of the construction areas. Therefore, based on the vibration levels presented in **Table 3.13-3**, ground vibration generated by off-road equipment would not be anticipated to exceed approximately 0.08 inches per second ppv at 25 feet. Estimated vibration levels at the nearest structures (which is approximately 660 feet east of the nearest Project activity area) would not exceed the minimum recommended criteria for structural damage or human annoyance (0.2 in/sec ppv). As such, the Project would result in a ***Less Than Significant Impact***.

Cumulative Impact Analysis: ***Less than Significant Impact***



The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, and the Tulare County 2030 General Plan Draft Environmental Impact Report.

Project-generated ground-borne vibration levels, whether construction (start-up) or operations related, would not result in a significant impact to nearby land uses. No existing sources of ground-borne vibration or proposed projects that would adversely affect nearby land uses were identified in the Project area. As a result, the proposed Project would not result in a cumulative contribution to ground-borne vibration levels that would adversely affect nearby land uses. Therefore, this Project would result in a ***Less Than Significant Impact***.

Mitigation Measure(s): ***None Required.***

Conclusion: ***Less Than Significant Impact***

- c) **For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

Project Impact Analysis: ***No Impact***

The Project is not located within an airport land use plan but is within two miles of an airport. The nearest public or public use airport to the project site is the Visalia Municipal Airport located approximately one mile northeast of the Project site. As noted earlier, the Project lies outside of the aircraft noise contours established in the Tulare County Comprehensive Airport Land Use Plan. As such, the Project would result in no exposure to people working at the Project site; the Project does not include any residential opportunities where persons would be exposed to airport-related noise. Therefore, there would be ***No Impact*** related to this resource.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, and the Tulare County 2030 General Plan Draft Environmental Impact Report, and the 2012 Tulare County Comprehensive Airport Land Use Plan.

The proposed Project would not subject people to excessive airport related noise. Therefore, ***No Impact*** to cumulative impacts related to this Checklist item will occur.

Mitigation Measure(s): ***None Required.***

Conclusion: ***No Impact.***

As noted earlier, ***No Project-specific or Cumulative Impacts*** to this Checklist Item will occur.



## DEFINITIONS

“Noise is often described as unwanted sound, and thus is a subjective reaction to characteristics of a physical phenomenon. Researchers have generally agreed that A-weighted sound pressure levels (sound levels) are well correlated with subjective reaction to noise. Variations in sound levels over time are represented by statistical descriptors, and by time-weighted composite noise metrics such as the Day/Night Average Level (Ldn).”<sup>12</sup> In addressing noise impacts, the following key terms are outlined and explained below:

**Ambient Noise** - “The total noise associated with a given environment and usually comprising sounds from many sources, both near and far.”

**Attenuation** - “Reduction in the level of sound resulting from absorption by the topography, the atmosphere, distance, barriers, and other factors.

**A-weighted decibel (dBA)** - A unit of measurement for noise based on a frequency weighting system that approximates the frequency response of the human ear.

**Community Noise Equivalent Level (CNEL)** - Used to characterize average sound levels over a 24-hour period, with weighting factors included for evening and nighttime sound levels. Leq values (equivalent sound levels measured over a 1-hour period - see below) for the evening period (7:00 p.m. to 10:00 p.m.) are increased by 5 dB, while Leq values for the nighttime period (10:00 p.m. to 7:00 a.m.) are increased by 10 dB. For a given set of sound measurements, the CNEL value will usually be about 1 dB higher than the Ldn value (see below). In practice, CNEL and Ldn are often used interchangeably.

**Decibel (dBA)** - A unit of measurement describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure (which is 20 micronewtons per square meter).

**Day-Night Average Sound Level (Ldn)** - Average sound exposure over a 24-hour period. Ldn values are calculated from hourly Leq values, with the Leq values for the nighttime period (10:00 p.m. to 7:00 a.m.) increased by 10 dB to reflect the greater disturbance potential from nighttime noises.”

**Equivalent Sound Level (Leq).** - The level of a steady-state sound that, in a stated time period and at a stated location, has the same sound energy as the time-varying sound (approximately equal to the average sound level). The equivalent sound level measured over a 1-hour period is called the hourly Leq or Leq (h).

**Lmax and Lmin** - The maximum and minimum sound levels, respectively, recorded during a measurement period. When a sound meter is set to the “slow” response setting, as is typical for

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<sup>12</sup> TCAG 2011 Regional Transportation Plan Draft Subsequent EIR. Page 150.



most community noise measurements, the Lmax and Lmin values are the maximum and minimum levels recorded typically for 1-second periods.

**Percentile-Exceeded Sound Level (Lx)** - The sound level exceeded during a given percentage of a measurement period. Examples include L10, L50, and L90. L10 is the A-weighted sound level that is exceeded 10% of the measurement period, L50 is the level exceeded 50% of the period, and so on. L50 is the median sound level measured during the measurement period. L90, the sound level exceeded 90% of the time, excludes high localized sound levels produced by nearby sources such as single car passages or bird chirps. L90 is often used to represent the background sound level. L50 is also used to provide a less conservative assessment of the background sound level.

**Sensitive Receptors** - Sensitive receptors are defined to include residential areas, hospitals, convalescent homes and facilities, schools, and other similar land uses.”<sup>13</sup>

## REFERENCES

CEQA Guidelines, Section 15126.2 (a)

Environmental Impact Report for Tulare County South County Detention Facility, Appendix “G”, Noise Study Report, prepared by VRPA Technologies. May 2013.

Tulare County Association of Governments 2014 Regional Transportation Plan/Sustainable Communities Strategy Draft EIR. Accessed May 2019 at: <http://www.tularecog.org/rtp2014/> then tab the Plans, Old Plans links then cursor down to the EIR documents.

Tulare County Comprehensive Airport Land Use Plan 2012. Accessed May 2019 at: <https://tularecounty.ca.gov/rma/index.cfm/rma-documents/planning-documents/tulare-county-comprehensive-airport-land-use-plan/>

Tulare County General Plan 2030 Update, August 2012. Accessed May 2019 at: <http://generalplan.co.tulare.ca.us/documents.html>.

Tulare County General Plan 2030 Update, Background Report, February 2010. Accessed May 2019 at: <http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/BackgroundReport.pdf>.

U.S. Department of Transportation. Federal Highway Administration website, Traffic Noise Model, [http://www.fhwa.dot.gov/environment/noise/traffic\\_noise\\_model/](http://www.fhwa.dot.gov/environment/noise/traffic_noise_model/). Accessed May 2019.

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<sup>13</sup> Tulare County General Plan 2030 Update Background Report. Pages 8-46 to 8-47.



# Population and Housing

## Chapter 3.14

### SUMMARY OF FINDINGS

The proposed Project will result in *No Impact* related to Population and Housing and therefore, no mitigation measures are required. A detailed review of potential impacts is provided in the following analysis.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts to Population and Housing. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in 15126.2 (a), “[a]n EIR shall identify and focus on the significant environmental effects of the proposed Project. In assessing the impact of a proposed Project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the Project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the Project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision will have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.”<sup>1</sup>

The “Environmental Setting” provides a description of the Population and Housing in the County. The “Regulatory Setting” provides a description of applicable Federal, State and Local

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<sup>1</sup> CEQA Guidelines, Section 15126.2 (a).



regulatory policies that were developed in part from information contained in the Tulare County General Plan 2030 Update, Tulare County General Plan Background Report and/or Tulare County General Plan 2030 Update Revised DEIR incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the proposed Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

#### Thresholds of Significance

- Induce Substantial Population Growth
- Displace Housing or People

### **ENVIRONMENTAL SETTING**

#### Tulare County

“Tulare County, California is one of the largest counties in the great and fertile San Joaquin Valley. Geographically it is situated about midway between San Francisco and Los Angeles, the two principal cities of the Pacific Slope... Within the confines of Tulare County are now 4,863 square miles, or 3,158,400 acres.”<sup>2</sup>

#### *Tulare County Regional Housing Needs Assessment Plan 2014-2023 (TCAG, June 2014)*

State housing element law assigns the responsibility for preparing the Regional Housing Needs Assessment (RHNA) for the Tulare County region to the Tulare County Association of Governments (TCAG). The RHNA is updated prior to each housing element cycle. The current RHNA, adopted on June 30, 2014, covers a 9.75-year projection period (January 1, 2014 to September 30, 2023). The growth projections applied in the Housing Element Update are based upon growth projections developed by the State of California. The RHNA housing allocations for Tulare County were incorporated into **Table 3.14-1**. “A Regional Housing Needs Assessment Plan” provides a general measure of each local jurisdiction’s responsibility in the provision of housing to meet those needs. The Tulare County Association of Governments (TCAG) was responsible for allocating the State’s projections to each local jurisdiction within Tulare County including the County unincorporated area, which is reflected in this Housing Element.

The Sustainable Communities and Climate Protection Act of 2008 (SB 375) was passed to support the State’s climate action goals...to reduce greenhouse gas (GHG) emissions through coordinated transportation and land use planning. The bill mandates each of California’s Metropolitan Planning Organizations (MPO) prepare a *sustainable communities strategy* as part of its regional transportation plan (RTP). The SCS contains land use, housing and transportation strategies that, if implemented, would allow the region to meet its GHG

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<sup>2</sup> Tulare County Association of Governments. Tulare County Regional Blueprint. May 2009. Pages 4 and 5.  
<http://valleyblueprint.org/files/Tulare050109.pdf>. Accessed May 2019.



reduction targets. In the past, the RHNA was undertaken independently from the RTP. SB 375 requires that the RHNA and RTP/SCS processes be undertaken together to better integrate housing, land use, and transportation planning. In addition to the RHNA requirements, SB 375 requires that TCAG address the region's housing needs in the SCS of the RTP, to include sections on state housing goals (Government Code Section 65080(b)(2)(B)(vi)); identify areas within the region sufficient to house all the population of the region (including all economic segments of the population ) over the course of the planning period for the RTP (out to 2040 for the 2040 RTP/SCS); and identify areas within the region sufficient to meet the regional housing needs

The RHNA housing results are summarized in **Table 3.14-1**. The Tulare County RHNA Plan recommends that the County provide land use and zoning for approximately 7,081 units per year in the unincorporated portions of the County. The County administratively agreed to a housing share of 7,081 units (726 units per year over the 9.75-year RHNA planning period). The RTP allocates 30% of population to the County. The RHNA bases the housing needs assessment on this percentage.

<b>Table 3.14-1 Regional Housing Needs Assessment Plan</b>					
<b>January 1, 2014 – September 30, 2023</b>					
<b>Income Category</b>					
Jurisdiction	Very Low	Low	Moderate	Above Moderate	Total
Dinuba	211	163	121	470	965
Exeter	143	125	85	272	625
Farmersville	74	65	68	259	466
Lindsay	80	80	82	348	590
Porterville	623	576	566	1,431	3,196
Tulare	920	609	613	1,452	3,594
Visalia	2616	1,931	1,802	3,672	10,021
Woodlake	71	41	69	191	372
Unincorporated Area	1,477	1,065	1,169	3,370	7,081
Total Tulare County	6,215	4,655	4,575	11,465	26,910
<i>Source: Table 1: "2014-2023 Final RHNA Allocations by Income Category," Final Regional Housing Needs Plan for Tulare County 2014-2023. Page 19 (TCAG 2014).</i>					

According to the Tulare County Regional Housing Needs Plan, the number of household in Tulare County's was 110,356 in 2000. In 2007 the number of households was 125,836. The 2014 household projection was 159,514. **Table 3.14-2** summarizes Tulare County's population between 1980 and 2010 according to the 1980-2010 U.S. Census.



Table 3.14-2 Tulare County Population <sup>3,4,5</sup>						
	1980	1990	2000	2008	2010	2015
Tulare County Population	245,738	311,921	368,021	435,254	442,182	459,863

“Housing costs continue to rise significantly. The 2010 Census reports the median rent has increased 10.72% from \$727 in 2000 to \$805 in 2010. The median monthly owner costs for housing units with a mortgage have seen a minor decrease going from \$1,518 to \$1,471 which is a -3.09% decrease. The monthly owner costs for those housing units without a mortgage increased by less than 1%, going from \$330 to \$361.”<sup>6</sup>

## REGULATORY SETTING

### *Federal Agencies & Regulations*

#### U.S. Department of Housing and Urban Development (HUD)

“HUD’s mission is to create strong, sustainable, inclusive communities and quality affordable homes for all. HUD is working to strengthen the housing market to bolster the economy and protect consumers; meet the need for quality affordable rental homes; utilize housing as a platform for improving quality of life; build inclusive and sustainable communities free from discrimination; and transform the way HUD does business.”<sup>7</sup>

### *State Agencies & Regulations*

#### California Department of Housing and Community Development (HCD)

“Our Mission - Promote safe, affordable homes and strong vibrant communities throughout California.

Our Vision - Every California resident can live, work, and play in healthy communities of opportunity.

#### What We Do

- **Grants and Funding** — By administering programs that provide grants and loans (from both state and federal housing programs), HCD creates rental and homeownership opportunities for Californians from all walks of life, including veterans, seniors, young families starting out, people with disabilities, farmworkers, and individuals and families

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<sup>3</sup> 1980, 1990, 2000 U.S. Census, State of California, Department of Finance, E-1 Population Estimates. Accessed May 2019 at: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-1/>

<sup>4</sup> 2010 U.S. Census, United States, <http://www.census.gov/2010census/popmap/ipmtext.php?fl=06>. Accessed May 2019.

<sup>5</sup> 2015 U.S. Census, United States QuickFacts, Tulare County, California. <http://www.census.gov/quickfacts/table/PST045215/06107>. Accessed May 2019.

<sup>6</sup> Op Cit. Page 3-26.

<sup>7</sup> U.S. Department of Housing and Urban Development, Mission, <http://portal.hud.gov/hudportal/HUD?src=/about/mission>. Accessed May, 2019.



who are experiencing homelessness. Over the last three decades, HCD has provided more than \$3 billion of funding for the development of affordable housing and associated infrastructure, but HCD's role does not end once the awards are made. Through long-term monitoring, HCD ensures the developments continue to provide safe and affordable homes, and that the homes remain well-maintained and financially sound.

- **Mobilehome Registration** — Similar to the way California's Department of Motor Vehicles manages titling and registration for automobiles, HCD manages the titling and registration for mobilehomes. HCD also protects families and individuals who live in mobilehomes by inspecting mobilehome parks for health and safety violations in areas where the local government has not assumed enforcement. HCD further protects consumers by enforcing regulations for those who build and sell manufactured homes.
- **Building Standards** — HCD protects the health and safety of Californians by enforcing standards for housing construction, maintenance of farmworker housing and manufactured/factory-built homes. HCD also proposes amendments to California's residential building standards for new construction to the California Building Standards Commission and helps train local government inspectors to better understand the new requirements. HCD creates specialized standards for CALGreen, the nation's first mandated green-building code.
- **Planning and Community Development** — As a basic human need, housing is one of the most important parts of any community, and how we plan for housing has wide reaching impacts on the environment, education, health, and the economy. HCD plays a critical role in the housing-planning process, which was designed to ensure that communities plan housing that meet the needs of everyone in California's communities. HCD works with each of the 538 regional governments to determine their housing needs, and then reviews every city and county's housing plan (the housing element of the general plan) to determine whether or not the plan complies with state law.
- **Policy and Research** — HCD develops policies that support housing and community development, and conducts research and analysis of California's housing markets and needs. HCD produces California's Statewide Housing Plan (required by state law), California's "Consolidated Plan" (required for California to receive millions of federal dollars for housing and community development), and other special reports.”<sup>8</sup>

#### California Relocation Assistance Act

The State of California adopted the California Relocation Assistance Act (*California Government Code* §7260 et seq.) in 1970. This State law, which follows the federal Uniform Relocation Assistance and Real Property Acquisition Act, requires public agencies to provide procedural protections and benefits when they displace businesses, homeowners, and tenants in the process of implementing public programs and projects. This State law calls for fair, uniform, and equitable treatment of all affected persons through the provision of relocation benefits and assistance to minimize the hardship of displacement on the affected persons.

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<sup>8</sup> CA Department of Housing and Community Development. Accessed in May 2019 at: <http://www.hcd.ca.gov/about/mission.shtml>



## ***Local Policy & Regulations***

### Tulare County 2014 Regional Housing Needs Assessment Plan

“State Housing Element law assigns the responsibility for preparing the Regional Housing Needs Assessment (RHNA) for the Tulare County region to the Tulare County Association of Governments (TCAG). The RHNA is updated prior to each Housing Element cycle. The current RHNA, adopted on June 30, 2014, covers a 9.75-year projection period (January 1, 2014 to September 30, 2023). The growth projections applied in the Housing Element Update are based upon growth projections developed by the State of California. The RHNA housing allocations for Tulare County were incorporated into Table 1-A [of the RHNA]. “A Regional Housing Needs Assessment Plan” (Table 1-A [of the RHNA]) provides a general measure of each local jurisdiction’s responsibility in the provision of housing to meet those needs. TCAG was responsible for allocating the State’s projections to each local jurisdiction within Tulare County including the County unincorporated area, which is reflected in this Housing Element.”<sup>9</sup>

“Tulare County RHNA Plan recommends that the County provide land use and zoning for approximately 7,081 units per year in the unincorporated portions of the County. The County administratively agreed to a housing share of 7,081 units (726 units per year over the 9.75-year RHNA planning period). The RTP allocates 30% of population to the County, but it is important to indicate that the RHNA allocation to the County is higher than the historical and anticipated levels of building permit activities through the planning period to 2023.”<sup>10</sup> The RHNA bases the housing needs assessment on this percentage. Also as noted earlier, the RHNA housing results are summarized in **Table 3.14-1**.

### Tulare County Regional Blueprint 2009

The Tulare County Association of Governments (TCAG) has been an active participant in the development of the San Joaquin Valley Regional Blueprint, which will develop a cohesive regional framework that defines and offers alternative solutions to growth related issues for the Valley. The process involves the integration of transportation, housing, land use, economic development, and the environment to produce a preferred growth scenario to the year 2050.<sup>11</sup> There are goals and objectives contained in the Tulare County Regional Blueprint that directly relate to this Housing Element update as follows:

- “Promulgate and promote adoption of community design guidelines that will ensure strong neighborhoods, increase efficiency by promoting green building practices, integrate housing with jobs and schools, improve mobility and health by promoting walking and biking, improve air quality by reducing the trip generation, and increase infrastructure cost-effectiveness through efficient land use.

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<sup>9</sup> Tulare County Housing Element 2015 Update. Page 1-17.

<http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/110Part%20I%20Voluntary%20Elements%20Chapters%206,%2012%20and%2015/001CHP%206%20Tulare%20County%20Housing%20Element%20Update%202015/CHP%206%20TULARE%20COUNTY%20HOUSING%20ELEMENT%20UPDATE%202015.pdf>. Accessed May 2019.

<sup>10</sup> Ibid. 1-18.

<sup>11</sup> Op. Cit. 2-1.



- Increase the overall average density of new development.
- Ensure safe and healthy communities that provide a variety of housing types with increased opportunities for homeownership.
- Provide incentives for local jurisdictions to meet their housing needs.
- Provide an adequate supply of housing for our region's workforce and adequate sites to accommodate business expansion and retention to minimize interregional and long distance commuting.
- Conserve and rehabilitate the existing housing stock, while minimizing the displacement of lower income and minority residents as redevelopment and revitalization occurs.”<sup>12</sup>

#### Housing Authority of Tulare County (HATC)

The HATC describes itself in its “About Us” summary in their website as follows:

“Who is the Housing Authority? - The Housing Authority is a unique hybrid: a public sector agency with private sector business practices. Although we are a public agency created pursuant to federal and state laws, we operate much like a private company. Our major source of income is the rents from residents.

Our History - The Housing Authority of the County of Tulare was established in 1945 pursuant to the United States Housing Act of 1937 and state enabling legislation. Our first major project was to develop housing for returning World War II Veterans and their families. The first developments consisted of surplus portable housing that was obtained from military training bases throughout the state. By the mid-1950's the Housing Authority had assumed the management responsibilities of two farm labor housing centers which were built in the late 1930's by the federal government. In 1959, the Housing Authority began construction of 30 homes in Cutler that marked the beginning of an expansion that now provides housing for approximately 17,000 people in nearly 5,000 family, elderly and handicapped households. The Housing Authority has established a solid reputation for providing safe, affordable housing for low income people.

Our Mission - To provide affordable, well-maintained rental housing to qualified low and very low-income families. Priority shall be given to working families, seniors, and the disabled. Tenant self-sufficiency and responsibility shall be encouraged. Programs shall be self-supporting to the maximum extent feasible.”<sup>13</sup>

#### 2015 Tulare County Housing Element Policies

There are numerous Housing Element policies that would apply to Project's involving housing opportunities; however, as this Project does not include new residential construction (or any removal of existing housing stock), none of the policies would apply to this Project.

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<sup>12</sup> Op. Cit. 2-2.

<sup>13</sup> Tulare County Housing Authority website accessed in May 2019 at: <http://www.hatc.net/about-us.php>.



## IMPACT EVALUATION

### Would the project:

- a) **Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

Project Impact Analysis: *No Impact*

The proposed Project does not include new homes. As part of the proposed expansion, the number of employees is anticipated to result in 15-20 employees. This increase in new jobs would not induce population growth because of the relative size of the growth, the available workforce within the County that is currently unemployed (8% reported for October 2019)<sup>14</sup>, the availability of local housing (the Project is approximately two miles from the City of Visalia and approximately four miles from the City of Tulare). In addition, the proposed Project site is located in a rural area and development of this business would not induce nearby parcels to either build new residences or create new businesses. As such, the Project would result in *No Project-specific Impact* related to this Checklist Item.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, and/or Tulare County 2030 General Plan EIR. *No Cumulative Impact* related to this Checklist Item will occur.

*No Cumulative Impact* related to this Checklist Item will occur.

Mitigation: *None Required*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item will occur.

- b) **Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

Project Impact Analysis: *No Impact*

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<sup>14</sup> State of California Employment Development Department Tulare County Profile. Accessed in November 2019 at: <https://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/localAreaProfileQSResults.asp?selectedarea=Tulare+County&selectedindex=54&menuChoice=localAreaPro&state=true&geogArea=0604000107&countyName=>



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There are no existing occupied homes on the proposed Project site and no homes in the immediate vicinity would be displaced because of Project implementation, as Project implementation would be contained to the proposed Project site. As such, there would be ***No Impact*** related to this Checklist Item.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

As noted earlier, there are no existing homes on the proposed Project site and the proposed Project will not displace any additional housing units. ***No Cumulative Impact*** related to this Checklist Item will occur.

Mitigation: ***None Required.***

Conclusion: ***No Impact***

As noted above, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.

## REFERENCES

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# Public Services

## Chapter 3.15

### SUMMARY OF FINDINGS

The proposed Project will result in a *Less Than Significant Impact* related to Public Services. A detailed review of potential impacts is provided in the analysis below.

### INTRODUCTION

#### California Environmental Quality Act (CEQA)

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts to Land Use and Recreation. As required in Section 15126, all phases of the proposed Project will be considered was part of the potential environmental impact.

As noted in Section 15126.2 (a), “[a]n EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.”<sup>1</sup>

The “Environmental Setting” provides a description of the Public Services Setting in Tulare County. The “Regulatory Setting” provides a description of applicable Federal, State, and Local regulatory policies that were developed in part from information contained in the Tulare County

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<sup>1</sup> CEQA Guidelines, Section 15126.2.



2030 General Plan, Tulare County General Plan Background Report, and/or Tulare County 2030 General Plan EIR incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the proposed Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

### Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist Item questions. The following are potential thresholds for significance.

- Result in the need for new fire facilities that would have impacts
- Result in the need for new Police Services
- Result in the need for new schools or physically overcrowded schools
- Result in the overuse of Parks
- Result in the need for other new Public Facilities

## **ENVIRONMENTAL SETTING**

### Fire Protection

#### *Tulare County*

The [formerly titled] California Department of Forestry and Fire Protection/Tulare County Fire Department (now CalFire/TCFD) serve 145,128 of Tulare County's population and in 2002, averaged 38.4 calls per day.<sup>2</sup> Fire occurrence data generated by the department indicate a direct relationship between high use areas of the county and fire occurrence. The population increase in the mountain areas have caused increased wildland urban interface problems as well. Structures are being built throughout wildland areas wherein vegetation fires can spread rapidly. Providing adequate fire protection to those structures has become a major undertaking.<sup>3</sup>

The Tulare County Fire Department's 2013 Annual Report provides a summary of Incident Reports by major incident type as shown in **Table 3.15-1**<sup>4</sup>

<b>Table 3.15-1 Summary of Incidents</b>		
<b>MAJOR INCIDENT TYPE</b>	<b># INCIDENTS</b>	<b>% OF TOTAL</b>
<b>Fires</b>	1484	12.28
<b>Overpressure, Rupture, ...</b>	3	0.3
<b>Rescue &amp; Emergency Medical</b>	7234	59.88
<b>Hazardous Conditions</b>	325	2.6
<b>Service Calls</b>	666	5.5
<b>Good Intent</b>	1892	15.66

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<sup>2</sup> Tulare County General Plan 2030 Update, *Background Report*, Table 7-6. Accessed May 2019 at: <http://generalplan.co.tulare.ca.us/>.

<sup>3</sup> Ibid. Page 7-73.

<sup>4</sup> Tulare County Fire Department's 2013 Annual Report. Page 9. Accessed on January 9, 2014 at: <http://tularecounty.ca.gov/fire/index.cfm/departement-information-for-the-field/annual-report-2013/>.



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Table 3.15-1 Summary of Incidents		
MAJOR INCIDENT TYPE	# INCIDENTS	% OF TOTAL
False Alarm	358	2.9
Severe Weather	3	0.0
Special Type	8	0.7
<b>TOTAL</b>	<b>12,084</b>	<b>100</b>

As shown in **Table 3.15-1**, the Tulare County Fire Department responded to 12,084 calls for service in 2012; a majority of the calls were for rescue and medical emergencies (59.8 percent) followed by fire calls (12.28 percent) and “good intent” (15.6 percent) as the top three incident types. The nearest Tulare County Fire station is the Goshen #7 Fire Station which is approximately 5.5 miles north of the proposed Project site and serves northern Tulare County. The station is backed up (via mutual aid response) by fire stations located in the Cities of Visalia and Tulare.

CalFire/TCFD uses an “attack” time protocol of less than ten minutes to respond to 90 percent of the calls on the valley floor and less than 15 minutes on 75 percent of calls in the foothill and mountain areas. The proposed Project site is within both the 10- and 15-minute response areas.<sup>5</sup>

#### Police Protection

##### *Tulare County*

“In 2007, the Tulare County Sheriff’s Department currently had 448 sworn officers serving its unincorporated population (145,128), and generates a level of service ratio of 3.2 officers per 1,000 residents. The ratio is above the accepted standard of 2.0 officers per 1,000 residents set by the Federal Bureau of Investigation. The Sheriff’s Department also has 186 non-sworn clerical and support staff amounting to total Sheriff’s Department staff personnel of 633 employees.”<sup>6</sup>

“Law enforcement protection for the unincorporated county is divided into 22 areas with four stations... [T]he Porterville substation serves the largest number of areas with 10 patrols, followed by the headquarters in Visalia with six, and Cutler-Orosi and Pixley, each with three areas.”<sup>7</sup> As noted earlier, the nearest Tulare County Fire Station in No. 7 located in Goshen approximately 5.5 miles from the Project site.

According to the Tulare County Sheriff’s Department 2014-2015 Annual Report (page 6), there are currently 592 allocated sworn officers serving the unincorporated population of 146,651 resulting in a service ratio of 2.47%. This ratio is still above the accepted standard of 2.0 officers per 1,000 residents set by the Federal Bureau of Investigation. The Sheriff’s Department also has

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<sup>5</sup> Ibid.

<sup>6</sup> Tulare County General Plan 2030 Update, *Background Report*, Pages 7-71 to 7-72.

<sup>7</sup> Ibid. Page 7-72.



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allocated 252 non-sworn clerical and support staff amounting to the Sheriff's Department staff personnel of 844 total employees.<sup>8</sup>

### Schools

#### *Tulare County*

"A total of 48 school districts provide education throughout Tulare County... Of the 48 school districts, seven are unified districts providing educational services for kindergarten through 12<sup>th</sup> grade. The remaining 41 districts consist of 36 elementary school districts and four high school districts. Many districts only have one school."<sup>9</sup>

"Total enrolment in Tulare County public schools has increased from about 80,000 to 88,300 students during a nine-year span from 1993 to 2002. On average, the growth rate has remained steady with annual increases approximating two percent."<sup>10</sup>

The nearest schools to the Project site are Sycamore Valley Academy (a K-8 Charter School, approximately one mile west of the Project site) and Linwood Elementary School in Visalia (approximately 3.0 miles east of the Project site).

### Parks

#### *Tulare County*

There are a number of Federal, State, and local parks within Tulare County. There are 13 park and recreational facilities operated by Tulare County. A list of the nearest local park facilities is provided in Table 3.15-2.

<b>Table 3.15-2</b>			
<b>Nearest Recreational Areas to Project Site in Tulare County</b>			
<b>Recreation Area</b>	<b>Location</b>	<b>Acres</b>	<b>Type of Use/Features</b>
Cutler Park	5 miles east of Visalia at SR 216 to Ivanhoe.	50	Reservations for picnic areas are taken. Entrance fee for vehicles.
Elk Bayou Park	6 miles SE of Tulare at Avenue 200.	60	Reservations for picnic areas are taken. No fee for day use.
Kings River Nature Preserve	2 miles east of SR 99 at Road 28	85	This park is only for school environmental programs.

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<sup>8</sup> Tulare County Sheriff's Department 2014-2015 Annual Report. Page 6. Accessed on January 31, 2016 and available at: <http://www.tularecounty.ca.gov/sheriff/index.cfm/community/2014-2015-annual-report/>

<sup>9</sup> Tulare County General Plan 2030 Update, *Background Report*. Pages 7-75 to 7-76.

<sup>10</sup> Ibid. Page 7-76.



<b>Table 3.15-2</b>			
<b>Nearest Recreational Areas to Project Site in Tulare County</b>			
<b>Recreation Area</b>	<b>Location</b>	<b>Acres</b>	<b>Type of Use/Features</b>
Ledbetter Park	1 mile northwest of Cutler on Road 124/Hwy 63	11	Reservations for picnic areas are taken. No fee.
Mooney Grove Park	2 Miles south of Caldwell Avenue on Mooney Blvd. In South Visalia.	143	Reservations for picnic areas are taken. Paddle boats, playground, baseball diamonds. Home of the End Trail statue. One of the largest oak woodlands in Tulare County. Location of the Agriculture and Farm Labor Museum.
Tulare County Museum	In Mooney Grove Park, South Visalia.	8.5	Free admission with park fee. Museum is opened Thursday thru Monday (closed Tuesday and Wednesday).
West Main Street Park	2 blocks west of County Courthouse on Main Street in Downtown Visalia.	5	Day use no entrance fee.

A more detailed discussion of recreational facilities is provided in Chapter 3.16 Recreation

### Library

#### *Tulare County*

“The Tulare County Public Library System comprises of interdependent branches, grouped by services, geography and usage patterns to provide efficient and economical services to the residents of the county. At present, there are 14 [17 as of October 2019<sup>11</sup>] regional [branch] libraries and one main branch.”<sup>12</sup> The nearest library to the Project site is Visalia Main Branch Library (located at 200 West Oak Avenue in Visalia).

## **REGULATORY SETTING**

### ***Federal Agencies & Regulations***

None that apply to the proposed Project.

### ***State Agencies & Regulations***

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<sup>11</sup> Tulare County Library. Locations. Accessed October 2019 at: <https://www.tularecountylibrary.org/locations>.

<sup>12</sup> Tulare County General Plan 2030 Update, *Background Report*. Page 7-96. Accessed June 2019 at: <http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/Appendix%20B%20-%20Background%20Report.pdf>.



None that apply to the proposed Project.

### ***Local Policy & Regulations***

#### **Tulare County General Plan Policies**

The Tulare County General Plan has several policies that apply to projects within County of Tulare. As the Project will not result in population growth, the Project would not impact schools, parks, or library services. The following General Plan fire and sheriff protection policies that relate to the proposed Project are:

**PFS-7.1 Fire Protection** - The County shall strive to expand fire protection service in areas that experience growth in order to maintain adequate levels of service.

**PFS-7.2 Fire Protection Standards** - The County shall require all new development to be adequately served by water supplies, storage, and conveyance facilities supplying adequate volume, pressure, and capacity for fire protection.

**PFS-7.3 Visible Signage for Roads and Buildings** - The County shall strive to ensure all roads are properly identified by name or number with clearly visible signs.

The County shall strive to ensure all roads are properly identified by name or number with clearly visible signs.

**PFS-7.5 Fire Staffing and Response Time Standards** - The County shall strive to maintain fire department staffing and response time goals consistent with National Fire Protection Association (NFPA) standards, and as provided in **Table 3.15-3**.

<b>Table 3.15-3</b>			
<b>Fire Staffing and Response Time Standards<sup>13</sup></b>			
	<b>Demographics</b>	<b>Staffing/Response Time</b>	<b>% of Calls</b>
<b>Urban</b>	> 1,000 people/sq. mi.	15 FF/9 min.	90
<b>Suburban</b>	500-100 people/sq. mi.	10 FF/10 min.	80
<b>Rural</b>	< 500 people/sq. mi.	6 FF/14 min.	80
<b>Remote*</b>	Travel Dist. > 8 min.	4 FF/no specific response time	90
<i>*Upon assembling the necessary resources at the emergency scene, the fire department should have the capacity to safely commence an initial attack within 2 minutes, 90% of the time. (FF = Fire Fighters)</i>			

**PFS-7.6 Provision of Station Facilities and Equipment** - The County shall strive to provide sheriff and fire station facilities, equipment (engines and other apparatus), and staffing necessary to maintain the County's service goals. The County shall continue to cooperate with mutual aid providers to provide coverage throughout the County.

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<sup>13</sup> Tulare County General Plan 2030 Update. Policy PFS – 7.5.



**PFS-7.8 Law Enforcement Staffing Ratios** - The County shall strive to achieve and maintain a staffing ratio of 3 sworn officers per 1,000 residents in unincorporated areas.

**PFS-7.9 Sheriff Response Time** - The County shall work with the Sheriff's Department to achieve and maintain a response time of:

1. Less than 10 minutes for 90 percent of the calls in the valley region; and
2. 15 minutes for 75 percent of the calls in the foothill and mountain regions.

**PFS-7.12 Design Features for Crime Prevention and Reduction** - The County shall promote the use of building and site design features as means for crime prevention and reduction.

## IMPACT EVALUATION

- a) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

### **Fire protection?**

#### Project Impact Analysis:

#### *Less Than Significant Impact*

The proposed Project is within the service area of the Tulare County Fire Department. The County of Tulare Fire Department has 28 stations that are located throughout the County within its most densely populated areas and currently maintains minimal staffing to meet the requirements set forth under NFPA 1720-1721 for a rural area. These requirements consist of one full-time person per station per shift with other paid on-call firefighters. Per the Tulare County Fire Department, while this is sufficient to meet the basic needs of the County, this level of staffing often results in an elevated fire loss value during some emergency conditions when compared with other departments with additional staff support.<sup>14</sup>

The Goshen Fire Station, which is the nearest and would likely serve the proposed Project, is not listed among the stations needing relocation, repair or upgrade. Project-specific impacts related to this checklist item will not likely occur as the proposed Project is not increasing the service area for the Goshen Fire Station. The site has had industrial occupants since 2010.

*Less Than Significant Project-specific Impacts* related to this Checklist Item will occur.

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<sup>14</sup> County of Tulare. Tulare County General Plan 2030 Update, Recirculated Draft Environmental Impact Report (RDEIR) February 2010. Accessed April 2019 at: <http://generalplan.co.tulare.ca.us/documents/generalplan2010/RecirculatedDraftEIR.pdf>.



Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and the Tulare County 2030 General Plan EIR.

The proposed Project will not significantly impact the fire department's response times. Therefore, ***Less Than Significant Cumulative Impacts*** related to this Checklist Item will occur.

Mitigation: ***None Required.***

Conclusion: ***Less Than Significant Impact***

As the Project will be required to comply with applicable Building, Fire, Mechanical, Electrical and Plumbing Codes, and Fire Department approval, the Project-specific impacts related to this Checklist item will be ***Less Than Significant*** level. ***No Cumulative Impacts*** related to this Checklist Item will occur.

**Police protection?**

Project Impact Analysis: ***No Impact***

The County of Tulare's Sheriff's Office will provide police protection services to the proposed Project upon development. Emergency response is adequate to the proposed Project. No residential construction is proposed for this site. There will be ***No Impact*** to police services.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and/or the Tulare County 2030 General Plan EIR.

As noted earlier, the proposed Project will not impact Police Services. As such, ***No Cumulative Impacts*** related to this Checklist Item will occur.

Mitigation: ***None required.***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.



## **Schools?**

Project Impact Analysis: *No Impact*

As noted earlier, the nearest schools to the Project site are Sycamore Valley Academy (a K-8 Charter School, approximately one mile west of the Project site) and Linwood Elementary School in Visalia (approximately 3.0 miles east of the Project site). However, the proposed Project will not include any residential housing and will not generate any new school students at any grade level.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and/or the Tulare County 2030 General Plan EIR.

As noted earlier, the proposed Project will not impact Schools. As such, *No Cumulative Impacts* related to this Checklist Item will occur.

Mitigation: *None Required.*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item will occur.

## **Parks?**

Project Impact Analysis: *No Impact*

As discussed in Chapter 3.16 Recreation, the nearest County owned/operated public parks are Goshen Community Park (approximately five miles north), Mulloch Park in Goshen (approximately 5.5 miles north), and Mooney Grove Park in Visalia (approximately six miles southeast). Plaza and Sunset Parks, owned and operated by the City of Visalia, are approximately 2.5 miles northeast and 2.5 miles east; respectively. As the Project would not result in any new residential housing development, would result in a limited number of employees (15-20), and will likely draw from the local labor force, the Project would not induce population growth nor the accompanying number of persons who would use park facilities. As such, there would be *No Impact* to this resource.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and/or the Tulare County 2030 General Plan EIR.



As noted earlier, the proposed Project will not impact to Parks. As such, a ***No Cumulative Impact*** related to this Checklist Item will occur.

Mitigation: ***None Required.***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.

**Other public facilities?**

Project Impact Analysis: ***No Impact***

Other public facilities that may be impacted include water treatment plants, libraries, and solid waste disposal facilities.

The Project will rely on an existing and possibly a new septic system. The proposed Project is not connected to a sewer line nor does it rely on a wastewater treatment facility to provide wastewater treatment. Thus, the proposed Project will not impact service levels of a waste water treatment facility.

The proposed Project does not involve the creation of any new residences and will not impact library service levels. As such, ***No Project-specific Impact*** related to this Checklist Item will occur.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and/or the Tulare County 2030 General Plan EIR.

As noted earlier, the proposed Project will not impact other public facilities. As such, ***No Cumulative Impact*** related to this Checklist Item will occur.

Mitigation: ***None Required.***

Conclusion: ***No Impact***

As noted earlier, ***Less Than Significant Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.



## REFERENCES

CEQA Guidelines, Section 15126.2.

Tulare County General Plan 2030 Update, August 2012. <http://generalplan.co.tulare.ca.us/>. Accessed May 2019.

Tulare County General Plan 2030 Update, Background Report, February 2010. Accessed June 2019 at: <http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/Appendix%20B%20-%20Background%20Report.pdf>.

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Tulare County Library. Library hours as of 2019. Locations information can be found at: <https://www.tularecountylibrary.org/locations>. Accessed May 2019.



# Recreation

## Chapter 3.16

### SUMMARY OF FINDINGS

The proposed Project will result in *No Impact* related to Recreation. No mitigation measures will be required. A detailed review of potential impacts is provided in the following analysis.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts to Recreation. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in Section 15126.2(a), “[a]n EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.”<sup>1</sup>

The “Environmental Setting” provides a description of the Recreational Resources in the County. The “Regulatory Setting” provides a description of applicable Federal, State and Local regulatory policies that were developed in part from information contained in the Tulare County

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<sup>1</sup> 2013 CEQA Guidelines, Section 15126.2(a).



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General Plan 2030 Update, Tulare County General Plan 2030 Update Background Report, and/or Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (RDEIR) incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the proposed Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

### Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist item questions. The following are potential thresholds for significance:

- Increase use of existing recreational facilities
- Include or require additional recreational facilities

## **ENVIRONMENTAL SETTING**

“Tulare County contains several county, state, and federal parks. Aside from parks in the county, there are many open space areas as well. This section will highlight these various parks and open space areas and identify recreational opportunities within them.”<sup>2</sup> In addition to the 13 parks and recreation facilities that are owned and operated by the County of Tulare, there are State Parks and Forests, National Parks and National Forests, and trails and recreational areas. See **Table 3.16-1** for a list of Recreational areas and facilities in Tulare County.

<b>Table 3.16-1 Recreational Areas in Tulare County<sup>3</sup></b>				
<b>ID</b>	<b>Recreation Area</b>	<b>Location</b>	<b>Acres</b>	<b>Type of Use/Features</b>
<b>County</b>				
1	Alpaugh Park	Located in Alpaugh on Road 40.	3	Reservations for picnic areas are taken. No entrance fee.
2	Balch Park Campgrounds	20 miles NE of Springville in the Sierras.	160	71 Campsites. No reservations taken; first come first serve basis. Entrance fee for vehicles.
3	Bartlett Park	8 miles east of Porterville on North Drive.	127.5	Reservations for picnic areas are taken. Entrance fee for vehicles.
4	Camp COTYAC	Near Ponderosa in Eastern Tulare County.	8	County of Tulare Youth Adventure Camp (Camp COTYAC). Cabins, lodge with kitchen, restrooms and showers.
5	Cutler Park	5 miles east of Visalia on SR 216 to Ivanhoe.	50	Reservations for picnic areas are taken. Entrance fee for vehicles.

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<sup>2</sup> Tulare County General Plan 2030 Update Background Report. February 2010. Page 4-1 Accessed June 2019 at: <http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/BackgroundReport.pdf>.

<sup>3</sup> Ibid. Table 4-1. 4-4.



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<b>Table 3.16-1 Recreational Areas in Tulare County<sup>3</sup></b>				
<b>ID</b>	<b>Recreation Area</b>	<b>Location</b>	<b>Acres</b>	<b>Type of Use/Features</b>
6	Elk Bayou Park	6 miles SE of Tulare on Avenue 200.	60	Reservations for picnic areas are taken. No fee for day use.
7	Kings River Nature Preserve	2 miles east of SR 99 on Road 28	85	This park is only for school environmental programs.
8	Ledbetter Park	1 mile northwest of Cutler on Road 124/Hwy 63	11	Reservations for picnic areas are taken. No fee.
9	Mooney Grove Park	2 Miles south of Caldwell Avenue on Mooney Blvd. In South Visalia.	143	Reservations for picnic areas are taken. Paddle boats, playground, baseball diamonds. Home of the End Trail statue. One of the largest oak woodlands in Tulare County. Location of the Agriculture and Farm Labor Museum.
10	Pixley Park	1 mile NE of Pixley on Road 124.	22	Reservations for picnic areas are taken. No fee.
11	Tulare County Museum	In Mooney Grove Park, South Visalia, east of SR 63.	8.5	Free admission with park fee. Museum is opened Thursday thru Monday (closed Tuesday and Wednesday).
12	Woodville Park	Located in Avenue 166 in Woodville.	10	Reservations for picnic areas are taken. Day use no entrance fee.
13	West Main Street Park	2 blocks west of County Courthouse on Main Street in Downtown Visalia.	5	Day use no entrance fee.
<b>State</b>				
14	Colonel Allensworth State Historic Park	7 miles west of Earlimart on County Road J22.	3,715	15 campsites, open year round.
15	Mountain Home State Forest	Located in Sequoia National Forest	4,807	No reservations taken for campgrounds.
<b>Federal</b>				
16	Lake Kaweah	25 miles east of Visalia off SR 198.	2,558	Horse Creek Campground, boat ramps, picnic areas, swimming, and hiking.
17	Lake Success	10 miles SE of Porterville off SR 198.	2,450	Tule Campground, boating, fishing, picnic areas, playgrounds, and softball field. Hunting is permitted in the Wildlife Management Area.
18	Sequoia National Forest	Southeastern portion of Tulare County.	na	Campgrounds include Gray's Meadow, Oak Creek, Onion Valley, Stony Creek, Sunset, and Whitney Portal with over 300 campsites.
19	Giant Sequoia National Monument	Covers areas north and south of Sequoia and Kings Canyon National Parks.	na	
20	Sequoia and Kings Canyon National Parks (SEKI)	Northeastern portion of Tulare County.	na	Campgrounds include Atwell Mill Campground, Buckeye Flat, Cold Springs, Crystal Springs, Dorst Campground, Lodgepole, Moraine, Potwisha, Sheep Creek, and South Fork with over 800 campsites.



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Table 3.16-1 Recreational Areas in Tulare County <sup>3</sup>				
ID	Recreation Area	Location	Acres	Type of Use/Features
Total Acres			5,701	

### ***Federal Recreation Areas***

#### ***Lake Kaweah***

“Lake Kaweah was formed after the construction of the Terminus Dam on the Kaweah River in 1962. The lake offers many recreational opportunities including fishing, camping, and boating. Lake Kaweah is located 20 miles east of Visalia on Highway [SR] 198 and was constructed by the U.S. Army Corps of Engineers for flood control and water conservation purposes. The lake has a maximum capacity to store 143,000 acre-feet of water. There are a total of 80 campsites at the lake’s Horse Creek Campground, which contains toilets, showers and a playground. Campfire programs are also available. Aside from camping, boat ramps are provided at the Lemon Hill and Kaweah Recreation Areas. Both Kaweah and Horse Creek provide picnic areas, barbecue grills and piped water. Swimming is allowed in designated areas. In addition, there is a one-mile hiking trail between Slick Rock and Cobble Knoll, which is ideal for bird watching.”<sup>4</sup>

#### ***Lake Success***

“Lake Success was formed by construction of the Success Dam on the Tule River in 1961. The lake offers many recreational activities including fishing, boating, waterskiing, and picnicking. The U.S. Army Corps of Engineers (USACOE) constructed this reservoir for both flood control and irrigation purposes. The lake has a capacity of 85,000 acre-feet of water. The lake is located eight miles east of Porterville in the Sierra Nevada foothills area. Recreational opportunities include ranger programs, camping at the Tule campground, which provides 104 sites, boating, fishing, picnic sites, playgrounds and a softball field. Seasonal hunting is also permitted in the 1,400-acre Wildlife Management Area.”<sup>5</sup>

### ***National Parks and National Forests***

“Most of the recreational opportunities in the county are located in Sequoia National Forest, Giant Sequoia National Monument, and in Sequoia and Kings Canyon National Parks (SEKI). Although these parks span adjacent counties, they make a significant contribution to the recreational opportunities that Tulare County has to offer.”<sup>6</sup> See **Table 3.16-2** for a list of National Park and Forest facilities.

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<sup>4</sup> Op. Cit. 4-7.

<sup>5</sup> Op. Cit.

<sup>6</sup> Op. Cit. 4-8.



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**Table 3.16-2  
National Park and Forest Facilities<sup>7</sup>**

<b>Recreation Area</b>	<b>Location</b>	<b>Camping Sites</b>
<b>Sequoia National Forest</b>		
Gray's Meadow	5 miles West of Independence on Onion Valley Road.	52 tent/RV sites
Oak Creek	4 ½ miles NW of Independence off SR 395.	21 tent/RV sites
Onion Valley	14 miles West of Independence on Onion Valley Road.	29 tent/RV sites
Stony Creek	14 miles SE of Grant Grove on Generals Highway.	49 tent/RV sites
Whitney Portal	13 miles West of Lone Pine on Whitney Portal Road.	43 tent/RV sites
<b>Total</b>		<b>194 sites</b>
<b>Kings Canyon and Sequoia National Park</b>		
Atwell Mill	Sequoia, 19 miles from SR 198 on Mineral King Road.	21 tent sites
Azalea	Kings Canyon, 3 ½ miles from Kings Canyon Park entrance.	110 tent sites
Buckeye Flat	Sequoia, 11 miles South of Giant Forest of Generals Highway.	28 tent sites
Canyon View	Cedar Grove in Kings Canyon N.P.	23 tent sites
Cold Springs	Sequoia, Mineral King Area.	25 tent sites
Crystal Springs	Kings Canyon, ½ mile North of Grant Grove.	67 tent/RV sites
Dorst Creek	Sequoia, 9 miles North of Lodgepole off Generals Highway.	210 tent/RV sites
Lodgepole	Sequoia, 4 miles NE of Cedar Grove.	203 tent/RV sites
Moraine	Kings Canyon, 1 mile east of Cedar Grove.	120 tent/RV sites
Potwisha	Sequoia, 4 miles NE of Ash Mountain entrance off Generals Highway.	42 tent/RV sites
Sentinel	In the Cedar Grove area near the Kings River.	82 tent sites
Sheep Creek	Kings Canyon, 1/2-mile West of Cedar Grove.	111 tent/RV sites
South Fork	Sequoia, 13 miles on South Fork from SR 198.	10 tent sites
Sunset	In the Grant Grove area 3 miles from Kings Canyon park entrance.	157 tent sites
<b>Total</b>		<b>1,209 sites</b>

### Sequoia National Forest

“Sequoia National Forest takes its name from the Giant Sequoia, which is the world’s largest tree. There are more than 30 groves of sequoias in the lower slopes of the park. The park includes over 1,500 miles of maintained roads, 1,000 miles of abandoned roads and 850 miles of trails for hikers, off-highway vehicle users and horseback riders. The Pacific Crest Trail connecting Canada and Mexico, crosses a portion of the forest, 78 miles of the total 2,600 miles of the entire trail. It is estimated that 10 to 13 million people visit the forest each year.”<sup>8</sup>

### Giant Sequoia National Monument

“The Giant Sequoia National Monument was created in 2000 by President Clinton in an effort to preserve 34 groves of ancient sequoias located in the Sequoia National Forest. The Monument includes a total of 327,769 acres of federal land, and provides various recreational opportunities, including camping, picnicking, fishing, and whitewater rafting. According to the Giant Sequoia National Monument Management Plan EIS, the Monument includes a total of 21 family

<sup>7</sup> Op. Cit. Table 4-2. 4-8.

<sup>8</sup> Op. Cit. 9. Accessed June 2019 at: <http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/BackgroundReport.pdf>



campgrounds with 502 campsites and seven group campgrounds. In addition, there are approximately 160 miles of system trails, including 12 miles of the Summit National Recreation Trail.”<sup>9</sup>

#### *Sequoia and Kings Canyon National Parks (SEKI)*

“The U.S. Congress created the Kings Canyon National Park in 1940 and Sequoia National Park in 1890. Because they share many miles of common boundaries, they are managed as one park. The extreme large elevation ranges in the parks (from 1,500 to 14,491 feet above sea level), provide for a wide range of vegetative and wildlife habitats. This is witnessed from exploring Mt. Whitney, which rises to an elevation of 14,491 feet, and is the tallest mountain in the contiguous United States. During the summer months, park rangers lead walks through the parks, and tours of Crystal and Boyden Caves. During the winter, visitors explore the higher elevations of the parks via cross country skis or snowshoes, or hike the trails in the foothills. The SEKI also contains visitor lodges, the majority of which are open year round. According to the National Parks Conservation Association, a combined total of approximately 1.4 million people visit the two parks on an annual basis.”<sup>10</sup>

#### ***State Parks and Forests***

##### *Colonel Allensworth State Park*

“The only State Park in Tulare County is Colonel Allensworth State Historic Park discussed in Section 9.3 [of the General Plan Background Report]. The park contains a museum and a visitor center addressing the town’s history, as well as camping facilities. Allensworth is the only California town to be founded, financed and governed by African Americans. The small farming community was founded in 1908 by Colonel Allen Allensworth and a group of others dedicated to improving the economic and social status of African Americans. Uncontrollable circumstances, including a drop in the area’s water table, resulted in the town’s demise. With continuing restoration and special events, the town is coming back to life as a state historic park. The park’s visitor center features a film about the site. A yearly rededication ceremony reaffirms the vision of its pioneers.”<sup>11</sup>

##### *Mountain Home State Forest*

“The Mountain Home State Forest is a State Forest managed by the California Department of Forestry and Fire Protection (CDF). The Forest consists of 4,807 acres of parkland containing a number of Giant Sequoias, and is located just east of Porterville. The Forest is a Demonstration Forest, which is considered timberland that is managed for forestry education, research, and recreation. Fishing ponds, hiking trails, and campsites are some of the amenities that can be found in the Forest.”<sup>12</sup>

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<sup>9</sup> Op. Cit.

<sup>10</sup> Op. Cit.

<sup>11</sup> Op. Cit. 4-3.

<sup>12</sup> Op. Cit. 4-7.



### ***Other Recreational Facilities***

Other recreational resources available in Tulare County include portions of the Pacific Crest Trail, South Sierra Wilderness Area, Dome Land Wilderness Area, Golden Trout Wilderness Area, International Agri-Center, and the Tulare County Fairgrounds.<sup>13</sup>

In addition, there are several nature preserves open to the public which are owned and operated by non-profit organizations, including the Kaweah Oaks Preserve and Dry Creek- Homer Ranch preserves, both owned and operated by Sequoia Riverlands Trust.

Incorporated cities in the County also have a number of recreational facilities including neighborhood parks, play lots, pocket parks and other recreation facilities.<sup>14</sup>

## **REGULATORY SETTING**

### ***Federal Agencies & Regulations***

#### United States National Park Service (NPS)

“The National Park Service (NPS) is a bureau of the U.S. Department of the Interior. “The National Park Service manages 418 individual units covering more than 84 million acres in all 50 states, the District of Columbia, and US territories. While there are at least 19 naming designations, these units are commonly referred to as "parks." Multiple parks may be managed together as an administrative unit with the National Park Service.”<sup>15</sup>

### ***State Agencies & Regulations***

#### California Department of Parks and Recreation

“California Department of Parks and Recreation manages 280 park units, which contain the finest and most diverse collection of natural, cultural, and recreational resources to be found within California. These treasures are as diverse as California: From the last stands of primeval redwood forests to vast expanses of fragile desert; from the lofty Sierra Nevada to the broad sandy beaches of our southern coast; and from the opulence of Hearst Castle to the vestiges of colonial Russia. California State Parks contains the largest and most diverse natural and cultural heritage holdings of any state agency in the nation. The State Park System includes State Parks, State Natural Reserves, State Historic Parks, State Historic Monuments, State beaches, State Recreation Areas, State Vehicular Recreation Areas, State Seashores and State Marine Parks. Within the system are Natural and Cultural Preserves, lakes and reservoirs, coastal beaches, historic homes, Spanish era adobe buildings, lighthouses, ghost towns, museums, visitor centers, conference centers, and off-highway vehicle recreation areas. Together, State Park System lands

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<sup>13</sup> Ibid. 3.9-32.

<sup>14</sup> Op. Cit. 3.9-29.

<sup>15</sup> National Park Service. Accessed February 2019 at: <https://www.nps.gov/aboutus/national-park-system.htm>.



protect and preserve an unparalleled collection of culturally and environmentally sensitive structures and habitats, threatened plant and animal species, ancient Native American sites, historic structures and artifacts... the best of California's natural and cultural history.”<sup>16</sup>

### ***Local Policy & Regulations***

#### Tulare County General Plan Policies

**ERM-5.2 Park Amenities** - The County shall provide a broad range of active and passive recreational opportunities within community parks. When possible, this should include active sports fields and facilities, community center/recreation buildings, children’s play areas, multi-use areas and trails, sitting areas, and other specialized uses as appropriate.

**ERM-5.3 Park Dedication Requirements** - The County shall require the dedication of land and/or payment of fees, in accordance with local authority and State law (for example the Quimby Act), to ensure funding for the acquisition and development of public recreation facilities.

**ERM-5.5 Collocated Facilities** - The County shall encourage the development of parks near public facilities such as schools, community halls, libraries, museums, prehistoric sites, and open space areas and shall encourage joint-use agreements whenever possible.

## **IMPACT EVALUATION**

- a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

Project Impact Analysis:

***No Impact***

Typically, the increased use of parks and recreational facilities result from the addition of new housing and the proposed Project. The applicant is seeking to operate an asphalt/concrete batch plant which will result in 15-20 new employees whom will likely be drawn from the existing labor force, as such, there is ***No Impact*** on any recreational facilities.

Cumulative Impact Analysis:

***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County General Plan 2030 Update, Tulare County General Plan 2030 Update Background Report, and the Tulare County General Plan 2030 Update RDEIR.

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<sup>16</sup> California Dept. of Parks and Recreation. Accessed September 2019 at: [http://www.parks.ca.gov/?page\\_id=91](http://www.parks.ca.gov/?page_id=91).



The proposed Project does not include housing or the accompanying population growth. The proposed Project will result in the need of 15-20 employees, which will not significantly increase the use of parks or recreational facilities. As such, *Less Than Significant Impact* related to this Checklist Item will occur.

Mitigation: *None Required.*

Conclusion: *Less Than Significant Impact*

As noted earlier, *Less Than Significant Project-specific or Cumulative Impacts* related to this Checklist Item will occur.

**b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

Project Impact Analysis: *No Impact*

As noted earlier, the proposed Project does not include new recreational facilities or the expansion of recreational facilities. And, as it will result in about 15-20 jobs which are anticipated to be filled by local residents, it will not result in the need for additional recreational facilities that are currently available. As such, *No Project-specific Impacts* related to this Checklist Item will occur.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County General Plan 2030 Update, Tulare County General Plan 2030 Update Background Report, and the Tulare County General Plan 2030 Update RDEIR.

As noted earlier, the proposed Project does not include new recreational facilities or the expansion of recreational facilities. As such, *No Cumulative Impacts* related to this Checklist Item will occur.

Mitigation: *None Required.*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item will occur.



## REFERENCES

California Department of Parks and Recreation. [http://www.parks.ca.gov/?page\\_id=91](http://www.parks.ca.gov/?page_id=91). Accessed September 2019.

CEQA Guidelines, Section 15126.2(a)

National Park Service. <https://www.nps.gov/aboutus/national-park-system.htm>. Accessed June 2019.

Tulare County General Plan 2030 Update. August 2012 Accessed June 2019 at:  
<http://generalplan.co.tulare.ca.us/documents.html>.

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<http://generalplan.co.tulare.ca.us/documents/generalplan2010/RecirculatedDraftEIR.pdf>.



# Transportation

## Chapter 3.17

### SUMMARY OF FINDINGS

The proposed Project will result in a ***Less Than Significant Impact With Mitigation*** related to Transportation and Traffic. The “*Traffic Impact Study, Proposed Concrete and Asphalt Batch Plant Avenue 280 West of State Route 99 Tulare County, California*” (TIS) report prepared by consultant Peters Engineering Group, is included in Appendix “F” of this document which is used as the basis for determining this Project will result in Less Than Significant Impacts with mitigation incorporated. A detailed review of potential impacts is provided in the following analysis.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts to Transportation and Traffic. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in Section 15126.2 (a), “[a]n EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to



hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.”<sup>1</sup>

The “Environmental Setting” provides a description of the Transportation and Traffic in the County. The “Regulatory Setting” provides a description of applicable Federal, State and Local regulatory policies that were developed in part from information contained in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and/or Tulare County 2030 General Plan EIR incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the proposed Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

### Thresholds of Significance

The thresholds of significance for this section are established by the CEQA Checklist item questions. The following are potential thresholds for significance:

- Result in a Level of Service (LOS) less than “D”
- Unsafe roadway/circulation design
- Impact Air Traffic
- Dangerous Site Design
- Inadequate Access
- Need for additional Public Transit
- Need for additional Bike Facilities
- Need for additional Pedestrian Facilities

## **ENVIRONMENTAL SETTING**

The proposed Project is located on the south side of Avenue 280 west of State Route (SR) 99 and east of Road 76. The site is not within the Sphere of Influence of the City of Visalia, which generally extends to the Avenue 280/SR 99 interchange. The area surrounding the proposed Project site predominantly consists of rural agricultural land, scattered rural residences, a private elementary school, active dairy facilities, the Visalia Municipal Airport (approximately 1.5 miles northeast), and the City of Visalia (approximately 2.5 miles east). The site is surrounded by dairies and dairy-related agricultural fields on its east, west, and south sides; and a walnut orchard to the north. It is generally bound by Avenue 280 (immediately north), Road 68 (0.50 miles west), Avenue 272 (0.75 miles south), and SR 99 (one mile east).

As noted in Chapter 2 Project Description, the concrete batch plant is expected to produce 100,000 cubic yards of concrete per year. Aggregate, cement, and fly ash will be delivered to the site and ready-mix concrete will be delivered from the site. The concrete and asphalt recycling

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<sup>1</sup> CEQA Guidelines, Section 15126.2 (a).



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operation will consist of accepting broken concrete and asphalt from contractors. The concrete and asphalt will be crushed into recycled base; it is anticipated that 30,000 tons of recycled base will be produced per year and delivered from the site. The hot-mix asphalt (HMA) batch plant is expected to produce 150,000 tons of HMA per year. Aggregate, oil, and propane will be delivered to the site and HMA will be delivered from the site. Site access will be provided via one main driveway connecting to the south side of Avenue 280 approximately 1,000 feet east of Road 76.

As described in the TIS, “The study locations were determined based on the anticipated Project traffic distribution, the size of the Project, and the existing conditions in the vicinity of the Project site. The following locations are included in the study:

1. Avenue 280 / Road 68
2. Avenue 280 / SR 99 Southbound Ramps
3. Avenue 280 / Drive 85B / Drive 88
4. SR 99 Northbound Ramps / Drive 88

The study time periods include the weekday a.m. and p.m. peak hours determined between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m.”<sup>2</sup>

“The purpose of the highway, streets and roads section is to identify the existing regional circulation system and determine both feasible short-term and long-range improvements. Tulare County's planned circulation system consists of an extensive network of regional streets and roads, local streets and State Highways. The system is designed to provide an adequate [Level of Service] LOS that satisfies the transportation needs of County residents. However, Tulare County has experienced a large increase in population and is beginning to outgrow portions of the circulation system. The need for major improvements to the State Highways, streets and roads network is an important issue.

The existing State Highway system was completed in the 1950's and 60's. The average design life of a State Highway is approximately 20 years and many Tulare County's highways were constructed 50 years ago. The Agricultural and commercial industry continue to utilize the circulation system to get products to market. With industry intensification and other development, many facilities are beginning to show structural fatigue (e.g., surface cracks, potholes, and broken pavement).”<sup>3</sup>

“Caltrans and the Tulare County region will be placing more emphasis on corridors as an important element of the transportation system. The analysis of the regional circulation system in this 2018 RTP emphasizes people movement through transportation corridors. Caltrans defines a corridor as a "broad geographic area that includes various modes of transportation, local roads

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<sup>2</sup> “Traffic Impact Study Proposed Concrete and Asphalt Batch Plant Avenue 280 West of State Route 99 Tulare County, California” (TIS). Executive Summary. September 2018. Prepared by Peters Engineering Group and included in Appendix “F” of this DEIR.

<sup>3</sup> 2018 Regional Transportation Plan & Sustainable Communities Strategy, Tulare County Association of Governments (TCAG). Page B-50. <http://www.tularecog.org/RTPSCS/ActionElement.pdf>



and State Highways." Corridors may be defined as terms of the number of people or tonnage of freight moved in any particular direction, regardless of the facility.

Caltrans and the Tulare County region will be placing more emphasis on corridors as an important element of the transportation system. The analysis of the regional circulation system in this 2018 RTP emphasizes people movement through transportation corridors. Caltrans defines a corridor as a "broad geographic area that includes various modes of transportation, local roads and State Highways." Corridors may be defined as terms of the number of people or tonnage of freight moved in any particular direction, regardless of the facility.

Caltrans, Regional Transportation Planning Agencies (RTPAs), local transit agencies and local governments have developed the analysis of corridor needs. Caltrans developed a System Management Plan to reflect individual corridors and the relationship to each other. The emphasis on corridor planning will require open communication between the District and locals in order to develop a common database and consistent planning practices.

The 2018 RTP contains goals aimed at protecting and enhancing various corridors [see Figures A-2 and A-3 in the RTP for North/South and East-West Regional Corridors<sup>4</sup>; respectively]. The objective provides guidance toward coordination of local planning processes along the corridors. The policy supports limitation of direct access along regionally significant corridors. The data to be analyzed will include volume, length, type, destination, and modal split of person trips. Analysis of this data will help TCAG determine transportation corridor conditions and needs. In Tulare County major travel corridors often closely mirror regionally significant roadways. Major corridors identified by Caltrans and TCAG include:

- SR- 99 (including UP rail line);
- SR-43 (including BNSF rail line);
- City of Visalia to the City of Tulare including Mooney Boulevard, Demaree/Blackstone/Hillman, Akers Road and transit links;
- SR-65 from SR-198 to the City of Lindsay;
- City of Lindsay to City of Porterville, including SR-65 and Orange Belt Dr.;
- SR-65 from the City of Porterville to the Kern County line;
- SR-198/Sequoia National Park/Exeter/Hanford;
- SR-190/Road 152 from the Kings County line to the City of Porterville; and
- SR-137 from the Kings County line to the City of Lindsay.”<sup>5</sup>

“Tulare County has interregional connections along the SR 198 corridor with Kings County, SR 99 with Kern and Fresno County, and SR 65 with Kern County and Ave 416 with Fresno County. The main corridors are currently running at capacity or near capacity. TCAG has coordinated with surrounding counties to improve these significant corridors By way of Proposition 1B funds, and other local and state funds, the SR-198 corridor has been widened between the cities of Visalia and Hanford. Segments of SR-99 have begun widening at the north end of Tulare County.

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<sup>4</sup> Ibid. B-3 and B-4.

<sup>5</sup> Op. Cit. B-50 and B-51.



TCAG will continue to move forward on these major projects, in close partnership with Caltrans and neighboring jurisdictions.”<sup>6</sup>

As indicated in the 2018 RTP, capacity and level of service are two significant criteria used to measure the ability of a roadway to handle volume and the speed of volume flow; respectively. Following are discussion excerpted from the 2018 RTP:

“Capacity

According to the 2010 Highway Capacity Manual (HCM), capacity is defined as "the maximum sustainable hourly flow rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, environmental, traffic and control conditions, usually expressed as vehicles per hour or persons per hour." The ratio of the roadway volume to its capacity, V/C, can be useful in determining the preliminary Level of Service (LOS) of a roadway.

$\frac{\text{Volume}}{\text{Capacity}} = \frac{\text{Actual number of vehicles.}}{\text{Maximum number of vehicles on a particular segment of roadway during a specific time frame.}}$

Level of Service

LOS is categorized by two parameters, uninterrupted flow and interrupted flow. Uninterrupted flow facilities have no fixed elements, such as traffic signals, that cause interruptions in traffic flow (e.g., freeways, highways, and controlled access, some rural roads). Interrupted flow facilities have fixed elements that cause an interruption in the flow of traffic such as stop signs and signalized intersections. The definitions and measurements used for determining level of service in interrupted and uninterrupted conditions are shown below:

Uninterrupted Traffic Flow Facilities

LOS A: Describes free-flow operations. Free-Flow Speed (FFS) prevails on the freeway, and vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. The effects of incidents or point breakdowns are easily absorbed.

LOS B: Represents reasonably free-flow operations, and FFS on the freeway is maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high. The effects of minor incidents and point breakdowns are still easily absorbed.

LOS C: Provides for flow with speeds near the FFS of the freeway. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the

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<sup>6</sup> Op. Cit. B-51.



part of the driver. Minor incidents may still be absorbed, but the local deterioration in service quality will be significant. Queues may be expected to form behind any significant blockages.

LOS D: At this level speeds begin to decline with increasing flows, with density increasing more quickly. Freedom to maneuver within the traffic stream is seriously limited and drivers experience reduced physical and psychological comfort levels. Even minor incidents can be expected to create queuing, because the traffic stream has little space to absorb disruptions.

LOS E: Describes operation at capacity. Operations on the freeway at this level are highly volatile because there are virtually no useable gaps within the traffic stream, leaving little room to maneuver within the traffic stream. Any disruption to the traffic stream, such as vehicles entering from a ramp or changing lanes, can establish a disruption wave that propagates throughout the upstream traffic flow. At capacity, the traffic stream has ability for serious breakdown and substantial queuing. The physical and psychological comfort afforded to drivers is poor.

LOS F: Describes breakdown, or unstable flow. Such conditions exist within queues forming behind bottlenecks. Breakdowns occur for a number of reasons:

Traffic incidents can temporarily reduce the capacity of a short segment, so that the number of vehicles arriving at a point is greater than the number of vehicles that can move through it.

Points of recurring congestion, such as merge or weaving segments and lane drops, experience very high demand in which the number of vehicles arriving is greater than the number of vehicles that can be discharged.

In analyses using forecast volumes, the projected flow rate can exceed the estimated capacity of a given location.

#### Interrupted Traffic Flow Facilities

LOS A: Describes operations with a control delay of 10 s/veh or less and a volume-to- capacity ratio no greater than 1.0. This level is typically assigned when the volume-to- capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B: Describes operations with a control delay between 10 and 20 s/veh and a volume-to- capacity ratio no greater than 1.0. This level is typically assigned when the volume-to- capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A, with reasonably unimpeded travel between intersections.

LOS C: Describes operations with control delay between 20 and 35 s/veh and a volume-to- capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate. Individual cycle failures (i.e. one or more queued vehicles are not able to depart as a result of the insufficient capacity during the cycle) may begin to appear at this



level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping. May be longer queues and operations between locations may be more restricted.

LOS D: Describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. Travel speeds are about 40 percent below free flow speeds. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E: Describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent. Average travel speed is one-third of free flow speeds. The facility is generally at full capacity.

LOS F: Describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue. Extremely slow speeds with average delay of 80 seconds or more. Frequent stop and go conditions.

Caltrans policy defines LOS D as an acceptable operating condition when planning for future state facilities in urbanized areas. TCAG monitors traffic levels of service on the regional roads. An LOS of D or better is the goal on urban roads, and C on rural roads.”<sup>7</sup>

### ***“Public Transit***

An inexpensive and clean alternative to adding additional lanes to highways, streets and roads is to provide mass transit systems. Transit service in the County is currently provided by both local agencies and contracted private operators. Mass transportation is an economical mode of transportation. In Tulare County, all public mass transportation is provided by fixed route buses and dial-a-ride services that meet all reasonable needs in the region. Tulare County is not directly serviced by passenger rail facilities although it is accessible to Hanford’s Amtrak station by bus. Furthermore, inter-agency transfer points are becoming part of Tulare County's overall circulation system, in an effort to coordinate transit systems between adjacent agencies. TCAG will be leading the development of the first-ever Tulare County Regional Long Range Transit Plan. The plan will begin in late 2014. A clean alternative to adding additional lanes to highways, streets, and roads is to provide mass transit systems. Mass transportation provides transportation to large numbers of people to designated destinations by bus or train. In Tulare County, buses are the primary mode of public transportation. Fixed Route and Dial-A-Ride services are provided by Visalia Transit, Tulare Intermodal Express (TIME), Porterville Transit, Dinuba Transit, and

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<sup>7</sup> Op. Cit. B-7 through B-9.



Tulare County Area Transit (TCaT). The City of Woodlake also operates a Dial-a-Ride only service.

In 2016, Visalia Transit began the V-LINE- bus service between Visalia (from the transit center and Visalia Municipal Airport) to various locations in Fresno County (the Fresno Yosemite International Airport, California State University, Fresno, and Courthouse Park). Intercounty connections are also provided by Dinuba Transit (to Reedley) and TCaT (to Delano and Kingsburg).

Amtrak, California's only operating interregional passenger rail service, doesn't directly serve Tulare County. The closest Amtrak stations are in the Cities of Hanford and Corcoran in Kings County. However, Amtrak does coordinate with Visalia Transit to provide a feeder bus linking Visalia from the city's transit center with the Hanford Station in Kings County. Greyhound and Orange Belt Stages also operate in Tulare County.

Public transportation in Tulare County also takes the form of shared-ride companies, carpools, and vanpools. Fixed route transit is generally used in the more populated urban areas while demand responsive transit and blended paratransit are often used in rural areas and communities.

Several regional programs and service exist in Tulare County. All transit providers participate in the T-Pass, which provides unlimited monthly fixed route rides, College of Sequoias Student Pass, which provided unlimited fixed route rides for students with their paid student fees, and the Greenline call center.

Mass transportation has the capability to reduce a large number of single vehicle occupancy trips and reduce emissions. All fixed-route providing public transit agencies in Tulare County have fleets of Compressed Natural Gas (CNG) vehicles and CNG fueling stations. Porterville and Visalia have begun procurement of electric buses that are scheduled to operational in 2018.

Goals for all transit agencies are to integrate transit into the growth and development of their cities and communities. As developments and road designs occur, transit shall be integrated when possible. High and medium density neighborhoods, commercial, medical, educational, and employment areas can all benefit from transit. Arterials and transit friendly corridors should be identified in cities and communities to serve the anticipated population growth to become transit users or transit dependent. Transit Plans and General Plans shall determine the feasibility and steps to implement express bus service and bus rapid transit, where demands exist or will exist in the future.”<sup>8</sup>

“Social service transportation in Tulare County is being guided in a direction consistent with the Social Service Improvement Act of 1979 (AB 120). The law was enacted to promote the consolidation of such transportation services. The Act was established to improve efficient social service transportation by:

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<sup>8</sup> Op. Cit. B-51 and B-52.



- Combining purchasing of necessary equipment
- Ensuring adequate training of vehicle drivers for reduced insurance rates
- Centralized dispatching of vehicles
- Centralized maintenance of vehicles
- Centralized administration
- Identification and consolidation of all existing sources of funding.

In Tulare County, social service transportation is provided by the following: local transit agencies, demand responsive operators and city/county special programs, Veterans' programs, mental health organizations, programs for senior, and more. TCAG reaches out to transportation providers identified in the Coordinated Public Transit – Human Services Transportation Plan and ensures that calls for projects are communicated with social service providers. Many of these programs are funded and subsidized through state and federal grants.”<sup>9</sup>

“Public transportation provides an economical and efficient alternative for getting people to work, school and other chosen destinations. In Tulare County, buses are the primary mode of public transportation. Public transportation also takes the form of shared ride taxi, automobile and vanpools; dial-a-ride, and specialized handicapped accessible services. In Tulare County, social service transportation is provided by the following: local transit agencies, demand responsive operators and city/county special programs for senior citizens, mental health organizations and disabled citizens programs. These programs are funded and subsidized through State and federal grants, Local Transportation Funds (LTF), State Transit Assistance Funds (STAF), and local transportation sales tax revenues.”<sup>10</sup>

“Tulare County has two major regional highways, State Highway [State Route] 99 and 198. State Highway [State Route] 99 connects Tulare County to Fresno and Sacramento to the north and Bakersfield to the south. State Highway [State Route] 198 connects from U.S. Highway 101 on the west and continues eastward to Tulare County, passing through the City of Visalia and into Sequoia National Park. The highway system in the County also includes State highways, County-maintained roads, and local streets within each of the eight cities.”<sup>11</sup>

“Tulare County’s transportation system is composed of several State Routes, including three freeways, multiple highways, as well as numerous county and city routes. The county’s public transit system also includes two common carriers (Greyhound and Orange Belt Stages), the AMTRAK Service Link, other local agency transit and Para transit services, general aviation, limited passenger air service and freight rail service.”<sup>12</sup>

“Some prominent county roadways include, but are not limited to, Alta Avenue (Road 80), Caldwell Avenue/Visalia Road (Avenue 280), Demaree Road/Hillman Street (Road 108), Tulare Avenue (Avenue 232), Olive Avenue (Avenue 152), Spruce Road (Road 204), El Monte Way

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<sup>9</sup> Op. Cit. B-52 and B-53.

<sup>10</sup> Tulare County General Plan 2030 Update Background Report. Page 1-14.

<sup>11</sup> Ibid. 13-2.

<sup>12</sup> Op. Cit. 5-4.



(Avenue 416), Paige Avenue (Avenue 216), Farmersville Boulevard (Road 164), Road 192, and Road 152. Additionally, the highway system includes numerous county-maintained local roads, as well as local streets and highways within each of the eight cities and several unincorporated communities.”<sup>13</sup>

“Travel within Tulare County is a function of the size and spatial distribution of its population, economic activity, and the relationship to other major activity centers within the Central Valley (such as Fresno and Bakersfield) as well as more distant urban centers such as Los Angeles, Sacramento, and the Bay Area. In addition, there is considerable travel between the northwest portions of Tulare County and southern Fresno County and travel to/from Kings County to the west. Due to the interrelationship between urban and rural activities (employment, housing, services, etc.) and the low average density/ intensity of land uses, the private automobile is the dominant mode of travel for residents in Tulare County.”<sup>14</sup>

“Public transportation provides an economical and efficient alternative for getting people to work, school and other chosen destinations. In Tulare County, buses are the primary mode of public transportation. Public transportation also takes the form of shared ride taxi, automobile and vanpools; dial-a-ride, and specialized handicapped accessible services. In Tulare County, social service transportation is provided by the following: local transit agencies, demand responsive operators and city/county special programs for senior citizens, mental health organizations and disabled citizens programs. These programs are funded and subsidized through State and federal grants, Local Transportation Funds (LTF), State Transit Assistance Funds (STAF), and local transportation sales tax revenues.”<sup>15</sup>

### Airport

“There are nine public use airports in Tulare County. These include six publicly owned and operated facilities (Porterville Municipal, Sequoia Field, Tulare Municipal [Mefford Field], Visalia Municipal, Woodlake, and Harmon Field [currently closed]) and three privately owned and operated airports (Alta Airport [currently closed], Thunderhawk Field, and Eckert Field). Badger Field is under consideration for Federal Aviation Administration (FAA) recertification as a restricted private airfield (as of August 2006).”<sup>16</sup>

### Design for Emergency Access

According to § 21060.3 and § 15359 of the CEQA Guidelines, an “Emergency” means a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. “Emergency” includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage. A Proposed Project could potentially generate impacts through inadequate design for emergency access.

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<sup>13</sup> Op. Cit. 5-7.

<sup>14</sup> Op. Cit. 5-4.

<sup>15</sup> Op. Cit. 1-14.

<sup>16</sup> Op. Cit. 13-2.



### Alternative Transportation/Tulare County Area Transit (TCaT)

The nearest fixed route service area is in the unincorporated community of Traver approximately five (5) miles south of the Project site. Traver is part of Route 50 (Dinuba-London-Traver-Delft Colony Route). Although fixed-route service is not available within the proposed Project site, demand responsive (Dial-A-Ride) service is available to transport General fare riders to the nearest route. Also, TCaT provides a summary of how their fixed route service is available in their “How to Ride” information which includes topics such as TCaT Stops, Waiting for the Bus, Paying your Fare, Bicycles on Buses, Service Animals, Luggage and Strollers, and Lost and Found.<sup>17</sup> “Tulare County Area Transit (TCaT) Dial-A-Ride Service is a coordinated and accessible “curb to curb” service designed to provide comparable Para transit service for ADA (Americans with Disabilities Act) certified individuals with disabilities that prevent them from riding the TCaT fixed-route buses. In addition (TCaT) Dial-A-Ride provides same day service to the General Public (Non-ADA) passengers based on space availability.”<sup>18</sup>

### Traffic Impact Study Requirement

As it was anticipated that the proposed Project would generate more than 100 peak hour trips, it was determined that a traffic impact study was required. “The following criterion is a starting point in determining when a TIS is needed. When a project:

1. Generates over 100 peak hour trips assigned to a State highway facility
2. Generates 50 to 100 peak hour trips assigned to a State highway facility – and, affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS “C” or “D”).
3. Generates 1 to 49 peak hour trips assigned to a State highway facility – the following are examples that may require a full TIS or some lesser analysis<sup>4</sup> :
  - a. Affected State highway facilities experiencing significant delay; unstable or forced traffic flow conditions (LOS “E” or “F”).
  - b. The potential risk for a traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.).
  - c. Change in local circulation networks that impact a State highway facility (i.e., direct access to State highway facility, a non-standard highway geometric design, etc.).”<sup>19</sup>

## **REGULATORY SETTING**

### ***Federal Agencies & Regulations***

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<sup>17</sup> Tulare County Area Transit “How To Ride” accessed June 2019 at: <https://ridetcat.org/how-to-ride/>

<sup>18</sup> Op. Cit. Dial-A-Ride accessed June 2019 at: <https://ridetcat.org/dial-a-ride/ada-program/>

<sup>19</sup> Guide for the Preparation of Traffic Impact Studies, California Department of Transportation, December 2002. Page 2.  
[http://www.dot.ca.gov/hq/tpp/offices/ocp/igr\\_ceqa\\_files/tisguide.pdf](http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf)



None that apply to the proposed Project.

### ***State Agencies & Regulations***

#### **Caltrans: Transportation Concept Reports**

Caltrans has prepared a number concept reports for State Routes, Interstate Routes, and U.S. Routes. Tulare County is located in Caltrans District 6. As identified in the Project Traffic Study, “The proposed Project will cause a significant impact by decreasing the LOS at the intersection of Avenue 280 and the SR 99 southbound ramps to E during the a.m. peak hour.”<sup>20</sup> Additional elaboration is included at the discussion of Item 17 a) (beginning on page 3.17-16 of this Chapter

#### **Caltrans Guide for the Preparation of Traffic Impact Studies**

“The California Department of Transportation (Caltrans) has developed this "Guide for the Preparation of Traffic Impact Studies" in response to a survey of cities and counties in California. The purpose of that survey was to improve the Caltrans local development review process (also known as the Intergovernmental Review/California Environmental Quality Act or IGR/CEQA process). The survey indicated that approximately 30 percent of the respondents were not aware of what Caltrans required in a traffic impact study (TIS).”<sup>21</sup> As identified on page one of the Traffic Study for the Project, the scope of the study is based on the guidelines contained in Caltrans’ Guide for the Preparation of Traffic Impact Studies.

### ***Local Policy & Regulations***

#### **Tulare County Transportation Control Measures (TCM)**

“Transportation Control Measures (TCM) are designed to reduce vehicle miles traveled, vehicle idling, and/or traffic congestion in order to reduce vehicle emissions. Currently, Tulare County is a nonattainment region under the Federal Clean Air Act (CAA) and the California Clean Air Act (CCAA). Both of these acts require implementation of TCMs. These TCMs for Tulare County are as follows:

- Rideshare Programs;
- Park and Ride Lots;
- Alternate Work Schedules;
- Bicycle Facilities;
- Public Transit;
- Traffic Flow Improvement; and

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<sup>20</sup> “Traffic Impact Study Proposed Concrete and Asphalt Batch Plant Avenue 280 West of State Route 99 Tulare County, California” (TIS). Page 15. September 2018. Prepared by Peters Engineering Group and included in Appendix “F” of this DEIR.

<sup>21</sup> Guide for the Preparation of Traffic Impact Studies, California Department of Transportation, December 2002. Page ii.



➤ Passenger Rail and Support Facilities.”<sup>22</sup>

Tulare County Association of Governments (TCAG)

“The circulation system in Tulare County plays a significant role in the economy by moving goods and people. A rural region, Tulare County is dependent on local highways, streets, roads, and railways to meet basic transportation needs. Goods movement is specifically dependent on road conditions and capacity.”<sup>23</sup> “TCAG’s outreach for the 2018 Regional Transportation Plan included, for the first time, the establishment of a Regional Transportation Plan Roundtable. The RTP Roundtable membership includes 27 positions from varied sectors of the region, including, but not limited to, representatives of Affordable Housing, Disabled Access, Agriculture, Public Transportation, Goods Movement, Building and Development...”<sup>24</sup> “Major generators of goods movement in the region include agriculture, but increasingly, a diversified range of raw materials and products are also generating trips on the network and rail system. In an agriculturally based economy, much of the goods movement would be “seasonal”; in a diversified economy, the flow of goods is year round. The impacts from heavy duty trucks are disproportionately higher within the San Joaquin Valley. High truck volumes such as those found in Tulare County cause higher maintenance costs due to reduced pavement life. Level-of-service (LOS) is also reduced due to increased truck proportions. Safety is reduced due to conflicts with passenger vehicles as well as pavement failures. Other types of economic losses in the form of damaged produce occur as a result of congestion, diminished air quality and pavement failure. All of these factors, as well as others, lead to a strong case of increased funding for maintenance and rehabilitation, as well as geometric and capacity improvements to accommodate truck operations.”<sup>25</sup>

The specific RTP policies that apply to the proposed Project are as follows:

**“COMPREHENSIVE**

**GOAL: PROVIDE AN EFFICIENT, INTEGRATED, MULTI-MODAL TRANSPORTATION SYSTEM FOR THE MOVEMENT OF PEOPLE AND GOODS THAT ENHANCES THE PHYSICAL, ECONOMIC, AND SOCIAL ENVIRONMENT IN THE TULARE COUNTY REGION.**

**Objective: Encourage and support a connected and multi-modal regional circulation network that is convenient, safe, and efficient.**

**Policies:**

1. Encourage jurisdictions in Tulare County to consider bicycle lanes, public transit, transit-oriented and mixed-use development, pedestrian networks, rail

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<sup>22</sup> Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report. Page 3.2-2.

<sup>23</sup> 2018 Regional Transportation Plan & Sustainable Communities Strategy, Tulare County Association of Governments (TCAG). Page B-1. Accessed June 2019 at: <http://www.tularecog.org/RTPSCS/ActionElement.pdf>.

<sup>24</sup> Ibid. A-3. Accessed June 2018 at: <http://www.tularecog.org/RTPSCS/PolicyElement.pdf>

<sup>25</sup> Ibid. B-65. Accessed June 2019 at: <http://www.tularecog.org/RTPSCS/PolicyElement.pdf>



and other complete streets development during updates of general plans and other local planning processes.

2. Implement a Complete Streets Program whereby agencies will prepare plans to accommodate all transportation users, including pedestrians, bicyclists, transit riders, and motor vehicle operators and riders, and utilize existing revenue and other funding sources to coordinate with local agencies to implement those plans as aggressively as feasible.
3. Provide for continued coordination and evaluation of the planned circulation system among cities and the county.
4. Make existing road and bridge maintenance a high priority.”<sup>26</sup>

### ***“GOODS MOVEMENT***

**GOAL: PROVIDE A TRANSPORTATION SYSTEM THAT EFFICIENTLY AND EFFECTIVELY TRANSPORTS GOODS TO, FROM, WITHIN, AND THROUGH TULARE COUNTY.**

**Objective:** Encourage the interaction of truck, rail, and air freight transportation.

**Policies:**

1. Work with Caltrans and adjacent regions in the development of intermodal corridors.
2. Include comprehensive goods movement planning in the RTP.
3. Implement the San Joaquin Valley Goods Movement Plan.

**GOAL: IMPROVE GOODS MOVEMENT WITHIN THE REGION TO INCREASE ECONOMIC VITALITY, MEET THE GROWING NEEDS OF FREIGHT AND PASSENGER SERVICES, AND IMPROVE TRAFFIC SAFETY, AIR QUALITY, AND OVERALL MOBILITY.**

**Objective:** Support an efficient truck transportation system.

**Policy:**

1. Give special consideration to transportation projects that improve air quality and the operational efficiency of goods movement.
2. Explore the possibility of a zero emission freight corridor on SR 99 utilizing a catenary hybrid-electric system through a Valley-wide feasibility study.”<sup>27</sup>

### ***“REGIONAL ROADS AND CORRIDORS***

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<sup>26</sup> Ibid. A-3 and A-4. At: <http://www.tularecog.org/RTPSCS/PolicyElement.pdf>

<sup>27</sup> Op. Cit. A-10 and A-11.



**GOAL: PRESERVE AND ENHANCE REGIONAL TRANSPORTATION ROADS AND CORRIDORS.**

**Objective:** Coordinate local and regional planning of new development that minimizes and/or mitigates impacts along regional corridors.

**Policy:**

1. Support development that identifies and implements transportation network improvements to maintain or improve the existing transportation system condition and efficiency.

**Objective:** Evaluate and consider current and future congestion conditions on the regional road network when investing in the transportation system.

**Policies:**

1. Support improvements of critical segments and interchanges along the State Highway System.
2. Encourage frontage roads along state highways, where appropriate.
3. Support improvements on regional roads to include safe accessibility for active modes of transportation.

**Objective:** Consider safety, efficiency, and connectivity when investing in the regional road network.

**Policies:**

1. Improve safety and capacity of vital east-west corridors.
2. Encourage restriction of direct access along regionally significant corridors by limiting the spacing of signalized intersections to 1/2-mile intervals and interchanges to one mile

**Tulare County General Plan Policies**

The Tulare County General Plan has a number of policies that apply to projects within County of Tulare. General Plan policies that relate to the proposed Project are listed below.

**LU-5.5 Access** - The County shall locate industrial development where there is access from collector or arterial roads, and where industrial/heavy commercial traffic is not routed through residential or other areas with uses not compatible with such traffic.”<sup>28</sup>

**LU-7.4 Streetscape Continuity** - The County shall ensure that streetscape elements (e.g., street signs, trees, and furniture) maintain visual continuity and follow a common image for each community.

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<sup>28</sup> Op. Cit. A-13



**TC-1.13 Land Dedication for Roadways and Other Travel Modes** - As required by the adopted County Improvement Standards, the County shall require, where warranted, an irrevocable offer of dedication to the right-of-way for roadways and other travel modes, as part of the development review process.

**TC-1.14 Roadway Facilities** - As part of the development review process, new development shall be conditioned to fund, through impact fees, tonnage fees, and/or other mechanism, the construction and maintenance of roadway facilities impacted by the project. As projects or locations warrant, construction or payment of pro-rata fees for planned road facilities may also be required as a condition of approval.

**TC-1.15 Traffic Impact Study** - The County shall require an analysis of traffic impacts for land development projects that may generate increased traffic on County roads. Typically, applicants of projects generating over 100 peak hour trips per day or where LOS “D” or worse occurs, will be required to prepare and submit this study. The traffic impact study will include impacts from all vehicles, including truck traffic.

**TC-1.16 County Level Of Service (LOS) Standards** - The County shall strive to develop and manage its roadway system (both segments and intersections) to meet a LOS of “D” or better in accordance with the LOS definitions established by the Highway Capacity Manual.

## **IMPACT EVALUATION**

### **Would the project:**

- a) **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Project Impact Analysis:

*Less Than Significant Impact With Mitigation*

As indicated in the TIS, proposed projects typical rely on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10<sup>th</sup> Edition, to estimate the anticipated number or trips associated with a project. However, ITE does not contain trip generation information for concrete batch plants, hot-mixed asphalt plants, or production of recycled base. Therefore, traffic consultant Peters Engineering Group (consultant) estimated trip generation based on the volume of material to be hauled and other Project-specific characteristics. “Table 3 [of the TIS (included in Appendix “F”) and **Table 3.17-1** in this document] presents the various types of vehicles expected to access the Project site. The type of material to be hauled, the vehicle capacity, the annual number of trips, and the average weekday trips are also



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presented.”<sup>29</sup> **Table 3.17-2** is an extrapolation of the total number of trucks from **Table 3.17-2** [Table 3 of the TIS].

<b>Table 3.17-1 Annual Project Trip Generation<sup>30</sup></b>							
Vehicle Type	Truck Axles	Capacity	Approx. Material per Yr.	Annual Trips		Avg. Weekday Trips*	
				Entering	Exiting	Entering	Exiting
Employee automobiles	n/a	n/a	n/a	4,680	4,680	15	15
Ready Mix Concrete Trucks	4	10 cu. yds.	100,000 cubic yards (200,000 tons)	10,000	10,000	40	40
Aggregate Trucks (incoming sand and gravel for concrete)	≥5	25 tons	160,000 tons	6,400	6,400	26	26
Cement Delivery Trucks	≥5	25 tons	28,000 tons	1,120	1,120	5	5
Recycled Base Trucks (sales)	≥5	25 tons	30,000 tons	1,200	1,200	5	5
Recycled Material End Dumps (Incoming material)	≥5	22 tons	22,500	1,023	1,023	4	4
Recycled Material (Incoming material)	3	12 tons	7,500 tons	625	625	3	3
HMA Trucks	≥5	25 tons	150,000 tons	6,000	6,000	24	24
Aggregate Trucks (incoming sand and gravel for HMA)	≥5	25 tons	125,000 tons	4,800	4,800	19	19
Oil Delivery Trucks	≥5	7,500 gallons	1,664,335 gallons	222	222	1	1
Propane Delivery Trucks	≥5	11,000 gallons	450,000 gallons	41	41	0	0
Fuel Trucks (diesel for on-site vehicle operations)	≥5			26	26	0	0
Outside Services	2			250	250	1	1
Other Materials/Services	2			250	250	1	1
<b>TOTAL:</b>				<b>36,637</b>	<b>36,637</b>	<b>144</b>	<b>144</b>

*\* Divided over 50 weeks per year and five days per week.*

<b>Table 3.17-2 ANNUAL PROJECT TRIP GENERATION TWO-TO-FIVE AXLE TRUCKS<sup>31</sup></b>				
No. of Axles	Annual Trips		Avg. Weekday Trips*	
	Entering	Exiting	Entering	Exiting
Two axle trucks	500	500	2	2
Three axle trucks	625	625	3	3
<b>Sub-Total: Two and Three axle trucks</b>	1,125	1,125	5	5
Four axle trucks	10,000	10,000	40	40
Five axle trucks	20,832	20,832	84	84
<b>Sub-Total: Four and Five axle trucks</b>	30,832	30,832	124	124
<b>TOTAL TRUCKS</b>	<b>31,957</b>	<b>31,957</b>	<b>138</b>	<b>138</b>

*\* Divided over 50 weeks per year and five days per week.*

<sup>29</sup> “Traffic Impact Study, Proposed Concrete and Asphalt Batch Plant Avenue 280 West of State Route 99 Tulare County, California” (TIS) report September 2018. Page 5. Prepared by consultant Peters Engineering Group and included in Appendix “F” of this DEIR.

<sup>30</sup> Op. Cit. Table 3 Annual Project Trip Generation. Page 6. (Revised 9/15/19).

<sup>31</sup> Op. Cit. Extrapolation from Table 3.



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“Table 4 [of the TIS and **Table 3.17-3** in this document] presents estimates of the maximum peak hour trips estimated to be generated by the Project.”<sup>32</sup>

**Table 3.17-4** is an extrapolation of the total number of trucks from Table 4 of the TIS.

As noted earlier, the peak hour of adjacent street traffic was determined to be from 7:00 A.M. to 9:00 A.M. and 4:00 P.M. to 6:00 P.M. on a weekday while school was in session. The counts included pedestrians, bicycles, and heavy vehicles.<sup>33</sup>

<b>TABLE 3.17-3<sup>34</sup></b>					
<b>Peak Hour Project Trip Generation – Maximum Production*</b>					
<b>Vehicle Type</b>	<b>Axles<sup>35</sup></b>	<b>A.M. Peak Hour</b>		<b>P.M. Peak Hour</b>	
		<b>Entering</b>	<b>Exiting</b>	<b>Entering</b>	<b>Exiting</b>
Employee automobiles	n/a	00**	00**	2	10
Ready Mix Concrete Trucks	4	16	16	8	8
Aggregate Trucks (incoming sand and gravel for concrete)	≥5	10	10	0	5
Cement Delivery Trucks	≥5	2	2	0	1
Recycled Base Trucks (sales)	≥5	2	2	1	1
Recycled Material End Dumps (Incoming material)	≥5	2	2	1	1
Recycled Material (Incoming material)	3	1	1	0	0
HMA Trucks	≥5	10	10	5	5
Aggregate Trucks (incoming sand and gravel for HMA)	≥5	8	8	0	4
Oil Delivery Trucks	≥5	0	0	0	0
Propane Delivery Trucks	≥5	0	0	0	0
Fuel Trucks (diesel for on-site vehicle operations)	≥5	0	0	0	0
Outside Services	2	1	1	0	0
Other Materials/Services	2	1	1	0	0
<b>TOTAL:</b>		<b>53</b>	<b>53</b>	<b>17</b>	<b>35</b>
<p>* Maximum trips per hour are estimated by multiplying the average weekday trips in Table 3 by two (to estimate a very busy day) and then assuming that 20 percent of the trips on that day occur during the a.m. peak hour and 10 percent of the trips on that day occur during the p.m. peak hour, with the exception that most deliveries to the site are not expected to occur late in the day.</p> <p>** Assumes employees arrive before 7:00 a.m.</p>					

<sup>32</sup> Op. Cit. 5

<sup>33</sup> Op. Cit. 6.

<sup>34</sup> Op. Cit. Table 4 Annual Project Trip Generation. Page 7. (Revised 9/15/19).

<sup>35</sup> Op. Cit. Extrapolated from Table 4.



<b>Table 3.17-4</b> <b>PEAK HOUR PROJECT TRIP GENERATION – MAXIMUM</b> <b>PRODUCTION TWO-TO-FIVE AXLE TRUCKS<sup>36</sup></b>				
<b>No. of Axles</b>	<b>A.M. PEAK HOUR</b>		<b>P.M. PEAK HOUR</b>	
	Entering	Exiting	Entering	Exiting
Two axle trucks	0	0	0	0
Three axle trucks	2	2	0	0
<b>Sub-Total:</b> Two and Three axle trucks	2	2	0	0
Four axle trucks	16	16	8	8
Five axle trucks	31	31	7	8
<b>Sub-Total:</b> Four and Five axle trucks	47	47	15	16
<b>TOTAL TRUCKS</b>	<b>49</b>	<b>49</b>	<b>15</b>	<b>16</b>

“Passenger car equivalents (PCE) represent the number of passenger cars displaced by a single heavy vehicle (vehicles with more than four wheels touching the pavement during normal operations) under certain roadway, traffic, and control conditions. The use of PCEs compensates for the operational characteristics of heavy vehicles (e.g., slower acceleration and deceleration than passenger vehicles) as well as the roadway space displaced. The Transportation Research Board *Highway Capacity Manual, 6<sup>th</sup> Edition*, identifies a PCE factor of 2.0 for a default mix of trucks in level terrain on highway segments. A greater PCE factor is reasonable for 25-ton capacity trucks because these trucks are long, heavy, accelerate more slowly, and require more distance to decelerate. For purposes of peak hour operations, a PCE of 3.0 is applied for the 25-ton capacity trucks, a PCE of 2.0 is applied for ready-mix trucks and three-axle trucks, and a PCE of 1.5 is applied for two-axle trucks. Table 5 [of the TIS] presents a summary of the peak hour Project trips in terms of PCE. Pass-by trips and internal capture reductions are negligible for this type of project and are not applied to the Project trip generation.”<sup>37</sup>

“The distribution of Project trips was estimated based on the locations of complementary land uses, available routes, and engineering judgment. The percentage distribution of Project trips is presented in the attached Figure 5 [of the TIS], Project Trip Distribution Percentages. The peak-hour Project traffic volumes presented in Table 5 [of the TIS] were assigned to the adjacent road network in accordance with the trip distribution percentages described above. The peak-hour Project traffic volumes are presented in Figure 6 [of the TIS], A.M. and P.M. Peak Hour Project Traffic Volumes. The peak-hour Project traffic volumes in terms of PCE are presented in Figure 7 [of the TIS], A.M. and P.M. Peak Hour Project Traffic Volumes – Passenger Car Equivalents.”<sup>38</sup>

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<sup>36</sup> Op. Cit. Extrapolated from Table 4.

<sup>37</sup> Op. Cit. 5.

<sup>38</sup> Op. Cit. 8.



The TIS contains analyses for existing, existing-plus-project traffic volumes, cumulative Year 2040 traffic volumes, intersections, (operational and queuing), and traffic signal volume warrants in pages 8 through 13. The TIS concludes, “The intersection analyses indicate that the study intersections are currently operating at acceptable levels of service with adequate storage capacity for the calculated 95<sup>th</sup>-percentile queues.”<sup>39</sup>

The Existing-Plus-Project Conditions analysis contained in the TIS states, “The existing-plus-Project conditions analyses represent conditions that would occur after construction of the Project in the absence of other pending projects and regional growth. This scenario isolates the specific impacts of the Project. The results of the analyses indicate the Project would cause the intersection of Avenue 280 and the SR 99 southbound ramps to operate at LOS E during the a.m. peak hour. This is a significant impact. Interchange reconstruction is in the design phase and is programmed with an identified funding source. The pending reconstruction is expected to mitigate the significant impact. With implementation of the interchange reconstruction the intersection would operate at acceptable levels of service. Tables 13 and 14 [of the TIS] present the results of mitigated analyses. The mitigated intersection analysis sheets are included in Appendix E [of the TIS]. It is noted that the impact will remain significant and unavoidable until the interchange reconstruction is complete in approximately 2024. The other study intersections will continue to operate at acceptable levels of service with adequate storage capacity for the calculated 95<sup>th</sup>-percentile queues.”<sup>40</sup>

The cumulative traffic analysis contained in the TIS concludes, “The year 2040 with-Project conditions analyses include the assumption that the Project site is developed with the proposed Project and that reconstruction of the SR 99/Caldwell Avenue (Avenue 280) interchange has been completed. This scenario estimates the long-term cumulative impacts. The Project may be responsible for an equitable share of the interchange improvements if the interchange is not fully funded considering the significant impacts identified in the existing-plus-Project scenario.

The study intersections are expected to operate at acceptable levels of service with the proposed Project and interchange reconstruction through the year 2040.”<sup>41</sup>

The Executive Summary contained in the TIS provides the following; “Generally-accepted traffic engineering principles and methods were employed to estimate the amount of traffic expected to be generated by the Project, to analyze the existing traffic conditions, and to analyze the traffic conditions projected to occur in the future. The study intersections are currently operating at acceptable levels of service with adequate storage capacity for the calculated 95<sup>th</sup>-percentile queues. The proposed Project will cause a significant impact by decreasing the LOS at the intersection of Avenue 280 and the SR 99 southbound ramps to E during the a.m. peak hour. Tulare County and the Tulare County Association of Governments have initiated an interchange reconstruction project at the SR 99/Caldwell Avenue (Avenue

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<sup>39</sup> Op. Cit. 13.

<sup>40</sup> Op. Cit. 13.

<sup>41</sup> Op. Cit. 13 and 14.



280) interchange that will mitigate the Project impact to a less than significant level. Caltrans is managing the project through a reimbursement agreement and plans to circulate a Draft Environmental Impact Report (DEIR) in October/November of 2018. The interchange reconstruction is programmed and has an identified funding source. The reconstruction is planned to be complete by 2024. The Project impact would remain significant and unavoidable until the interchange reconstruction is complete. The study intersections are expected to operate at acceptable levels of service with the proposed Project and interchange reconstruction through the year 2040. To mitigate its share of the impacts to the interchange, the Project may be responsible for an equitable share of any unfunded portions of the interchange project.”<sup>42</sup> **Table 3.17-5** shows the volume of trips expected to be generated by the proposed Project at the SR 99/Avenue 280 (Caldwell Avenue). As indicated in the TIS, “It is anticipated that construction costs and interchange volumes to be presented in SR 99/Caldwell Avenue [Avenue 280] interchange reconstruction DEIR will be utilized by Caltrans to develop equitable share calculations resulting in a per-trip fee that may be applied equitably to all development projects contributing trips to the interchange. Table 15 [of the TIS, **Table 3.17-5** in this DEIR] presents the volume of trips expected to be generated by the proposed Project at the interchange.”

<b>Table 3.17-5</b>		
<b>Project Trip Trace Values – SR 99/Avenue 280 Interchange<sup>43</sup></b>		
<u>Movement</u>	<u>A.M. Peak Hour Volume</u>	<u>P.M. Peak Hour Volume</u>
EB Caldwell to NB 99 19 12	19	12
EB Caldwell past 99 11 7	11	7
EB Caldwell to SB 99 19 12	19	12
WB Caldwell to NB 99 0 0	0	0
EB Caldwell past 99 11 3	11	3
WB Caldwell to SB 99 0 0	0	0
SB 99 to EB Caldwell 0 0	0	0
SB 99 to WB Caldwell 19 5	19	5
NB 99 to EB Caldwell 0 0	0	0
NB 99 to WB Caldwell	19	6

Implementation of Mitigation Measure 17-1 and conditions of approval would mitigate the project to ***Less Than Significant With Mitigation.***

Mitigation:

***See Mitigation Measures 17-1 and 17-2***

The Project will contribute to deterioration of the structural condition of Avenue 280 over time. As such, Public Works staff and the Applicant agree that a Condition of Approval will be utilized to properly maintain this segment of Avenue 280. It is anticipated that 90% of the heavy-duty trucks will utilize this segment of Avenue 280 between the entry/exit point of the project and SR 99, and 10% of the heavy-duty trucks will utilize this segment Avenue 280 west of the entry/exit point of the project. It is estimated that the Project will contribute

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<sup>42</sup> Op. Cit. Executive Summary. Note: Caltrans has not completed/released Draft EIR noted in this citation as of the release date of this DEIR.

<sup>43</sup> Op. Cit. 15.



approximately 47% of all traffic utilizing this segment of Avenue 280. Therefore, in consultation with the County, the Project Applicant will pay their fair share towards the necessary maintenance based on a proportionate share calculation based on vehicle impact to the structural section (through the roadway ESAL of the Project) resulting in an estimate that calculates the Applicant's fair share of maintenance costs for this roadway segment between SR 99 and the Tulare/Kings County line. This shall be made a Condition of Approval of the Project.

**17-1** The Project Applicant will be responsible for paying an equitable share fee as determined between the Applicant and Caltrans based on the trips identified in Table 3.17-1 or through another methodology agreed upon by Applicant and Caltrans. Applicant and Caltrans will determine terms and timing of the equitable share.

**17-2** The Project Applicant will pay their fair share towards the necessary maintenance based on a proportionate share calculation based on vehicle impact to the structural section for this roadway segment between SR 99 and the Tulare/Kings County line. This shall be made a Condition of Approval of the Project.

Conclusion:

***Less Than Significant Impact With Mitigation***

Potential Project-specific impacts related to this Checklist item are ***Less Than Significant With Mitigation***.

Cumulative Impact Analysis:

***Less Than Significant Impact With Mitigation***

The geographic area of this cumulative analysis is Tulare County. As stated in the TIS, "The Tulare County Association of Governments (TCAG) maintains a travel model that is typically used to forecast future traffic volumes. An increment method was utilized to forecast traffic volumes for future conditions by determining the growth projected by the model between the base year and the analysis year. This growth is added to the existing traffic volumes and the result is the predicted future traffic volume on the road segment. The TCAG travel model data output is included in the attached Appendix B [of the TIS]. In some cases, the travel model may project growth that is equivalent to less than one percent per year. For purposes of this study, a minimum annual growth rate of one percent was maintained for traffic traveling west of SR 99. Traffic expected to be generated by the Sequoia Gateway Commerce Park (SGCP) project east of SR 99 was obtained from the SGCP DEIR and included in the cumulative traffic volume projections.

Future turning movements forecasts were based on the methods presented in Chapter 8 of the Transportation Research Board National Cooperative Highway Research Program Report 255 entitled "*Highway Traffic Data for Urbanized Area Project Planning and Design*."

The cumulative year 2040 traffic volumes with the Project are presented in Figure 10 [in the TIS], Year 2040 Cumulative With-Project Peak-Hour Traffic Volumes. The cumulative year



2040 traffic volumes with the Project PCE volumes are presented in Figure 11 [in the TIS], Year 2040 Cumulative With-Project Peak-Hour Traffic Volumes – Passenger Car Equivalents.”<sup>44</sup>

“The year 2040 with-Project conditions analyses include the assumption that the Project site is developed with the proposed Project and that reconstruction of the SR 99/Caldwell Avenue (Avenue 280) interchange has been completed. This scenario estimates the long-term cumulative impacts. The Project may be responsible for an equitable share of the interchange improvements if the interchange is not fully funded considering the significant impacts identified in the existing-plus-Project scenario. The study intersections are expected to operate at acceptable levels of service with the proposed Project and interchange reconstruction through the year 2040.”<sup>45</sup> Therefore, as an abundance of caution, and if necessary, the implementation of **Mitigation Measures 17-1** and **17-2** would ensure the Project’s contribution (i.e., equitable share) of interchange improvements would result in a *Less Than Significant Impact With Mitigation*.

Mitigation: *Mitigation Measures 17-1 and 17-2.*

Conclusion: *Less Than Significant Impact With Mitigation*

Potential Project-specific and cumulative impacts related to this Checklist item are *Less Than Significant With Mitigation*.

**b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

Project Impact Analysis: *Less Than Significant Impact*

The County’s General Plan Policy: TC-1.16 Tulare County LOS Standards calls for an LOS of “D” or better. Caltrans endeavors to maintain a target LOS at the transition between LOS “C” and LOS “D” on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing [Measure of Effectiveness] MOE should be maintained. As noted in the TIS, “The study intersections are currently operating at acceptable levels of service with adequate storage capacity for the calculated 95<sup>th</sup>-percentile queues. The proposed Project will cause a significant impact by decreasing the LOS at the intersection of Avenue 280 and the SR 99 southbound ramps to E during the a.m. peak hour. Tulare County and the Tulare County Association of Governments have initiated an interchange reconstruction project at the SR 99/Caldwell Avenue (Avenue 280) interchange that will mitigate the Project impact to a less than significant level. Caltrans is managing the

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<sup>44</sup> Op. Cit. 9

<sup>45</sup> Op. Cit. 13-14.



project through a reimbursement agreement and plans to circulate a Draft Environmental Impact Report (DEIR) in October/November of 2018.<sup>46</sup> The interchange reconstruction is programmed and has an identified funding source. The reconstruction is planned to be complete by 2024. The impact would remain significant and unavoidable until the interchange reconstruction is complete. The study intersections are expected to operate at acceptable levels of service with the proposed Project and interchange reconstruction through the year 2040.<sup>47</sup> Additionally, the 2018 Regional Transportation Plan & Sustainable Communities Strategy, adopted by the TCAG, notes that; “The Cities of Visalia, Tulare, Dinuba and Lindsay have the most congested corridors (or segments of corridors) in Tulare County and are candidates for TSM strategies.”<sup>48</sup> Although the Project site is located just south of the City of Visalia’s sphere of influence along Avenue 280 (and approximately two miles west of the City’s western city limits), the Proposed Project would not have an immediate impact on high congestion areas of Tulare County as 80 percent of the trips from the site would use SR 99 (70%) to travel north or south, while 10 percent would use Avenue 280 to travel toward Kings County. As noted earlier, the Project may be responsible for an equitable share of the interchange improvements if the interchange is not fully funded considering the significant impacts identified in the existing-plus-Project scenario. If necessary, **Mitigation Measures 17-1** and **17-2** may be implemented for the Project to mitigate its share of impacts to the interchanged. Potential Project-specific impacts related this Checklist Item will be *Less Than Significant With Mitigation*.

Cumulative Impact Analysis: *Less Than Significant Impact With Mitigation*

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the TIS, Tulare County General Plan 2030 Update, Tulare County General Plan 2030 Update Background Report, Tulare County General Plan 2030 Update RDEIR, and the TCAG 2018 Regional Transportation Plan.

As noted earlier, the proposed Project will cause a significant impact by decreasing the LOS at the intersection of Avenue 280 and the SR 99 southbound ramps to LOS E during the a.m. peak hour. However, due to its location and traffic distribution (i.e., proximity to SR 99 and 70% of the trips would head either north (35%) or south (35%) on SR 99, plus 10% would head west toward Kings County), the Project would not have an immediate impact on high congestion areas of Tulare County. Further, with completion of the SR 99/Avenue 280 (Caldwell Avenue) interchange reconstruction project, and possible implementation of **Mitigation Measure 17-1** and **17-2**, a *Less Than Significant Cumulative Impact With Mitigation* related to this Checklist Item will occur.

Mitigation: *See Mitigation Measure 17-1 and 17-2.*

Conclusion: *Less Than Significant Impact With Mitigation*

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<sup>46</sup> Note: Caltrans has not completed/released Draft EIR noted in this citation as of the release date of this DEIR.

<sup>47</sup> Op. Cit. 15.

<sup>48</sup> Tulare County Association of Governments “2018 Regional Transportation Plan and Sustainable Communities Strategy.” Action Element Page B-48.



As noted earlier, potential Project-specific and cumulative impacts related to this Checklist Item are ***Less Than Significant Impact With Mitigation***.

**c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?**

Project Impact Analysis: ***No Impact***

The nearest airport to the Project site is the Visalia Municipal Airport located approximately one mile northeast. The Project site is near (that is, just west), but outside, Airport Zone, Zone 6-Traffic Pattern Zone which represents the lowest level of hazard for areas within the Airports Safety Zones.<sup>49</sup> The proposed Project site contains an existing structure which will remain the tallest structure on the site. As such, all other proposed uses (e.g., materials piles, silos, storage tanks, etc.) will not exceed the height of the existing structure and would not pose a risk to the Traffic Pattern Zone. The proposed use is not dis-similar to other existing industrial land uses located within Safety Zone 6 of Visalia Municipal Airport and will not result in any increase in traffic levels or a change in location that result in substantial safety risks. Therefore, ***No Project-specific impact*** will occur as a result of the proposed Project.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, Tulare County 2030 General Plan EIR, and the Tulare County Comprehensive Airport Land Use Plan.

Mitigation: ***None Required.***

Conclusion: ***No Impact***

As noted earlier, the nearest airport is the Visalia Municipal Airport located approximately one mile northeast of the Project site. However, because there are no Project-specific impacts, there will also be ***No Project-specific or Cumulative Impacts*** related to this Checklist Item.

**d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

Project Impact Analysis: ***Less Than Significant Impact***

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<sup>49</sup> Tulare County Comprehensive Airport Land Use Plan (2012) Pages 2-10 (summary of Safety Zone 6, Traffic Pattern Zone) and 5-6 (Figure VIS-2). Accessed June 2019 at: <https://tularecounty.ca.gov/rma/index.cfm/rma-documents/planning-documents/tulare-county-comprehensive-airport-land-use-plan/>.



The proposed Project will utilize an existing entry/exit point for ease of access/egress. On-site circulation patterns do not involve high speeds, sharp curves or dangerous intersections. It would not be practical for the Project's design features to include sharp curves because of the maneuverability limitations and acceleration/deceleration requirements of heavy-duty trucks that will be utilized by the Project. Also, the nearest intersection (an existing 4-way STOP at Avenue 280/Road 68) will be impacted by an estimated 10% of vehicle trips the Project is anticipated to generate.

Although there will be an increase in the volume of vehicles accessing/egressing the site, the Project's design features will not present a substantial increase in hazards. Therefore, a ***Less Than Significant Project-specific Impact*** related to this Checklist Item will occur.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan Background Report, and/or Tulare County 2030 General Plan EIR.

As noted earlier, no significant design changes that would result in a hazard are proposed. As such, ***Less Than Significant Cumulative Impacts*** related to this Checklist Item will occur.

Mitigation: ***None Required.***

Conclusion: ***Less Than Significant Impact***

As noted earlier, ***Less Than Significant Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.

**e) Result in inadequate emergency access?**

Project Impact Analysis: ***Less Than Significant Impact***

“In the event of a disaster, certain facilities are critical to serve as evacuation centers, provide vital services, and provide for emergency response. Existing critical facilities in Tulare County include hospitals, county dispatch facilities, electrical, gas, and telecommunication facilities, water storage and treatment systems, wastewater treatment systems, schools, and other government facilities. This plan also addresses evacuation routes, which include all freeways, highways, and arterials that are located outside of the 100-year flood plain.”<sup>50</sup>

The proposed Project does not involve a change to any emergency response plan. One approximately 30-foot wide access/egress point to and from the Project area will be located along the westerly edge of the northern boundary. The width of the access/egress point is

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<sup>50</sup> Tulare County General Plan 2030 Update Background Report. Page 8-45.



wide enough to accommodate two-way traffic, and therefore, any size emergency response vehicle. As such, emergency access to the site will be adequate. Therefore, the proposed Project will result in a ***Less Than Significant Impact*** related to this Checklist item.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan Background Report, and/or Tulare County 2030 General Plan EIR. The site will have adequate access for emergency vehicles.

As previously noted, an approximately 30-foot wide access/egress point to and from the Project area will be located along the westerly edge of the northern boundary. The width of the access/egress point is wide enough to accommodate two-way traffic, and therefore, any size emergency response vehicle. As such, emergency access to the site will be adequate. Therefore, ***No Cumulative Impact*** to this Checklist Item will occur.

Mitigation: ***None Required.***

Conclusion: ***No Impact***

***No Cumulative Impacts*** related to this Checklist Item will occur.

**f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?**

Project Impact Analysis: ***Less Than Significant Impact***

Public transit, pedestrian, or bicycle amenities are unavailable within the vicinity of the Project site. The Project trips are proposing to utilize a rural roadway (Avenue 280) that is currently used by all motorized vehicles types but does not have significant volumes of bicyclists or pedestrians. Avenue 280 has an Average Daily Traffic (ADT) count of 8,820 between SR 99 and the Kings County Line.<sup>51</sup> Also, according to the 2018 RTP, Avenue 280 serves as a notable goods movement (i.e., farm-to-market) corridor for major agricultural commodities (predominantly dairy and nuts) to access SR 99.<sup>52</sup> The Project will not significantly impact pedestrian and bicycle facilities except as they relate to an incremental increase in roadway traffic volumes.

Due to the nature of the Project, its rural location, and very low population near or within vicinity of the Project site, the use of alternate transportation (such as public transit, walking, and biking) is not practical. Also, the Project's employment base (approximately 10-20 employees) would not generate the ridership (and accompanying fare box return) necessary

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<sup>51</sup> Ibid. Table 8-9. Page. 8-58.

<sup>52</sup> 2018 RTP Figure 5-3 Farm to Market Routes. Page 5-6. Accessed at: <http://www.tularecog.org/RTPSCS/GoodsMovementChapter.pdf>.



to support extending transit services to the site. As such, the Project will not conflict with any established plans or routes, nor will it decrease the performance or safety of such facilities. Therefore, the proposed Project will result in ***Less Than Significant Impact*** related to this Checklist item.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Traffic Report, Tulare County General Plan 2030 Update, Tulare County General Plan 2030 Update Background Report, Tulare County General Plan 2030 Update RDEIR, and the TCAG 2018 Regional Transportation Plan and Sustainable Communities Strategy.

Mitigation: ***None Required.***

Conclusion: ***Less Than Significant Impact***

Potential Project-specific and cumulative impacts related to this Checklist Item are ***Less Than Significant.***

## ACRONYMS

AWSC	All-Way Stop-Controlled
HCM	Highway Capacity Manual
LOS	Level of Service
TWSC	Two-Way Stop-Controlled

## REFERENCES

Guide for the Preparation of Traffic Impact Studies, California Department of Transportation (Caltrans), December 2002

2010 Tulare County Regional Bicycle Transportation Plan, Tulare County Association of Governments (TCAG)

Tulare County Association of Governments 2018 Regional Transportation Plan and Sustainable Communities Strategy which can be accessed at: <http://www.tularecog.org/wp-content/uploads/2015/06/Final-2014-Regional-Transportation-Plan-Sustainable-Communities-Strategy-FULL-DOCUMENT.pdf>, Accessed November, 2017.



Tulare County Association of Governments “*2018 Regional Transportation Plan and Sustainable Communities Strategy*.” Action Element Page B-48. Accessed at: <http://www.tularecog.org/RTPSCS/ActionElement.pdf>.

Tulare County Association of Governments “*2018 Regional Transportation Plan and Sustainable Communities Strategy*.” Figure 5-3 Farm to Market Routes. Accessed at: <http://www.tularecog.org/RTPSCS/GoodsMovementChapter.pdf>

Tulare County Comprehensive Airport Land Use Plan (2012). Accessed June 2019 at: <https://tularecounty.ca.gov/rma/index.cfm/rma-documents/planning-documents/tulare-county-comprehensive-airport-land-use-plan/>

#### CEQA Guidelines

Tulare County General Plan 2030 Update, August 2012.

Tulare County General Plan 2030 Update, Background Report, February 2010. Accessed at: <http://generalplan.co.tulare.ca.us/documents.html> then locate “Background Report February 2010”, select “February 2010 Background Report”.

Tulare County General Plan 2030 Update, Recirculated Draft Environmental Impact Report (RDEIR), February 2010. Accessed at: <http://generalplan.co.tulare.ca.us/documents.html> then locate “Recirculated Draft Environmental Impact Report February 2010 Draft”, select “Recirculated DEIR”.

“*Traffic Impact Study, Proposed Concrete and Asphalt Batch Plant Avenue 280 West of State Route 99 Tulare County, California*” (TIS) report September 2018. Prepared by consultant Peters Engineering Group and included in Appendix “F” of this DEIR.



# **Tribal Cultural Resources**

## **Chapter 3.18**

### **SUMMARY OF FINDINGS**

The proposed Project will result in ***Less Than Significant Impact With Mitigation*** to Tribal Cultural Resources. Consultant ASM Affiliates, Inc. (ASM), prepared the “*Phase I Survey, 7763 Avenue 280, Visalia, Tulare County California*” (cultural report, included in Appendix “C” of this DEIR). ASM conducted a records search of site files and maps by the Southern San Joaquin Valley Archaeological Information Center, California State University, Bakersfield. A Sacred Lands File Request was also submitted to the Native American Heritage Commission (NAHC). Letters and follow-up phone calls were made to tribal organizations on the NAHC contact list, to determine whether tribal cultural resources were known in or near the Project. These investigations determined that the Project area had not been previously surveyed and that no sites or tribal cultural resources were known to exist within or near it. A Phase I survey fieldwork was conducted (in August 2018) within the approximately 20-acre study area. The cultural report and its supporting evidence is included in Appendix “C”. This information, and additional analysis in the resource discussion item, are used as the basis for determining that this Project will result in a Less Than Significant Impact With Mitigation.

### **INTRODUCTION**

#### California Environmental Quality Act (CEQA) Requirements

Several CEQA statutes and guidelines address requirements for cultural resources, including historic and archaeological resources.<sup>1</sup> If a proposed Project may cause a substantial adverse effect on the significance of a historical resource, then the Project may be considered to have a significant effect on the environment, and the impacts must be evaluated under CEQA (Section 21084.1). The definition of “historical resources” is included in Section 15064.5 of CEQA Guidelines, and includes both historical and archaeological resources. “Substantial adverse change” is defined as “physical demolition, destruction, relocation, or alteration of the resource...”

Section 15064.5 also provides guidelines when there is a probable likelihood of Native American remains existing in the Project site. Provisions for the accidental discovery of historical or unique archaeological resources encountered during construction include a recommendation for evaluation by a qualified archaeologist, with follow up as necessary.

Public Resources Code Section 5097.5 prohibits excavation or removal of any “vertebrate paleontological site...or any other archaeological, paleontological or historical feature, situated

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<sup>1</sup> “CEQA Basics” [http://ohp.parks.ca.gov/?page\\_id=21721](http://ohp.parks.ca.gov/?page_id=21721). Accessed May 2019.



on public lands, except with express permission of the public agency having jurisdiction over such lands.”

This section of the Draft Program/Project Environmental Impact Report (DEIR) for the Project meets CEQA requirements by addressing potential impacts to tribal cultural resources on the proposed Project site. The “Environmental Setting” section provides a description of cultural resources in the region, with special emphasis on the proposed Project site and vicinity. The “Regulatory Setting” section provides a description of applicable State and local regulatory policies. Results of cultural resources reports from CHRIS are included in Appendix “C” of this DEIR. A description of potential impacts is provided, along with feasible mitigation measures to reduce the impacts to less than significant.

### CEQA Thresholds of Significance

“Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.”<sup>2</sup>

## **ENVIRONMENTAL SETTING**

### Records Search Results

The California Historical Resources Information Center (CHRIS), Southern San Joaquin Valley Information Center (SSJVIC) located at California State University, Bakersfield conducted a cultural resources records search and provided results dated March 30, 2015 to Tulare County RMA. As indicated in the CHRIS results letter provided by SJVIC, “According to the information in our files, there have been no previous cultural resource studies conducted within the project area. There have been no known studies conducted within the Project area. There is one recorded cultural resources within the one-half mile radius of the Project area (TU-00534). There are no recorded cultural resources within project area and it is no known if any exist there. There is one recorded resource within the one-half mile radius, P-54-002179, the Evans ditch. There are no recorded cultural resources within the Project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the

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<sup>2</sup> CEQA Guidelines Appendix “G” Item XVIII. Tribal Cultural Resources.



California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.”<sup>3</sup>

### Native American Consultation

The Office of Planning and Research, State Clearinghouse (OPR/SCH), received a submittal from the Tulare County RMA on January 18, 2019, regarding a Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for this Project. The Native American Heritage Commission (NAHC) was included in the list of agencies to be notified by OPR/SCH as the NAHC maintains a contact list of Native American Tribes as having traditional lands located within the County’s jurisdiction. The NAHC provided a response to the NOP on January 25, 2019; thereafter RMA provided AB 52 consultation notices to five Native American Tribes as recommended by NAHC regarding the proposed Project and one other tribe who had previously requested consultation for all CEQA-related projects requiring consultation opportunities. Additionally, the Tulare County RMA submitted a Sacred Lands File Search (SLF) to the NACH and received a reply on December 26, 2018 indicating “negative results” of the SLF and provided a recommended list of five Native American Tribes the County should consult with regarding the Project. As such, on January 31, 2019, the County mailed (via certified-mail) tribal consultation letters to 11 tribal representatives recommended by the NAHC as a result of both the NOP and the SLF (see Appendix “C”).

## **REGULATORY SETTING**

### ***Federal Agencies & Regulations***

#### The National Historic Preservation Act

The Advisory Council on Historic Preservation (ACHP) is an independent federal agency with the primary mission to encourage historic preservation in the government and across the nation. The National Historic Preservation Act (NHPA), which established the ACHP in 1966, directs federal agencies to act as responsible stewards when their actions affect historic properties. The ACHP is given the legal responsibility to assist federal agencies in their efforts and to ensure they consider preservation during project planning. The ACHP serves as the federal policy advisor to the President and Congress; recommends administrative and legislative improvements for protecting the nation’s diverse heritage; and reviews federal programs and policies to promote effectiveness, coordination, and consistency with national preservation policies. A key ACHP function is overseeing the federal historic preservation review process established by Section 106 of the NHPA. Section 106 requires federal agencies to consider the effects of projects, carried out by them or subject to their assistance or approval, on historic properties and provide the ACHP an opportunity to comment on these projects prior to a final decision on them.<sup>4</sup> The National Historic Preservation Act of 1966 (NHPA) established federal regulations for the purpose of protecting significant cultural resources. The legislation established the

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<sup>3</sup> California Historical Resources Information Center (CHRIS), Southern San Joaquin Valley Information Center (SSJVIC) located at California State University, Bakersfield. Included in Appendix “C” of this DEIR.

<sup>4</sup> Advisory Council on Historic Preservation (ACHP) <https://www.achp.gov/about>



National Register of Historic Places and the National Historic Landmarks Program. It mandated the establishment of the State Historic Preservation Office (SHPO), responsible for implementing statewide historic preservation programs in each state. A key aspect of SHPO responsibilities include surveying, evaluating and nominating significant historic buildings, sites, structures, districts and objects to the National Register.<sup>5</sup>

### ***State Agencies & Regulations***

#### California State Office of Historic Preservation (OHP)

The California State Office of Historic Preservation (OHP) is responsible for administering federally and state mandated historic preservation programs to further the identification, evaluation, registration and protection of California's irreplaceable archaeological and historical resources under the direction of the State Historic Preservation Officer (SHPO), appointed by the governor, and the State Historical Resources Commission, a nine-member state review board appointed by the governor.<sup>6</sup>

“The State historic preservation officer (SHPO) reflects the interests of the State and its citizens in the preservation of their cultural heritage. In accordance with section 101(b)(3) of the act, the SHPO advises and assists Federal agencies in carrying out their section 106 responsibilities and cooperates with such agencies, local governments and organizations and individuals to ensure that historic properties are taking into consideration at all levels of planning and development.”<sup>7</sup> The OHP administers the State Register of Historical Resources and maintains the California Historical Resources Information System (CHRIS) database. “The California Historical Resources Information System (CHRIS) includes the statewide Historical Resources Inventory (HRI) database maintained by OHP and the records maintained and managed, under contract by twelve independent regional Information Centers. The ICs provide archeological and historical resources information, on a fee-for-service basis, to local governments and individuals with responsibilities under the National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA), and California Environmental Quality Act (CEQA), as well as to the general public. ICs collect and maintain information on historical and archaeological resources which was not reviewed under a program administered by OHP.”<sup>8</sup> Tulare, Fresno, Kern, Kings and Madera counties are served by the Southern San Joaquin Valley Information Center (Center), located in Bakersfield, CA. “The purpose of the center is:

- to manage historical resources records, reports, and maps.
- to supply historical resources information to the private and public sector (see Access Policy page for restrictions).
- to provide educational support and information about historical resources in California to the general public.”<sup>9</sup>

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<sup>5</sup> Advisory Council on Historic Preservation, National Historic Preservation Program: Overview, <http://www.achp.gov/overview.html>. Accessed May 2018.

<sup>6</sup> California Office of Historic Preservation [http://ohp.parks.ca.gov/?page\\_id=1066](http://ohp.parks.ca.gov/?page_id=1066)

<sup>7</sup> 30CFR PART 800 – Protection of Historic Properties (incorporating amendments effective August 5, 2004). Page 3 Accessed May 2019 at: <https://www.achp.gov/sites/default/files/regulations/2017-02/regs-rev04.pdf>

<sup>8</sup> Office of Historic Preservation Mission and Responsibilities accessed May 2019 at: [http://ohp.parks.ca.gov/?page\\_id=1066](http://ohp.parks.ca.gov/?page_id=1066)

<sup>9</sup> Southern San Joaquin Valley Information Center accessed May 2019 at: <https://www.csub.edu/ssjvic/>



A historical resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if it:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important to our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.<sup>10</sup>

Tribal Consultation Requirements: SB 18 (Burton, 2004)<sup>11</sup>

On September 29, 2004, Governor Schwarzenegger signed Senate Bill 18, Tribal Consultation Guidelines, into law. This bill amended Section 815.3 of the Civil Code, to amend Sections 65040.2, 65092, 65351, 65352, and 65560 of, and to add Sections 65352.3, 65352.4, and 65562.2 to, the Government Code, relating to traditional tribal cultural Places. SB 18, enacted March 1, 2005, creates a mechanism for California Native American Tribes to identify culturally significant sites that are located within public or private lands within the city or county's jurisdiction. SB 18 requires cities and counties to contact, and offer to consult with, California Native American Tribes before adopting or amending a General Plan, a Specific Plan, or when designating land as Open Space, for the purpose of protecting Native American Cultural Places (PRC 5097.9 and 5097.993). The Native American Heritage Commission (NAHC) provides local governments with a consultation list of tribal governments with traditional lands or cultural places located within the Project Area of Potential Effect. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe.

Tribal Consultation Requirements: AB 52 (Gatto, 2014)<sup>12</sup>

This bill was approved by Governor Brown on September 25, 2014 and became effective July 1, 2015. This bill amended Section 5097.94 of, and to add Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to, the Public Resources Code, relating to Native Americans. The bill specifies that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. This bill requires a lead agency to begin consultation with a California Native American tribe that is traditionally and culturally affiliated (can be a tribe anywhere within the State of California) with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of

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<sup>10</sup> California Office of Historic Preservation, California Register: Criteria for Designation. Accessed May 2019 at: [http://www.ohp.parks.ca.gov/?page\\_id=21238](http://www.ohp.parks.ca.gov/?page_id=21238), accessed May 2019.

<sup>11</sup> Senate Bill No. 18, Chapter 905. Accessed May 2019 at: [http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=200320040SB18](http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200320040SB18)

<sup>12</sup> Assembly Bill No. 52, Chapter 532. Accessed May 2019 at: [http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201320140AB52](http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB52).



proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project.

As shown in the NAHC website, “In 1976, the California State Government passed AB 4239, establishing the Native American Heritage Commission (NAHC) as the primary government agency responsible for identifying and cataloging Native American cultural resources. Up until this point, there had been little government participation in the protection of California’s cultural resources. As such, one of the NAHC’s primary duties, as stated in AB 4239, was to prevent irreparable damage to designated sacred sites, as well as to prevent interference with the expression of Native American religion in California.

Furthermore, the bill authorized the Commission to act in order to prevent damage to and insure Native American access to sacred sites. Moreover, the Commission could request that the court issue an injunction for the site, unless it found evidence that public interest and necessity required otherwise.

In addition, the bill authorized the commission to prepare an inventory of Native American sacred sites located on public lands and required the commission to review current administrative and statutory protections accorded to such sites.

In 1982, legislation was passed authorizing the Commission to identify a Most Likely Descendant (MLD) when Native American human remains were discovered any place other than a dedicated cemetery. MLDs were granted the legal authority to make recommendations regarding the treatment and disposition of the discovered remains. These recommendations, although they cannot halt work on the project site, give MLDs a means by which to ensure that the Native American human remains are treated in the appropriate manner.

Today, the NAHC provides protection to Native American human burials and skeletal remains from vandalism and inadvertent destruction. It also provides a legal means by which Native American descendants can make known their concerns regarding the need for sensitive treatment and disposition of Native American burials, skeletal remains, and items associated with Native American burials.”<sup>13</sup>

#### CEQA Guidelines: Archaeological Resources

Section 15064.5(c) of CEQA Guidelines provides specific guidance on the treatment of archaeological resources as noted below.

- “(1) When a Project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subdivision (a).
- (2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section,

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<sup>13</sup> Native American Heritage Commission. About the Native American Heritage Commission. Accessed May 2019 at: <http://nahc.ca.gov/about/>.



Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.

- (3) If an archaeological site does not meet the criteria defined in subdivision (a), but does meet the definition of a unique archeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c–f) do not apply to surveys and site evaluation activities intended to determine whether the Project location contains unique archaeological resources.
- (4) If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the Project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.”<sup>14</sup>

#### CEQA Guidelines: Human Remains

Public Resources Code Sections 5097.94 and 5097.98 provide guidance on the disposition of Native American burials (human remains), and fall within the jurisdiction of the Native American Heritage Commission:

- “(d) When an initial study identifies the existence of, or the probable likelihood, of Native American human remains within the Project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code Section 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any Items associated with Native American burials with the appropriate Native Americans as identified by the Native American Heritage Commission. Action implementing such an agreement is exempt from:
- (1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).
  - (2) The requirements of CEQA and the Coastal Act.”<sup>15</sup>
- “(e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:
- (1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
    - (A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and

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<sup>14</sup> CEQA Guidelines, Section 15064.5(c).

<sup>15</sup> Ibid. Section 15064.5(d).



- (B) If the coroner determines the remains to be Native American:
  - 1. The coroner shall contact the Native American Heritage Commission within 24 hours.
  - 2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
  - 3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or
- (2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
  - (A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
  - (B) The descendant identified fails to make a recommendation; or
  - (C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.”<sup>16</sup>
- “(f) As part of the objectives, criteria, and procedures required by Section 21082 of the Public Resources Code, a lead agency should make provisions for historical or unique archaeological resources accidentally discovered during construction. These provisions should include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place.”<sup>17</sup>

### ***Local Policy & Regulations***

#### **Tulare County General Plan Policies**

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<sup>16</sup> Ibid. Section 15064.5(e).

<sup>17</sup> Ibid. Section 15064.5(f).



The Tulare County General Plan has a number of policies that apply to projects within the County of Tulare.<sup>18</sup> General Plan policies that relate to the proposed Project are listed below.

**ERM-6.1 Evaluation of Cultural and Archaeological Resources** - The County shall participate in and support efforts to identify its significant cultural and archaeological resources using appropriate State and Federal standards.

**ERM-6.2 Protection of Resources with Potential State or Federal Designations** - The County shall protect cultural and archaeological sites with demonstrated potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation's California Points of Interest and California Inventory of Historic Resources. Such sites may be of Statewide or local significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, or other values as determined by a qualified archaeological professional.

**ERM-6.3 Alteration of Sites with Identified Cultural Resources** - When planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. Development can be permitted in these areas only after a site specific investigation has been conducted pursuant to CEQA to define the extent and value of resource, and Mitigation Measures proposed for any impacts the development may have on the resource.

**ERM-6.4 Mitigation** - If preservation of cultural resources is not feasible, every effort shall be made to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records.

**ERM-6.9 Confidentiality of Archaeological Sites** - The County shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.

**ERM-6.10 Grading Cultural Resources Sites** - The County shall ensure all grading activities conform to the County's Grading Ordinance and California Code of Regulations, Title 20, § 2501 et. seq.

## **IMPACT EVALUATION**

**Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**

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<sup>18</sup> Tulare County General Plan 2030 Update, Part 1 – Goals and Policies Report.



a) **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?**

Project Impact Analysis:

***Less Than Significant Impact With Mitigation***

A resource may be listed as an historical resource in the California Register if it meets any of the following National Register of Historic Places criteria: Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; is associated with the lives of persons important in our past; embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; has yielded, or may be likely to yield, information important in prehistory or history.<sup>19</sup>

The proposed Project will result in no impact upon known sites listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). As noted earlier, ASM Affiliates, Inc. (ASM), prepared the "Phase I Survey, 7763 Avenue 280, Visalia, Tulare County California" (cultural report, included in Appendix "C" of this DEIR). ASM conducted a records search of site files and maps by the Southern San Joaquin Valley Archaeological Information Center, California State University, Bakersfield. A Sacred Lands File Request was also submitted to the Native American Heritage Commission (NAHC). Letters and follow-up phone calls were made to tribal organizations on the NAHC contact list, to determine whether tribal cultural resources were known in or near the Project. These investigations determined that the Project area had not been previously surveyed and that no sites or tribal cultural resources were known to exist within or near it. A Phase I survey fieldwork was conducted (in August 2018) within the approximately 20-acre study area. The cultural report and its supporting evidence is included in Appendix "C". Although no historical, cultural, or tribal cultural resources were identified in the cultural study, it is possible that subsurface discoveries could occur. Also, as no responses were received from the tribes that were notified in compliance with AB 52 requirements, it is not anticipated that Native American tribal cultural resources or remains will be found at any site within the Project planning area. However, **Mitigation Measures 18-1 and 18-2** are included in the unlikely event that Native American remains or tribal cultural resources are unearthed during any ground disturbance activities. These measure require that all work will immediately halt and the NAHC will be contacted to assess the findings and make appropriate mitigation recommendations. Therefore, there will be a ***Less Than Significant Cumulative Impacts With Mitigation*** related to this Checklist Item.

Cumulative Impact Analysis:

***Less Than Significant Impact With Mitigation***

As previously discussed, based on the analysis noted earlier, impacts to Tribal Cultural Resources will be reduced to a level of ***Less Than Significant Project-specific and***

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<sup>19</sup> California Legislative Information. Public Resources Code – PRC 5024.1. Accessed May 2019 at: [https://leginfo.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=PRC&sectionNum=5024.1](https://leginfo.ca.gov/faces/codes_displaySection.xhtml?lawCode=PRC&sectionNum=5024.1).



***Cumulative Impacts With Mitigation*** with the implementation of **Mitigation Measures 18-1 and 18-2**.

Mitigation:

***See Mitigation Measures 18-1 and 18-2***

- 18-1** In the event that historical, archaeological or paleontological resources are discovered during site excavation, the County shall require that grading and construction work on the Project site be immediately suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. In this event, the property owner shall retain a qualified archaeologist/paleontologist to provide recommendations for measures necessary to protect any site determined to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recover, excavation analysis, and curation of archaeological or paleontological materials. County staff shall consider such recommendations and implement them where they are feasible in light of Project design as previously approved by the County.
- 18-2** Consistent with Section 7050.5 of the California Health and Safety Code and (CEQA Guidelines) Section 15064.5, if human remains of Native American origin are discovered during Project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:
1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
    - a. The Tulare County Coroner/Sheriff must be contacted to determine that no investigation of the cause of death is required; and
    - b. If the coroner determines the remains to be Native American:
      - i. The coroner shall contact the Native American Heritage Commission within 24 hours.
      - ii. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
      - iii. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or
  2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.



- a. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
- b. The descendant fails to make a recommendation; or
- c. The landowner or his authorized representative rejects the recommendation of the descendent.

Therefore, as noted earlier, in the unlikely event that Tribal Resource are discovered, implementation of **Mitigation Measures 18-1** and **18-2** would result in *Less Than Significant Project-specific With Mitigation* as a result of this Project.

Conclusion: *Less Than Significant Impact With Mitigation*

As previously discussed, based on the analysis noted earlier, impacts to Tribal Cultural Resources will be reduced to a level of *Less Than Significant Project-specific and Cumulative Impacts With Mitigation* with the implementation of **Mitigation Measures 18-1** and **18-2**.

- a) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe?

Project Impact Analysis: *Less Than Significant Impact With Mitigation*

See earlier discussion at Item a).

Cumulative Impact Analysis: *Less Than Significant Impact With Mitigation*

See earlier discussion at Item a).

Mitigation: *See Mitigation Measures 3.18-1 and 3.18-2*

See earlier discussion at Item a).

Conclusion: *Less Than Significant Impact With Mitigation*

See earlier discussion at Item a).



## ACRONYMS

CEQA	California Environmental Quality Act
CHRIS	California Historic Resources Information System
CRHR	California Register of Historical Resources
HABS/HAER	Historic American Building Survey/Historic American Engineering Record
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act of 1966
OHP	California State Office of Historic Preservation
SHPO	State Historic Preservation Officers

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CEQA Guidelines Appendix “G” Item XVII. Tribal Cultural Resources.

CEQA Guidelines, Sections 15064.5(c), -(d), -(e), and -(f).



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# Utilities and Service Systems

## Chapter 3.19

### SUMMARY OF FINDINGS

The proposed Project will result in ***Less Than Significant Impacts*** to Utilities and Service Systems. “*The Hydrology and Water Quality Report for Proposed Concrete and Asphalt Batch Plant*” report prepared by consultant Mason GeoScience, is included in Appendix “E” of this document which is used as the basis for determining this Project will result in less than significant impact with mitigation. A detailed review of potential impacts is provided in the following analysis.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts to Utilities and Service Systems. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in Section 15126.2 (a), “[a]n EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to



hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.”<sup>1</sup>

The “Environmental Setting” provides a description of the Utilities and Service Systems setting in the County. The “Regulatory Setting” provides a description of applicable Federal, State and Local regulatory policies that were developed in part from information contained in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and/or County 2030 General Plan EIR incorporated by reference and summarized below. Additional documents utilized are noted as appropriate. A description of the potential impacts of the proposed Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

### Thresholds of Significance

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste

## **ENVIRONMENTAL SETTING**

“Tulare County and special districts provide many important services to County residents and businesses in unincorporated communities and hamlets such as water, wastewater, storm drainage, solid waste removal, utilities, communications, fire protection, law enforcement, and a number of other community facilities and services (schools, community centers, etc.).”<sup>2</sup>

“Water districts supply water to communities and hamlets throughout the County. Most communities and some hamlets have wastewater treatment systems; however, several communities including Three Rivers, Plainview, Alpaugh, and Ducor rely on individual septic systems. Storm drainage facilities are generally constructed and maintained in conjunction with transportation improvements or new subdivisions in communities. Solid waste collection in the County is divided into service areas, as determined by the Board of Supervisors, with one license for each area. Southern California Edison provides electric service to the south and central areas of Tulare County while PG&E provides electric service in the north. The [Southern California] Gas Company is the primary provider of natural gas throughout the County.”<sup>3</sup>

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<sup>1</sup> CEQA Guidelines, Section 15126.2 (a).

<sup>2</sup> Tulare County General Plan 2030 Update. Public Facilities and Services. Page 14-3. Accessed June 2019 at: <http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/Appendix%20C%20-%20General%20Plan%202030%20Update.pdf>

<sup>3</sup> Ibid.



The existing site is currently served by Southern California Edison for electrical service and could connect to the Southern California Gas Company for natural gas service. The proposed Dunn Asphalt/Concrete Batch Plant site is currently served by two wells (a third well in non-operational): the existing operational agricultural well will be used to provide water for operational dust control and the existing residential well will be used to provide domestic water for the office building. The asphalt/concrete batch plant will also utilize a 30,000 gallon liquid propane gas tank as the fuel source to heat the oil that will be applied to the asphalt mix. Lastly, as the Project has its own water supply and on-site septic system, connection to either potable water or wastewater providers are not necessary or required.

## REGULATORY SETTING

### *Federal Agencies & Regulations*

#### Resource Conservation and Recovery Act (RCRA)<sup>4</sup>

Congress passed RCRA on October 21, 1976 to address the increasing problems the nation faced from our growing volume of municipal and industrial waste. RCRA, which amended the Solid Waste Disposal Act of 1965, set national goals for:

- Protecting human health and the environment from the potential hazards of waste disposal.
- Conserving energy and natural resources.
- Reducing the amount of waste generated.
- Ensuring that wastes are managed in an environmentally-sound manner.

To achieve these goals, RCRA established three distinct, yet interrelated, programs:

- The solid waste program, under RCRA Subtitle D, encourages states to develop comprehensive plans to manage nonhazardous industrial solid waste and municipal solid waste, sets criteria for municipal solid waste landfills and other solid waste disposal facilities, and prohibits the open dumping of solid waste.
- The hazardous waste program, under RCRA Subtitle C, establishes a system for controlling hazardous waste from the time it is generated until its ultimate disposal — in effect, from “cradle to grave.”
- The underground storage tank (UST) program, under RCRA Subtitle I, regulates underground storage tanks containing hazardous substances and petroleum products.

RCRA banned all open dumping of waste, encouraged source reduction and recycling, and promoted the safe disposal of municipal waste. RCRA also mandated strict controls over the treatment, storage, and disposal of hazardous waste.

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<sup>4</sup> U.S. Environmental Protection Agency. Resource Conservation and Recovery Act (RCRA) Overview. Accessed June 2019 at: <https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-overview>.



## ***State Agencies & Regulations***

### California Global Warming Solutions Act of 2006 (AB 32)

With the passage of AB 32, the State Board Air Resources Board was required to adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions levels in 1990 to be achieved by 2020. “California has a long track record of reducing greenhouse gas emissions by turning waste into resources, exemplified by the waste diversion rate from landfills of 54 percent (which exceeds the current 50 percent mandate) resulting from recovery of recyclable materials. Re-introducing recyclables with intrinsic energy value back into the manufacturing process reduces greenhouse gas emissions from multiple phases of product production including extraction of raw materials, preprocessing and manufacturing. Additionally, by recovering organic materials from the waste stream, and having a vibrant composting and organic materials industry, there is an opportunity to further reduce greenhouse gas emissions through the indirect benefits associated with the reduced need for water and fertilizer for California’s Agricultural sector.”<sup>5</sup>

## ***Local Policy & Regulations***

### Tulare County General Plan Policies

The General Plan has a number of policies that apply to projects within Tulare County. General Plan policies that relate to the proposed Project are listed below.

**PFS-2.3 Well Testing** - The County shall require new development that includes the use of water wells to be accompanied by evidence that the site can produce the required volume of water without impacting the ability of existing wells to meet their needs.

**PFS-3.1 Private Sewage Disposal Standards** - The County shall maintain adequate standards for private sewage disposal systems (e.g., septic tanks) to protect water quality and public health.

**PFS-3.2 Adequate Capacity** - The County shall require development proposals to ensure the intensity and timing of growth is consistent with the availability of adequate wastewater treatment and disposal capacity.

**PFS-4.3 Development Requirements** - The County shall encourage project designs that minimize drainage concentrations and impervious coverage, avoid floodplain areas, and where feasible, provide a natural watercourse appearance.

**PFS-4.4 Stormwater Retention Facilities** - The County shall require on-site detention/retention facilities and velocity reducers when necessary to maintain existing (pre-development) storm flows and velocities in natural drainage systems. The County shall encourage the multi-purpose design of these facilities to aid in active groundwater recharge.

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<sup>5</sup> California Air Resources Board Climate Change Scoping Plan. December 2008. Page 62. Accessed June 2019 at: [http://www.arb.ca.gov/cc/scopingplan/document/adopted\\_scoping\\_plan.pdf](http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf).



**PFS-4.5 Detention/Retention Basins Design** - The County shall require that stormwater detention/retention basins be visually unobtrusive and provide a secondary use, such as recreation, when feasible.

**PFS-4.7 NPDES Enforcement** - The County shall continue to monitor and enforce provisions to control non-point source water pollution contained in the U.S. Environmental Protection Agency National Pollution Discharge Elimination System (NPDES) program.

**PFS-5.3 Solid Waste Reduction** - The County shall promote the maximum feasible use of solid waste reduction, recycling, and composting of waste, strive to reduce commercial and industrial waste on an annual basis, and pursue financing mechanisms for solid waste reduction programs.

**PFS-5.4 County Usage of Recycled Materials and Products** - The County shall encourage all industries and government agencies in the County to use recycled materials and products where economically feasible.

**PFS-5.8 Hazardous Waste Disposal Capabilities** - The County shall require the proper disposal and recycling of hazardous materials in accordance with the County's Hazardous Waste Management Plan.

## IMPACT EVALUATION

### Would the project:

- a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

#### Project Impact Analysis:

#### *Less Than Significant Impact*

The Project site has an existing, on-site septic tank and leach field for disposal of wastewater generated by employees. As noted in the *"Hydrology and Water Quality Report for Proposed Concrete and Asphalt Batch Plant Report"* (Hydrology and Water Quality Report) prepared by consultants Mason GeoScience (included in Appendix "E" of this document), "The Onsite Wastewater Treatment System (OWTS) is located on the west side of the office and is constructed with a dual chamber septic tank that is four feet wide by nine feet long by four feet deep and approximately 1,000 gallon volume. Effluent from the septic tank is leached into a four foot diameter by 30 foot deep concrete lined seepage pit. Available information for the septic system indicates it was repaired in January 1978. The septic system was utilized for onsite use. According to the site owner, the currently permitted OWTS is



functioning and is expected to be utilized for the proposed operations.”<sup>6</sup> The asphalt/concrete batch plant itself will not result in wastewater requiring treatment at a wastewater facility, as such, it will not require new or expanded wastewater treatment.

On-site wells are available to meet the water demand for the Project. As indicated in the *Hydrology and Water Quality Report* (included in Appendix “E” of this document), “The project owner has indicated the project will require 5,000 to 6,000 gallons of water for daily operations; equal to 3.5 to 4.2 gallons of flow per minute from the newly constructed agricultural well located near the northeast corner of the site. Based on these estimates, total annual flow is estimated to be 5.60 to 6.72 acre-feet per year. Anticipated water use for the project will be from the office, dust control, landscaping, and the concrete and asphalt plants. As such, the Project does not require new or expanded water service. It is estimated that a one-acre rural residential property with one domestic well utilizes approximately 2.0 to 3.0 acre-feet per year depending on home size and irrigation use. The total estimated groundwater usage for the project of between 5.60 and 6.72 acre-feet is approximately twice that of the average rural residential property with a domestic well. Therefore, depletion of groundwater by the project will be less than significant. The estimated change in storage beneath the 19.98 acre site was calculated with change in groundwater elevation across various date range spanning the years 2003 through 2018 in the fall and spring seasons.”<sup>7</sup> “The overall calculated changes in storage beneath the site ranged from 1.1 acre feet to 169.8 acre-feet. One date range, from spring 2015 to spring 2018 included a groundwater elevation change of 0.8 feet and yielded a change in storage between those years of 1.1 acre-feet. Most of the calculated changes in storage were a magnitude larger than the minimum and were greater than the estimated changes in storage for the site of 5.60 to 6.72 acre-feet. Therefore, based on historical changes in groundwater beneath the site, the planned 5,000 to 6,000 gallon per day of groundwater usage for the project, and reliability of the water source, the project is not expected to substantially deplete or lower the groundwater table around the site and is less than significant. We estimate approximately 19.0 acres of the site will be graded and covered with gravel and DG surfacing based on the provided site plan overlain on Figure 2. Run-off and run-on to the site is expected to be controlled with engineered grading. The project is anticipated to include a storm water basin engineered to handle surface water runoff and will also provide recharge. Therefore, the project will not substantially deplete recharge and impact is less than significant. We estimate approximately 19.0 acres of the site will be graded and covered with gravel and DG surfacing based on the provided site plan overlain on Figure 2. Run-off and run-on to the site is expected to be controlled with engineered grading. The project is anticipated to include a storm water basin engineered to handle surface water runoff and will also provide recharge. Therefore, the project will not substantially deplete recharge and impact is less than significant.”<sup>8</sup>

Stormwater will be accommodated on-site as required by the County and the Regional Water Quality Control Board. As indicated in the *Hydrology and Water Quality Report* (included in

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<sup>6</sup> “The Hydrology and Water Quality Report for Proposed Concrete and Asphalt Batch Plant” report. Page 29. Prepared by consultants Mason GeoScience (included in Appendix “E” of this document),

<sup>7</sup> Ibid. 34 and 35.

<sup>8</sup> Op. Cit. 36.



Appendix “E” of this document), “It is anticipated that the project will require preparation and approval of waste discharge requirements by the Central Valley Regional Water Quality Control Board.”<sup>9</sup>

Electricity will be provided by SCE and natural gas can be provided by The Gas Company as needed. As noted earlier, the Project will include a 30,000 gallon propane gas tank which will be used as the fuel source to heat the oil that will be mixed with the asphalt. The nature of the Project does not require the use of “land lines” for the provision of telecommunication, rather, “wireless” technologies are available for the Project as necessary.

As such, the Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Therefore, the Project would result in a ***Less Than Significant Impact*** related to this Checklist Item.

Cumulative Impact Analysis: ***Less Than Significant***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the requirements of the Central Valley Regional Water Quality Control Board. The proposed Project will generate a minimal amount of new wastewater to be processed on-site by a septic tank and leach field. As noted earlier, the Project has sufficient water supply for both operations and domestic water. No other resources of this Checklist Item would be impacted by the Project. Therefore, the Project would result in ***Less Than Significant Cumulative Impacts***.

Mitigation: ***None Required.***

Conclusion: ***Less Than Significant Impacts***

As noted earlier, ***Less Than Significant Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.

**b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

Project Impact Analysis ***Less Than Significant Impact***

As noted in Item a), above, on-site water wells are available to meet the water demand for the Project and the *Hydrology and Water Quality Report* (included in Appendix “E” of this document) concludes that sufficient water is available accommodate the Project. The Report used 15 years of data to calculate water storage beneath the site which averaged 28.5 acre

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<sup>9</sup> Op. Cit. 34.



feet,<sup>10</sup> while it also estimated that the Project would usage between 5.60 to 6.72 acre-feet per year. Therefore, there is sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. As such, ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur. Also, see Item 3.10.b) which indicates that the site has sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

Cumulative Impact Analysis: ***Less Than Significant Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the requirements of the Central Valley Regional Water Quality Control Board.

As noted in Section 3.9 Item b), the proposed Project will result in a ***Less than Significant Impact*** related to this Checklist Item.

Mitigation: ***None Required.***

Conclusion: ***Less Than Significant Impact***

As noted earlier, ***Less Than Significant Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.

- c) **Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

Project Impact Analysis: ***No Impact***

As noted in Item a), earlier, the Project site has an existing, on-site septic tank and leach field for disposal of wastewater generated by employees. As noted in the “*Hydrology and Water Quality Report for Proposed Concrete and Asphalt Batch Plant Report*” (Hydrology and Water Quality Report) prepared by consultants Mason GeoScience (included in Appendix “E” of this document), “The Onsite Wastewater Treatment System (OWTS) is located on the west side of the office and is constructed with a dual chamber septic tank that is four feet wide by nine feet long by four feet deep and approximately 1,000 gallon volume. Effluent from the septic tank is leached into a four foot diameter by 30 foot deep concrete lined seepage pit. Available information for the septic system indicates it was repaired in January 1978. The septic system was utilized for onsite use. According to the site owner, the currently permitted OWTS is functioning and is expected to be utilized for the proposed operations. The proposed Project site includes an existing septic system. This septic system is adequate to treat the wastewater needs of the proposed use.”<sup>11</sup> The asphalt/concrete batch

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<sup>10</sup> Op. Cit. 34 and 35.

<sup>11</sup> Op. Cit.



plant itself with not result in wastewater, as such, it will not require new or expanded wastewater treatment. Therefore, ***No Project-specific Impacts*** related to this Checklist Item will occur.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the requirements of Tulare County Environmental Health Services Department.

***No Cumulative Impacts*** related to this Checklist Item will occur.

Mitigation: ***None Required.***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item will occur.

**d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

Project Impact Analysis: ***No Impact***

The proposed Project does not include activities that will result in solid waste generation beyond typical office use waste. The Project will provide a benefit as it is consistent with County General Plan policies *PFS-5.3 Solid Waste Reduction* wherein the County shall promote the maximum feasible use of solid waste reduction, recycling, and composting of waste, strive to reduce commercial and industrial waste on an annual basis, and pursue financing mechanisms for solid waste reduction programs and *PFS-5.4 County Usage of Recycled Materials and Products* wherein the County shall encourage all industries and government agencies in the County to use recycled materials and products where economically feasible. As such, the proposed Project will have ***No Impact*** related to this Checklist Item.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and/or the Tulare County 2030 General Plan EIR.

As noted earlier, Project level solid waste generation will be limited to typical office waste which will not result in a substantial increase in the amount of waste sent to landfills. Also as noted earlier, the Project is consistent with Tulare County General Plan policies *PFS-5.3 Solid Waste Reduction* and *PFS-5.4 County Usage of Recycled Materials and Products*. Therefore, the proposed Project will result in ***No Impact*** to this resource.



Mitigation: *None Required.*

Conclusion: *No Impact*

As noted earlier, *Less Than Significant Project-specific or Cumulative Impacts* related to this Checklist Item will occur.

**e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

Project Impact Analysis: *No Impact*

As noted earlier, Project level solid waste generation will be limited to typical office waste which will not result in a substantial increase in the amount of waste sent to landfills. Also as noted earlier, the Project is consistent with Tulare County General Plan policies PFS-5.3 *Solid Waste Reduction* and PFS-5.4 *County Usage of Recycled Materials and Products*. Therefore, the Project will comply with federal, state, and local management and reduction statutes and regulations related to solid waste. As such, the proposed Project will result in *No Impact* to this resource.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the Federal, State, and Local requirements, including requirements of Cal Recycle, California Air Resources Board, and Tulare County Environmental Health and Human Services Agency (Environmental Health Division).

The proposed Project does not include the creation or expansion of a solid waste facility. Therefore, *No Cumulative Impacts* related to this Checklist Item will occur.

Mitigation: *None Required.*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item will occur.



## REFERENCES

California Air Resources Board Climate Change Scoping Plan. December 2008. Accessed June 2019 at: [http://www.arb.ca.gov/cc/scopingplan/document/adopted\\_scoping\\_plan.pdf](http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf).

CEQA Guidelines, Section 15126.2 (a).

Tulare County General Plan 2030 Update, August 2012. Public Facilities and Services. Page 14-3. Accessed June 2019 at: <http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/Appendix%20C%20-%20General%20Plan%202030%20Update.pdf>.

*“The Hydrology and Water Quality Report for Proposed Concrete and Asphalt Batch Plant”* report. September 27, 2018. Prepared by consultants Mason GeoScience and included in Appendix “E” of this document.

U.S. Environmental Protection Agency. Resource Conservation and Recovery Act (RCRA). Overview. Accessed June 2019 at: <https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-overview>



# Wildfire

## Chapter 3.20

### SUMMARY OF FINDINGS

The proposed Project will result in **No Impact** related to Wildfire. A detailed review of potential impacts is provided in the following analysis.

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

As contained in the Proposed Updates to the CEQA Guidelines (finalized in November 2018), “Senate Bill 1241 (Kehoe, 2012) requires the Office of Planning and Research, the Natural Resources Agency, and CalFire to develop “amendments to the initial study checklist of the [CEQA Guidelines] for the inclusion of questions related to fire hazard impacts for projects located on lands classified as state responsibility areas, as defined in section 4102, and on lands classified as very high fire hazard severity zones, as defined in subdivision (i) of section 51177 of the Government Code.” (Pub. Resources Code, § 21083.01 (emphasis added).)”<sup>1</sup>

At section 15126.2, the CEQA Guidelines state, “(a) The Significant Environmental Effects of the Proposed Project. An EIR shall identify and focus on the significant effects of the proposed project on the environment. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause or risk exacerbating by bringing development and people into the area affected. For example, the EIR should evaluate any potentially significant direct, indirect, or cumulative environmental impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas), including both short-term and long-term conditions, as identified

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<sup>1</sup> Governor’s Office of Planning and Research. Proposed Updates to the CEQA Guidelines. Final. November 2017. Page 36. Accessed June 2018 at: [http://opr.ca.gov/docs/20171127\\_Comprehensive\\_CEQA\\_Guidelines\\_Package\\_Nov\\_2017.pdf](http://opr.ca.gov/docs/20171127_Comprehensive_CEQA_Guidelines_Package_Nov_2017.pdf)



in authoritative hazard maps, risk assessments or in land use plans, addressing such hazards areas.”<sup>2</sup>

To provide an explanation on why it determined that analyzing potential impacts resulting from wildfire, the California Natural Resources Agency (“Natural Resources Agency” or “Agency”) provided a document titled the “*Final Statement of Reasons For Regulation Action Amendments to the State CEQA Guidelines*” (“Final Statement of Reasons”). The amendments address legislative changes to the California Environmental Quality Act (CEQA), clarify certain portions of the existing CEQA Guidelines, and update the CEQA Guidelines to be consistent with recent court decisions. As noted in the Final Statement of Reasons, “The CEQA Guidelines are unique among administrative regulations. They provide a carefully organized, step-by-step guide to the environmental review process. As a result, rather than turning to the statute and case law, many agency staff and planners look to the CEQA Guidelines as a comprehensive source of information regarding CEQA’s requirements.”<sup>3</sup>

In the Final Statement of Reasons document, specifically at “12. CEQA Requires Analysis of the Potential Impacts Associated with Wildfire”, the Agency writes, “Some comments suggested that the Agency should not include questions in Appendix G related to wildfire. In part, those comments suggested that the California Supreme Court’s decision in *CBIA v. BAAQMD* (2015) 62 Cal.4th 369 precludes the analysis of such hazards on proposed projects. The Agency disagrees. In that decision, the Court held that “agencies subject to CEQA *generally* are not required to analyze the impact of existing environmental conditions on a project’s future users or residents.” (*Id.* at p. 377 (emphasis added).) The Court’s opinion also included a significant caveat: “[w]hen a proposed project risks exacerbating those environmental hazards or conditions that already exist an agency must analyze the potential impact of such hazards on future residents or users.” (*Id.*, at p. 377.)

In this context, an effect that a project “risks exacerbating” is similar to an “indirect” effect. Describing “indirect effects,” the CEQA Guidelines state: “If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment.” (CEQA Guidelines, § 15064, (d)(2).) Just as with indirect effects, a lead agency should confine its analysis of exacerbating effects to those that are reasonably foreseeable. (*Id.* at subdivision (d)(3).)

In the context of wildfire, it is clear that development may exacerbate wildfire risks. OPR’s General Plan Guidelines, for example, includes an extensive discussion of the interaction between development and wildfire risk areas, including the “wildland-urban interface.” While wildfire risk already exists in such areas, bringing development to those areas makes the risk worse, and not just for fire risk. Recent research explains:

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<sup>2</sup> Governor’s Office of Planning and Research Final Adopted Text for Revisions to the CEQA Guidelines. 2018 Page 30. Accessed June 2018 at: [http://resources.ca.gov/ceqa/docs/2018\\_CEQA\\_FINAL\\_TEXT\\_122818.pdf](http://resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf)

<sup>3</sup> California Natural Resources Agency Final Statement of Reasons For Regulation Action Amendments to the State CEQA Guideline OAL Notice File No. Z-2018-0116-12. November 2018, Page 2. Accessed June 2018 at: [http://resources.ca.gov/ceqa/docs/2018\\_CEQA\\_Final\\_Statement\\_of%20Reasons\\_111218.pdf](http://resources.ca.gov/ceqa/docs/2018_CEQA_Final_Statement_of%20Reasons_111218.pdf).



The close proximity of houses and wildland vegetation does more than increase fire risk. As houses are built in the WUI, native vegetation is lost and fragmented; landscaping introduces nonnative species and soils are disturbed, causing nonnatives to spread; pets kill large quantities of wildlife; and zoonotic disease, such as Lyme disease, are transmitted.

(Radeloff, et al., “Rapid growth of the US wildland-urban interface raises wildfire risk,” *PROC NATL ACAD SCI USA* (March 27, 2018) 115 (13) 3314-3319 [citations omitted].) Not all development types are likely to create the same risks, however:

The recognition that homes are vulnerable to wildfire in the wildland-urban interface (WUI) has been established for decades... Analysis of hundreds of homes that burned in southern California the last decade showed that housing arrangement and location strongly influence fire risk, particularly through housing density and spacing, location along the perimeter of development, slope, and fire history. Although high-density structure-to-structure loss can occur, structures in areas with low-to-intermediate housing density were most likely to burn, potentially due to intermingling with wildland vegetation or difficulty of firefighter access. Fire frequency also tends to be highest at low to intermediate housing density, at least in regions where humans are the primary cause of ignitions.

(Syphard AD, Bar Massada A, Butsic V, Keeley JE (2013) “Land Use Planning and Wildfire: Development Policies Influence Future Probability of Housing Loss.” *PLoS ONE* 8(8): e71708. <https://doi.org/10.1371/journal.pone.0071708> [citations omitted].) In other words, low-density, leapfrog development may create higher fire risk than high-density, infill development.

Notably, Senate Bill 1241 (Kehoe, 2012) specifically required the Agency to update Appendix G with questions related to wildfire risk. One could view wildfire as a specific legislatively-created exception to the general rule the Court described in the CBIA decision, though the Court did not specifically analyze its provisions. In any event, the Agency drafted the questions in the new wildfire section to focus on the effects of new projects in creating or exacerbating wildfire risks.”<sup>4</sup>

Thereafter, the CEQA Checklist was updated to include questions related to fire hazard impacts for projects located in or near state responsibility areas or lands classified as very high fire hazard severity zones. The Wildfire section addresses factors that could expose people or structures to fire or post-fire flooding or landslides, risk or impair emergency response, or require installation of infrastructure that could exacerbate fire risk.

### CEQA Thresholds of Significance

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<sup>4</sup> Ibid. 86 and 87.



- Impair an adopted emergency response plan or emergency evacuation plan.
- Exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes

## ENVIRONMENTAL SETTING

“A wildfire is an uncontrolled fire spreading through vegetative fuels. Wildfires can be caused by human activities (such as arson or campfires) or by natural events (such as lightning). Wildfires often occur in forests or other areas with ample vegetation. Wildfires differ from other fires due to their large size, the speed at which the fires can spread, and the ability of the fire to change direction unexpectedly and to jump gaps, such as roads, rivers, and fire breaks. In areas where structures and other human development meet or intermingle with wildland or vegetative fuels (referred to as the wildland urban interface or WUI), wildfires can cause significant property damage and present extreme threats to public health and safety. The following three factors contribute significantly to wildfire behavior and can be used to identify wildfire hazard areas.

**Topography:** As slope increases, the rate of wildfire spread increases. South-facing slopes are also subject to more solar radiation, making them drier and thereby intensifying wildfire behavior. However, ridgetops may mark the end of wildfire spread because fire spreads more slowly or may even be unable to spread downhill.

**Fuel:** The type and condition of vegetation plays a significant role in the occurrence and spread of wildfires. Certain types of plants are more susceptible to burning or will burn with greater intensity, and non-native plants may be more susceptible to burning than native species. Dense or overgrown vegetation increases the amount of fuel load. The ratio of living to dead plant matter is also important. The risk of fire increases significantly during periods of prolonged drought, as the moisture content of both living and dead plant matter decreases; or when a disease or infestation has caused widespread damage. The fuel’s continuity, both horizontally and vertically, is also an important factor.

**Weather:** The most variable factor affecting the behavior of wildfires is weather. Temperature, humidity, wind, and lightning can affect chances for ignition and spread of fire. Extreme weather, such as high temperatures and low humidity, can lead to extreme wildfire activity. By contrast, cooling and higher humidity often signal reduced wildfire occurrence and easier containment. Years of precipitation followed by warmer years tend to encourage more widespread fires and longer burn periods. Also, since the mid-1980s, earlier snowmelt and associated warming due to global climate change has been associated with longer and more severe wildfire seasons in the western U.S.



Wildfires can have serious effects on the local environment, beyond the removal of vegetation. Soil exposed to intense heat may lose its capability to absorb moisture and support life. Exposed soils erode quickly and enhance siltation of rivers and streams, thereby enhancing flood potential, harming aquatic life, and degrading water quality. Lands stripped of vegetation are also subject to increased debris flow hazards, as described above. Wildfires can also greatly affect the air quality of the surrounding area.

History: Historical information between 1910 and 2014 indicates that 610 wildfires occurred in the County which burned approximately 1,328,000 acres during this 104-year time period. The following causes represent approximately 95% of the 610 recorded wildfires (approximately 1.3 million acres), and are included as follows: miscellaneous 36% (532,800 acres); lightning 27% (309,000 acres); unknown or unidentified 14% (97,000 acres); arson 8% (63,300 acres); equipment use 5% (43,500 acres); smoking 3% (53,400 acres); and campfires 2% (184,600 acres). The remaining causes which include escaped prescribed burns, debris, vehicles, structures, power-lines, railroads and playing with fire account for the remaining 5% (44,400 acres) of the recorded wildfires. Appendix C [of the Tulare County 2017 Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP)] lists documented fires over 1000 acres that have burned in the County since 1985.

Location: Public Resources Code 4201-4204 and Government Code 51175-89 directed CAL FIRE to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones are referred to as fire hazard severity zones and represented as very high, high and moderate. Specifically, the maps were created using data and models describing development patterns, potential fuels over a 30- to 50-year time horizon, expected fire behavior and expected burn probabilities. The maps are divided into local responsibility areas and State responsibility areas.

Local responsibility areas generally include incorporated cities, cultivated agriculture lands and portions of the desert. Local responsibility area fire protection is typically provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract to the local government. The fire hazard severity zones for the area of local responsibility in the County are shown on Figure B-4 (Appendix B, Hazard Figures [in the MJLHMP]). Fire severity zones are depicted for the Cities of Porterville and Woodlake in Figures B-13 and B-20 (Appendix B, Hazard Figures MJLHMP).

State responsibility area is a legal term defining the area where the State has financial responsibility for wildfire protection. Incorporated cities and Federal ownership are not included. The prevention and suppression of fires in all areas that are not State responsibility areas are primarily the responsibility of local or Federal agencies.

The portion of the County that transitions from the valley floor into the foothills and mountains is characterized by high to very high threat of wildfire; this includes the cities of Porterville and Woodlake, the jurisdiction of Tulare County Office of Education (TCOE), the Tule River Tribe Reservation and areas of the County unincorporated. Steeper terrain in these areas increases the



threat of wildfire. The western portion of the County has little or no threat of wildfire. The risk of wildfire increases where human access exists in high fire hazard severity zones, such as the Sierra Nevada Mountains and foothills, because of a greater chance for human carelessness and because of historic and current fire management practices.

Impact of Climate Change: Climate and weather have long been acknowledged as playing key roles in wildfire activity, and global warming is expected to exacerbate fire impacts on natural and urban ecosystems. Predicting future fire regimes requires an understanding of how temperature and precipitation interact to control fire activity.<sup>7</sup> Since 2012, record drought and record temperatures, have weakened trees throughout California, resulting in millions of acres of failing forestland that then become vulnerable to disease and infestation. Infestations, such as those caused by native bark beetles, have caused tree mortality of epidemic proportions. The scale of tree mortality in California contributes to significantly increased wildfire risks, and presents life safety risks due to falling trees that can injure or kill people. The immediate consequence of tree mortality on California forestlands increases the potential for wildfires, further spread of forest insect tree damage, threats to critical public safety infrastructure from falling trees, reduced forest carbon stocks, loss of commercial timber values to landowners, and diminished wildlife habitat. Due to these increased risks, the County proclaimed states of emergency for tree mortality.

In addition, and in response to the millions of dead trees, a State of Emergency Proclamation was issued by the Governor. A Tree Mortality Task Force, comprised of State and Federal agencies led by CAL FIRE, Cal OES and the Governor's office has identified six counties as high hazard zones due to dead and dying trees and the hazards, this tree mortality presents. The 10 counties include: Amadore, Calaveras, El Dorado, Fresno, Kern, Madera, Mariposa, Placer, Tulare, and Tuolumne. Both the State's and the County's Tree Mortality Task Forces are structured as a Multi-Agency Coordination Group and meet monthly to exchange information and updates among stakeholders. Participants are encouraged to discuss needs and concerns, and leverage each other's subject matter expertise and resources to further response efforts.

Extent: CAL FIRE has classified 22% of the County as high wildfire hazard areas and an additional 27% as very high wildfire hazard areas. These areas are primarily in the foothills and mountain regions in the eastern portion of the County and to a large extent on National Forest or National Park land. Figure B- [in the MJLHMP] depicts the fire severity rating for areas of the County.

Probability of Future Events: Based on historical events, on average, slightly more than on wildfire of over 1000 acres burns within the County each year. Therefore, it is highly likely that a wildfire event will occur within the calendar year impacting the County. Wildfire events have a greater than 1 in 1-year (100%) chance of occurring.”<sup>5</sup>

The Project's location does not lend itself to wildfire risk as it is not within a fire hazard severity zone (as identified by CalFire), lacks slope/terrain conducive to wildfire spread, lacks vegetation

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<sup>5</sup> Tulare County 2017 Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP). March 2018. Pages 69-73. Accessed June 2019 at: <http://oes.tularecounty.ca.gov/oes/index.cfm/mitigation/tulare-county-mjlhmp/>.



which would fuel wildfire (i.e., dense vegetation consisting of shrubs and bushes, dead or dying trees caused by drought or pest infestation (i.e., bark beetle), is surrounded by predominantly agriculturally productive lands, and, as noted earlier, is in the western portion of the County which has little or no threat of wildfire.

## **REGULATORY SETTING**

### ***Federal Agencies & Regulations***

None that apply to this Project.

### ***State Agencies & Regulations***

#### **Senate Bill 1241 (Kehoe, 2012)**

“Wildfire: Senate Bill 1241 (Kehoe, 2012) required the Office of Planning and Research, the Natural Resources Agency, and CalFire to develop “amendments to the initial study checklist of the [CEQA Guidelines] for the inclusion of questions related to fire hazard impacts for projects located on lands classified as state responsibility areas, as defined in section 4102, and on lands classified as very high fire hazard severity zones, as defined in subdivision (i) of section 51177 of the Government Code.” (Pub. Resources Code, § 21083.01 (emphasis added).) The Agency added several questions addressing this issue. Notably, while SB 1241 required the questions to address specific locations, it did not necessarily limit the analysis to those locations, and so the Agency posed the questions for projects located within “or near” those zones. Lead agencies will be best placed to determine precisely where such analysis is needed outside of the specified zones.”<sup>6</sup>

“The safety elements of local general plans will also describe potential hazards, including: “any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence; liquefaction; and other seismic hazards ..., and other geologic hazards known to the legislative body; flooding; and wildland and urban fires.” (Gov. Code § 65302(g)(1).) Hazards associated with flooding, wildfire and climate change require special consideration. (Id. at subd. (g)(2)-(g)(4).) Lead agencies must “discuss any inconsistencies between the proposed project and applicable general plans” related to a project’s potential environmental impacts in a project’s environmental review. (State CEQA Guidelines § 15125(d).) Local governments may regulate land use to protect public health and welfare pursuant to their police power. (Cal. Const., art. XI, § 7; California Building Industry Assn. v. City of San Jose (2015) 61 Cal. 4th 435, 455 (“so long as a land use restriction or regulation bears a reasonable relationship to the public welfare, the restriction or regulation is constitutionally permissible”).)”<sup>7</sup>

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<sup>6</sup> Ibid. 70.

<sup>7</sup> Ibid. 38 and 39.



### CAL FIRE - Tulare Unit Strategic Fire Plan<sup>8</sup>

As summarized in the 2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan (MJLHMP), “The Plan is a local road map to create and maintain defensible landscapes in order to protect vital assets. It seeks to reduce firefighting cost and property loss, increase public and firefighter safety, minimize wildfire risk to communities and contribute to ecosystem health. The Plan identifies pre-suppression projects including opportunities for reducing structural ignitability, and the identification of potential fuel reduction projects and techniques for minimizing those risks. The central goals that are critical to reducing and preventing the impacts of fire revolve around both suppression efforts and fire prevention efforts. The MJLHMP fire hazard analysis and fire related mitigation measures will be provided to Cal Fire to support the Tulare Unit Strategic Fire Plan.”<sup>9</sup>

Cal Fire publishes Fire Hazard Severity Zone Maps for all regions in California, which can be viewed [here](#).<sup>10</sup> The fire hazard measurement used as the basis for these maps includes the speed at which a wildfire moves, the amount of heat the fire produces, and most importantly, the burning fire brands that the fire sends ahead of the flaming front. Lead agencies and project proponents can review the Cal Fire maps to determine whether a given project site will be subject to the new CEQA wildfire impacts analysis.

### ***Local Policy & Regulations***

#### Tulare County Health and Safety Element

During the update of the Health and Safety Element (H&S Element), the County was compelled to comply with AB 162 (regarding flooding) and SB 5 (flood hazard mapping). Wildfire can directly impact contribute to potential flooding opportunities as vegetation that would otherwise provide soil stability could be removed to the extent that exposed soil is vulnerable to land- or mudslides. Such events could subsequently damage/destroy structures (such as buildings), roadways, telecommunications towers, utility lines, etc., or result in land- or mudslide debris (e.g., vegetation, soil, destroyed structures, etc.) entering watercourses such as streams, rivers, lakes, etc. which could damage/destroy habitat, water quality, bridges, shorelines, etc.

As such, the Health and Safety Element addresses AB 162 and SB 5 by including Policies (Section 10.5 Flood Hazards and 10.6 Wildland Fire Hazards) and Implementation Measures in section 10.10. It also contains the following narrative: “Assembly Bill 162 (AB 162), adopted in 2007, amended Government Code Section 65302(d)(3) and (g)(2)) to require cities and counties to identify information regarding flood hazards upon revision of the jurisdiction's housing element on or after January 1, 2009. The requirements of Government Code Section 65302 (d)(3) and (g)(2)(A) are addressed in this General Plan Update as follows: Figure 10-1 (Flood Hazards

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<sup>8</sup> CAL FIRE. Tulare Unit Strategic Fire Plan. Last Update 26 February 2015. <http://cdfdata.fire.ca.gov/pub/fireplan/fpupload/fpppdf1556.pdf>. Accessed June 2019.

<sup>9</sup> 2017 Tulare Multi-Jurisdictional Local Hazard Mitigation Plan; Section 3. Page 15. Accessed June 2019 at: <https://oes.tularecounty.ca.gov/oes/index.cfm/mitigation/tulare-county-mjlhmp/>

<sup>10</sup> CAL FIRE California Fire Hazard Severity Zone Map Update Project. Accessed June 2019 at: [https://www.fire.ca.gov/fire\\_prevention/fire\\_prevention\\_wildland\\_zones\\_maps](https://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps)



and Faults [in the H&S Element]) displays information based on historic and current data regarding flood waters.

Figure 10-1 [in the H&S Element] shows:

- 1) The flood hazard zones (i.e. 100 and 500 Year Flood Zones) from the National Flood Insurance Rate maps published by Federal Emergency Management Agency (FEMA);
- 2) The dam failure inundation maps prepared pursuant to Section 8589.5 that are available from California Emergency Management Agency;
- 3) The California Department of Water Resources (DWR) Awareness Floodplain Mapping Program maps.

Figure 10-2 (Fire Threat [in the H&S Element]) shows:

- 1) Data on areas vulnerable to wildfire; and,
- 2) Urban development boundaries, hamlet development boundaries, and mountain service centers where existing and planned development will occur including structures, roads, utilities, and essential public facilities.

Used in conjunction, Figures 10-1 and 10-2 [in the H&S Element] show areas where FEMA flood zones and fire threats overlap to identify areas vulnerable to flooding after wildfires; The Figures also show where flood hazard zones are within these urban boundaries.”<sup>11</sup>

#### Tulare County General Plan Policies

The Tulare County General Plan has a number of policies that apply to projects within County of Tulare. General Plan policies that relate to the proposed Project are listed below.

**HS-6.1 New Building Fire Hazards** - The County shall ensure that all building permits in urban areas, as well as areas with potential for wildland fires, are reviewed by the County Fire Chief.

**HS-6.5 Fire Risk Recommendations** - The County shall encourage the County Fire Chief to make recommendations to property owners regarding hazards associated with the use of materials, types of structures, location of structures and subdivisions, road widths, location of fire hydrants, water supply, and other important considerations regarding fire hazard that may be technically feasible but not included in present ordinances or policies.

**HS-6.7 Water Supply System** - The County shall require that water supply systems be adequate to serve the size and configuration of land developments, including satisfying fire flow requirements. Standards as set forth in the subdivision ordinance shall be maintained and improved as necessary.

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<sup>11</sup> Tulare County Health and Safety Element Goals and Policies Report. Page 10-3. Accessed June 2019 at: <http://generalplan.co.tulare.ca.us/documents/GP/002Board%20of%20Supervisors%20Materials/001BOS%20Agenda%20Items%20-%20Public%20Hearing%20August,%2028%202012/008Attachment%20G.%20Public%20Comment,%20%20Staff%20Matrix,%20and%20Responses/004Item%204.%20GPU%20AMUS/17-CHP%2010%20Health%20&%20Safety.pdf>



**HS-6.8 Private Water Supply** - The County shall require separately developed dwellings with individual private water supply to provide an acceptable guaranteed minimum supply of water for fire safety, in addition to the amount required for domestic needs.

**HS-7.1 Coordinate Emergency Response - Services with Government Agencies** - The County shall coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters utilizing SEMS and NIMS.

**HS-7.2 Mutual Aid Agreement** - The County shall participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized function.

## IMPACT EVALUATION

**If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:**

**a) Substantially impair an adopted emergency response plan or emergency evacuation plan?**

Project Impact Analysis: *No Impact*

As noted earlier, the Project is establishment of an asphalt and concrete batch plant, asphalt and concrete recycling, materials piles, and machinery/equipment necessary to process the products. The Project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; rather, it is located on the Valley floor in a predominantly rural, agricultural area on relatively flat land (i.e., 0-2% slopes). As such, it would result in *No Impact* to this resource item.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and/or the Tulare County 2030 General Plan EIR. With *No Project-specific Impact*, *No Cumulative Impact* will also occur.

Mitigation: *None Required.*

Conclusion: *No Impact*

As noted earlier, implementation of the proposed Project will result in *No Impact* to this Checklist Item.



- b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**

Project Impact Analysis: *No Impact*

As noted earlier, the Project is establishment of an asphalt and concrete batch plant, asphalt and concrete recycling, materials piles, and machinery/equipment necessary to process the products. Due to the nature of the Project, it would not exacerbate wildfire risks not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. As noted in Item a), above, the Project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; Rather, it is located on the Valley floor in a predominantly rural, agricultural area on relatively flat land (i.e., 0-2% slopes). As such, it would result in *No Impact* to this resource item.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and/or the Tulare County 2030 General Plan EIR. With *No Project-specific Impact, No Cumulative Impact* will also occur.

Mitigation: *None Required.*

Conclusion: *No Impact*

As noted earlier, implementation of the proposed Project will result in *No Impact* to this Checklist Item.

- c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

Project Impact Analysis: *No Impact*

As noted earlier, the Project is establishment of an asphalt and concrete batch plant, asphalt and concrete recycling, materials piles, and machinery/equipment necessary to process the products. Due to the nature of the Project, it would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. As noted in Checklist Item 19 a), the Project would provide its own infrastructure (e.g., electricity connection to SCE, internal water sources, propane gas, etc.). As such, it would result in *No Impact* to this resource item.

Cumulative Impact Analysis: *No Impact*



The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and/or the Tulare County 2030 General Plan EIR. With ***No Project-specific Impact, No Cumulative Impact*** will also occur.

Mitigation: ***None Required***

Conclusion: ***No Impact***

As noted earlier, implementation of the proposed Project will result in ***No Impact*** to this Checklist Item.

**d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

Project Impact Analysis: ***No Impact***

As noted earlier, the Project is establishment of an asphalt and concrete batch plant, asphalt and concrete recycling, materials piles, and machinery/equipment necessary to process the products. Due to the nature of the Project, it would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The Project is located on the Valley floor in on relatively flat land (i.e., 0-2% slopes), as such it is not located in an area where landslides or post-fire slope instability would occur. As noted in Item 10 c), the site is not crossed by any rivers, streams, canals, or irrigation ditches. As such, it is not at risk of down stream flooding. Also, as noted in Item c), The surface topography of the site is relatively flat. Grading for the site is anticipated to include an engineered grading design approved and permitted by Tulare County. The final grading of the site should control the drainage pattern of the site to a stormwater retention pond. Therefore, the Project would result in ***No Impact*** to this resource item.

Cumulative Impact Analysis: ***No Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, Tulare County General Plan Background Report, and/or the Tulare County 2030 General Plan EIR. With ***No Project-specific Impact, No Cumulative Impact*** will also occur.

Mitigation: ***None Required***

Conclusion: ***No Impact***



As noted earlier, implementation of the proposed Project will result in *No Impact* to this Checklist Item.

## DEFINITIONS/ACRONYMS

### Definitions

### Abbreviations and Acronyms

California Natural Resources Agency CBIA v. BAAQMD	California Natural Resources Agency or Agency California Building Industry Association versus Bay Area Air Quality Management District
CAL FIRE	California Department of Forestry and Fire Protection
H&S Element	Health and Safety Element
MJLHMP	Multi-Jurisdictional Local Hazard Mitigation Plan
TCOE	Tulare County Office of Education
SB 1241	Senate Bill 1241 (Kehoe, 2012)
WUI	Wildland-Urban Interface

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# Mandatory Findings of Significance

## Chapter 3.21

### SUMMARY OF FINDINGS

None of the conditions stated below under Section 15065(a) (1)-(4) are present due to the impacts from the proposed Project. The impacts to the below resources are therefore ***Less Than Significant with Mitigation.***

### INTRODUCTION

#### California Environmental Quality Act (CEQA) Requirements

CEQA Guidelines “Mandatory Findings of Significance” (Section 15065(a)) lists the following potential impacts that need to be addressed by a lead agency:

15065(a): *“A lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where there is substantial evidence, in light of the whole record, that any of the following conditions may occur:*

*(1) The project has the potential to: substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species; or eliminate important examples of the major periods of California history or prehistory.*

*(2) The project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals.*

*(3) The project has possible environmental effects that are individually limited but cumulatively considerable. “Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.*

*(4) The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.”*

Under the California Environmental Quality Act (CEQA), an EIR must be prepared when certain specified impacts may result from construction or implementation/operation of a project. An EIR has been prepared for the proposed Project, which fully addresses all of the Mandatory Findings of Significance, as described below.



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Under Section 15065(a) of the CEQA Guidelines, a finding of significance is required if a project “has the potential to substantially degrade the quality of the environment.” In practice, this is the same standard as a significant effect on the environment, which is defined in Section 15382 of the CEQA Guidelines as “a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.” This EIR, in its entirety, addresses and discloses potential environmental affects associated with construction and operation of the proposed Project, including direct, indirect, and cumulative impacts related to the following environmental factors:

Aesthetics	Land Use and Planning
Agriculture and Forestry Resources	Mineral Resources
Air Quality	Noise
Biological Resources	Population and Housing
Cultural Resources	Public Services
Energy	Recreation
Geology and Soils	Transportation
Greenhouse Gas Emissions	Tribal Cultural Resources
Hazards and Hazardous Materials	Utilities and Service Systems
Hydrology and Water Quality	Wildfires

As summarized in Project Requirements/Mitigation Measures Section, this EIR discusses potential environmental resource impacts, the level of significance prior to mitigation, project requirements that are otherwise required by law or are incorporated as part of the project description, feasible mitigation measures, and the level of significance after the incorporation of mitigation measures.

This section of the Draft Environmental Impact Report (DEIR) meets CEQA requirements by making Mandatory Findings of Significance relative to impacts of the proposed Project site located in the San Joaquin Valley portion of Tulare County. The “Environmental Setting” section summarizes environmental resources in the region with special emphasis on the proposed Project site and vicinity. The “Regulatory Setting” provides a description of applicable State and local regulatory policies. A description of the potential impacts of the proposed Project is also provided and includes the identification of feasible mitigation to avoid or lessen the impacts.

### Long Term Impacts

As described in Section 15065(a)(2), a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals. This document addresses the short-term and irretrievable commitment of natural resources to ensure that the consumption is justified on a long-term basis.



### Cumulative Impacts

Under Section 15065(a)(1) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to (1) substantially reduce the habitat of a fish or wildlife species; (2) cause a fish or wildlife population to drop below self-sustaining levels; or (3) substantially reduce the number or restrict the range of an endangered, rare, or threatened species. Section 4.3 (Biological Resources) of the EIR fully addresses impacts related to the reduction of the fish or wildlife habitat, the reduction of fish or wildlife populations, and the reduction or restriction of the range of special-status species.

### Impacts to Species

Section 15065(a)(1) of the CEQA Guidelines states that a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to eliminate important examples of a major period of California history or prehistory. Section 15065(a)(1) amplifies Public Resources Code 21001(c) requiring that major periods of California history are preserved for future generations. It also reflects the provisions of Public Resource Code Section 21084.1 requiring a finding of significance for substantial adverse changes to historical resources. Section 3.4 Biological Resources of this EIR (which is supported by a Biological Evaluation included in Appendix “B” of this document) fully addresses impacts related to Biological resources.

### Impacts to Historical Resources

Section 15064.5 of the CEQA Guidelines establishes standards for determining the significance of impacts to historical resources and archaeological sites that are an historical resource. Sections 3.5 Cultural Resources and 3.18 Tribal Cultural Resources of this EIR (which are supported by a Phase I Cultural Resources Survey included in Appendix “C” of this document) fully addresses impacts related to California history and prehistory, historic resources, archaeological resources, and paleontological resources.

### Impacts on Human Beings

Consistent with Section 15065(a)(4) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Under this standard, a change to the physical environment that might otherwise be minor must be treated as significant if people will be significantly affected. This factor relates to adverse changes to the environment of human beings generally, and not to effects on particular individuals. While changes to the environment that could indirectly affect human beings will be represented by all of the designated CEQA issue areas, those that could directly affect human beings include air quality, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, population and housing, public services, transportation/traffic, and utilities, which are addressed in this EIR. Sections 3.3 Air Quality (including Greenhouse Gases



(GHG)), 3.7 Geology and Soils, 3.10 Hydrology and Water Quality, and 3.17 Transportation (including traffic) of this EIR (which are supported by Air Quality/GHG, Geology/Soils, Hydrology/Water Quality, and Traffic technical reports included in Appendices “A”, “D”, “E”, and “F”; respectively, of this document) fully addresses impacts related to these respective resources. The EIR contains analyses for the noise, population and housing, public services, and utilities resources which demonstrates that these respective resources will be not by impacted or will be impacted to a less than significant level.

### Thresholds of Significance

The geographical area may be countywide, statewide, or nationwide, depending on the nature of the impact. Thresholds of Significance for impacts to biological resources are addressed in detail in Chapter 3.4 Biological Resources of this document. Thresholds of Significance for impacts to cultural resources, including impacts to historic and prehistoric resources, are addressed in Chapter 3.5 Cultural Resources and Chapter 3.18 Tribal Cultural Resources of this document.

## **ENVIRONMENTAL SETTING**

“Tulare County... is located in a geographically diverse region with the majestic peaks of the Sierra Nevada framing its eastern region, while its western portion includes the San Joaquin valley floor, which is very fertile and extensively cultivated. Tulare County is the second-leading agricultural-producing county in the U.S. Fresno County is currently (2004) the top producer. In addition to its agricultural production, the county’s economic base also includes agricultural packing and shipping operations.”<sup>1</sup>

The approximately 20-acre proposed Project site is located in an agricultural area of the San Joaquin Valley (in an unincorporated area of Tulare County) located along the south side of Avenue 280, west of State Route 99 (SR 99) and east of Road 68. It is generally bound by Avenue 280 (immediately north), Road 68 (approximately 1.0 mile west), Avenue 272 (0.75 miles south), and State Route 99 (less than one mile east). The area surrounding the proposed Project site predominantly consists of agriculturally productive land, scattered rural residences, a private elementary school, active dairy facilities, the Visalia Municipal Airport (approximately 1.5 miles northeast), and the City of Visalia (approximately 2.5 miles east). The site is surrounded by dairies and dairy-related agricultural fields on its east, west, and south sides; and a walnut orchard to the north.

### Native Vegetation

“Native plant and animal species once abundant in the region have become locally extirpated or have experienced large reductions in their populations due to conversion of upland, riparian, and aquatic habitats to agricultural and urban uses. Remaining native habitats are particularly valuable to native wildlife species including special status species that still persist in the

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<sup>1</sup> Tulare County 2030 Update General Plan Background Report. Page 1-2.



region.”<sup>2</sup> “The project site consists of a wheat field and a fenced area with crushed asphalt substrate containing a large metal-sided barn, an office building, and a raised water tank. The project site has experienced agriculture-related disturbance since at least 1969.”<sup>3</sup> “Two land uses/biotic habitats have been identified on the project site, comprising agricultural field and ruderal. A list of the vascular plant species observed within the project site and the terrestrial vertebrates using, or potentially using, the site is provided in Appendices B and C, [of the Biological Evaluation], see Appendix “B” in this DEIR]] respectively.”<sup>4</sup>

### Existing Cultural and Historic Resources

“Tulare County’s known and recorded cultural resources were identified through historical records, such as those found in the National Register of Historic Places, the Historic American Building Survey/Historic American Engineering Record (HABS/HAER), the California Register of Historic Resources, California Historical Landmarks, and the Tulare County Historical Society list of historic resources.”<sup>5</sup>

Due to the sensitivity of many prehistoric, ethnohistoric, and historic archaeological sites, locations of these resources are not available to the general public. The Information Center at California State University, Bakersfield houses records associated with reported cultural resources surveys, including the records pertinent to sensitive sites, such as burial grounds, important village sites, and other buried historical resources protected under state and federal laws. As noted earlier, a Phase I Cultural Resources Survey is included in Appendix “C” of this document.

## **REGULATORY SETTING**

### ***Federal Agencies & Regulations***

See Chapters 3.4, 3.5, and 3.18 of this document for federal regulations related to biological, cultural, and tribal cultural resources; respectively.

### ***State Agencies & Regulations***

See Chapters 3.4, 3.5, and 3.18 of this document for state regulations related to biological, cultural, and tribal cultural resources; respectively.

### ***Local Policy & Regulations***

See Chapters 3.4, 3.5, and 3.18 of this document for local regulations related to biological, cultural, and tribal cultural resources; respectively.

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<sup>2</sup> “Biological Evaluation (BE) Visalia Concrete/Asphalt Batch Plant Project, Tulare County, California.” Page 6. Prepared by Live Oak Associates (LOA), Inc. September 20, 2018. Included in Appendix “B” of the DEIR.

<sup>3</sup> Ibid. 7.

<sup>4</sup> Op. Cit.

<sup>5</sup> Tulare County 2030 Update General Plan Background Report. Page. 9-56.



## IMPACT EVALUATION

- a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

### *FINDINGS: IMPACTS TO BIOLOGICAL RESOURCES*

#### Project Impact Analysis:

#### *Less Than Significant Impact with Mitigation*

A biological evaluation of the Project site was conducted by consultants Live Oak Associates and is included in this DEIR as Appendix “B”. Results of the assessment are based upon database and literature searches, as well as a site visit. The biological evaluation determined that:

#### **3.4 a)**

#### *Less Than Significant Impact With Mitigation*

“Given the many square miles of agricultural land in the project vicinity that provides similar to higher quality avian nesting habitat, a loss of a small amount of potential nesting habitat for the loggerhead shrike and tricolored blackbird is considered less than significant under CEQA.”<sup>6</sup> Based on this analysis, implementation of **Mitigation Measures 3.4-1** through **3.4-3** (shown as Mitigations 3.3-a, 3.3-b, and 3.3-c in the BE included in Appendix “B”). would reduce potential Project-specific impacts related to this Checklist Item to *Less Than Significant With Mitigation*.

#### **3.4 b)**

#### *No Impact*

Based upon the lack of riparian habitat, *No Impacts* related to this Checklist Item will occur.

#### **3.4 c)**

#### *No Impact*

There is no wetland habitat for special study species located onsite. As such, *No Impact* related to this Checklist Item will occur.

#### **3.4 d)**

#### *Less Than Significant Impact*

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<sup>6</sup> Biological Evaluation (BE) Visalia Concrete/Asphalt Batch Plant Project, Tulare County, California.” Page 7. Prepared by Live Oak Associates (LOA), Inc. September 20, 2018. Included in Appendix “B” of the DEIR.



The Project site does not serve as a fish or wildlife movement corridor. The existing perimeter chain-link fence would restrict the movement of wildlife through the site. ***Less Than Significant Impacts*** related to this Checklist Item will occur.

**3.4 e) *No Impact***

The proposed Project will not conflict with any policies or ordinances protecting biological resources. ***No Impacts*** related to this Checklist Item will occur.

**3.4 f) *No Impact***

There are two habitat conservation plans that apply in Tulare County. The proposed Project does not conflict with these plans. ***No Impacts*** related to this Checklist Item will occur.

**Cumulative Impact Analysis: *Less Than Significant Impact With Mitigation***

The geographic area of this cumulative analysis is the San Joaquin Valley, the State of California, and the Western United States. As noted in Chapter 3.4, cumulative impacts related to biological resources will be ***Less Than Significant*** with implementation of **Mitigation Measures 3.4-1 through 3.4-3.**

**Mitigation: *None Required.***

**Conclusion: *Less Than Significant Impact With Mitigation***

Potential Project-specific and cumulative impacts to biological resources will be ***Less Than Significant*** with implementation of **Mitigation Measures 3.4-1 through 3.4-3.**

***FINDINGS: IMPACTS TO EXAMPLES OF THE MAJOR PERIODS OF CALIFORNIA HISTORY OR PREHISTORY***

**Project Impact Analysis: *Less Than Significant Impact With Mitigation***

Chapter 3.5, Cultural Resources, and Chapter 3.18 Tribal Cultural Resources; respectively, discuss impacts to historic or prehistoric, and tribal cultural resources in detail. Records examined included archaeological site files and maps, the NRHP, Historic Property Data File, California Inventory of Historic Resources, and the California Points of Historic Interest. According to the IC records (Confidential Appendix A) [of the Phase I report], no previous surveys have been completed within the project area and no tribal or archaeological resources are known to exist within it. One previous survey had been completed within 0.5-miles of the project area (IC# TU-534; Peak et al. 1975, Archaeological Assessment of Cultural Resources, Mid-Valley Canal Project, Fresno, Tulare, Merced and Kings Counties, California). Only a single cultural resource had been recorded within 0.5-miles of the project area: P-54-2179/CA-TUL-3053H, the Evans Ditch, located northeast of the project area.



A records search was also conducted at the Native American Heritage Commission (NAHC) Sacred Lands File (Confidential Appendix A) [of the Phase I report]. No sacred sites or tribal cultural resources were known in or in the vicinity of the APE. Outreach letters were then sent to the tribal contact list provided by the NAHC; follow-up phone calls were made one month later. No responses were received from any of the contacts”<sup>7</sup>

Mitigation measures have been included to address the potential of cultural resources being unearthed as a result of proposed Project-related ground excavation. **Mitigation Measures 18-1** and **18-2** are included in the unlikely event that archaeological or paleontological resources are unearthed during Project-related ground excavation; and Chapter 3.5 includes compliance with Section 7050.5 of the California Health and Safety Code (and CEQA Guidelines Section 15064.5) and CEQA Guidelines Section 15064.5 if human remains are discovered during project construction.

Cumulative Impact Analysis: ***Less Than Significant Impact With Mitigation***

The geographic area of this cumulative analysis is Tulare County.

The proposed Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. The proposed Project will be mitigated to ***Less Than Significant Project-specific Impacts*** and ***Less Than Significant Cumulative Impacts With Mitigation***.

Mitigation: ***See Mitigation Measures 18-1 and 18-2 outlined in Chapter 3.18.***

Conclusion: ***Less Than Significant Impact With Mitigation***

***Less Than Significant Project-specific and Cumulative Impacts With Mitigation*** to biological and cultural resources will occur.

- b) **Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

Project Impact Analysis: ***See Chapters 3.1 through 3.20***

Cumulative impacts are discussed within the analysis of each Checklist Item. In addition, cumulative impacts are summarized in Chapter 4.

Cumulative Impact Analysis: ***See Chapter 4***

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<sup>7</sup> Op. Cit. 17.



Cumulative impacts are discussed within the analysis of each Checklist Item. In addition, cumulative impacts are summarized in Chapter 4.

Mitigation: *See Mitigation Measures contained in Chapter 8.*

Conclusion: *See Chapters 3.1 through 3.20*

Cumulative impacts are discussed within the analysis of each Checklist Item. In addition, cumulative impacts are summarized in Chapter 4.

**c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

Project Impact Analysis: *Less Than Significant Impact*

The proposed Project would not result in any impacts to human beings beyond what has already been analyzed in Chapters 3.1 to 3.20.

There are no significant environmental adverse effects from this Project to human beings.

Cumulative Impact Analysis: *Less Than Significant Impact*

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

There are no significant environmental adverse effects from this Project to human beings.

Mitigation: *None Required.*

Conclusion: *Less Than Significant Impact*

There will be *Less Than Significant* environmental effects which will cause substantial adverse effects to impacts to human beings either directly or indirectly.



## **REFERENCES**

Chapters 3.1 through 3.20 of this DEIR.

Tulare County General Plan 2030 Update. August 2012.

Tulare County General Plan 2030 Update. Background Report. February 2010.

Tulare County General Plan 2030 Update. Recirculated Draft Environmental Impact Report (RDEIR). February 2010.



# Summary of Cumulative Impacts

## Chapter 4

### CUMULATIVE IMPACTS ANALYSIS UNDER CEQA

#### Section 15355 Cumulative Impacts

“Cumulative impacts” refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

- (a) The individual effects may be changes resulting from a single project or a number of separate projects.
- (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.”<sup>1</sup>

#### Section 15130 Discussion of Cumulative Impacts

- “(a) An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in section 15065(a)(3). Where a lead agency is examining a project with an incremental effect that is not “cumulatively considerable,” a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.
  - (1) As defined in Section 15355, a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.
  - (2) When the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting the lead agency's conclusion that the cumulative impact is less than significant.
  - (3) An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the

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<sup>1</sup> CEQA Guidelines Section 15355.



project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. The lead agency shall identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable.

- (b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact. The following elements are necessary to an adequate discussion of significant cumulative impacts:
- (1) Either:
    - (A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or
    - (B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency.
  - (2) When utilizing a list, as suggested in paragraph (1) of subdivision (b), factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.
  - (3) Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used.
  - (4) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available, and
  - (5) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.



- (c) With some projects, the only feasible mitigation for cumulative impacts may involve the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis.
- (d) Previously approved land use documents, including, but not limited to, general plans, specific plans, regional transportation plans, plans for the reduction of greenhouse gas emissions, and local coastal plans may be used in cumulative impact analysis. A pertinent discussion of cumulative impacts contained in one or more previously certified EIRs may be incorporated by reference pursuant to the provisions for tiering and program EIRs. No further cumulative impacts analysis is required when a project is consistent with a general, specific, master or comparable programmatic plan where the lead agency determines that the regional or area wide cumulative impacts of the proposed project have already been adequately addressed, as defined in section 15152(f), in a certified EIR for that plan.
- (e) If a cumulative impact was adequately addressed in a prior EIR for a community plan, zoning action, or general plan, and the project is consistent with that plan or action, then an EIR for such a project should not further analyze that cumulative impact, as provided in Section 15183(j).<sup>2</sup>

Tulare County is the geographic extent for most impact analysis. This geographic area is the appropriate extent because of the following reasons:

1. The proposed Project is in Tulare County and County of Tulare is the Lead Agency; and
2. Tulare County General Plan policies apply to the proposed Project.

The basis for other resource specific cumulative impact analysis includes:

- For Air Quality and Greenhouse Gas Emissions it is the San Joaquin Valley Air Basin;
- For Biological Resources it is the San Joaquin Valley;
- For Cultural Resources it is Tulare County; and
- For Hydrology it is the Tulare Lake Basin.

## **PAST, PRESENT, PROBABLE FUTURE PROJECTS**

### Tulare County Association of Governments (TCAG) Blueprint Scenario

Under the Tulare County Regional Blueprint Preferred Growth Scenario, TCAG suggested a 25% increase over the status quo scenario to overall density by 2050. The preferred growth scenario principles included directing growth towards incorporated cities and communities where urban development exists and where comprehensive services and infrastructure are/or will be provided. Another relevant preferred scenario is the creation of urban separators around cities.

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<sup>2</sup> CEQA Guidelines, Section 15130.



Draft Environmental Impact Report  
Dunn Asphalt and Concrete Batch Plant  
SCH #: 2019011039

The proposed Project location is outside incorporated areas and would be consistent with the goal of separating urban boundaries.<sup>3</sup>

Tulare County 2030 General Plan

The Cumulative Analysis outlined in the Tulare County General Plan Update 2030 Recirculated Draft EIR notes regional population growth (which in part was developed by TCAG) and a number major projects. Regional population projections are provided in the **Table 4-1**.<sup>4</sup>

<b>Table 4-1</b> <b>Regional Population Projections and Planning Efforts</b>			
<b>Jurisdiction</b>	<b>General Plan Planning Timeframe</b>	<b>General Plan Buildout Population</b>	<b>Significant Environmental Impacts</b>
City of Dinuba	2006-2026	33,750	Farmland conversion; conflicts with agricultural zoning and Williamson Act contracts; conversion of agricultural soils to non-agricultural use; regional air quality impacts; and climate change-greenhouse gases.
City of Woodlake			Unavailable.
City of Visalia	1991-2020	165,000	Air quality; biological resources; land use conflicts; noise; transportation/traffic; mass transit; agricultural resources; water supply; and visual resources.
City of Tulare	2007-2030	134,910	Farmland conversion; aesthetics; water supply; traffic; air quality; global climate change; noise; flooding from levee or dam failure; biological resources; and cultural resources.
City of Farmersville	2002-2025	12,160	Agricultural resources; agricultural land use conflicts; air quality; and traffic circulation.
City of Exeter			Information unavailable at time of analysis.
City of Lindsay	1990-2010	17,500	Air quality and farmland land conversion.
City of Porterville	2006-2030	107,300	Farmland conversion; air quality; noise; and biological resources.
City of Kingsburg	1992-2012	16,740	Farmland conversion and air quality.
City of Delano	2005-2020	62,850	Air quality; noise; farmland conversion; disruption of agricultural production; and conversion of agricultural soils to non-agricultural use.
County of Fresno	2000-2020	1,113,790	Farmland conversion; reduction in agricultural production; cancellation of Williamson Act Contracts; traffic; transit; bicycle facilities; wastewater treatment facilities; storm drainage facilities; flooding; police protection; fire protection; emergency response services; park and recreation facilities; library services; public services; unidentified cultural resources; water supply; groundwater; water quality; biological resources; mineral resources; air quality; hazardous materials; noise; and visual quality.

<sup>3</sup> Tulare County Associated of Governments Blueprint 2050, Preferred Scenario (2009).

<sup>4</sup> Tulare County General Plan 2030 Update Recirculated Draft EIR. Page 5-4 to 5-5.



**Table 4-1**  
**Regional Population Projections and Planning Efforts**

<b>Jurisdiction</b>	<b>General Plan Planning Timeframe</b>	<b>General Plan Buildout Population</b>	<b>Significant Environmental Impacts</b>
County of Kern	2004-2020	1,142,000	Air quality; biological resources; noise; farmland conversion; and traffic.
County of Kings*	1993-2005	149,100 (low) 228,000 (high)	Biological resources; wildlife movement; and special status species.

*\* The adopted Kings County General Plan did not identify a projected population for 2005. The General Plan does include population projections for 2010, which is included in this table.*

*SOURCE: City of Delano, 1999; City of Dinuba, 2008; City of Farmersville, 2003; City of Kingsburg, 1992; City of Lindsay, 1989; City of Porterville, 2007; City of Visalia, 2001, 1991; County of Fresno, 2000; County of Kern, 2004; County of Kings, 2009; DOF, 2007; TCAG, 2008.*

In addition to the Regional Growth Projections used for the cumulative impact analysis, the Tulare County General Plan Update 2030 Recirculated Draft EIR noted the following Major Projects

- **Rancho Sierra:** Status – GPA approved. The project site consists of 114.6 acres. The site was a golf course facility located on both sides of Liberty Avenue (Avenue 264), east of Road 124, south of the city of Visalia. There are 30 existing homes within the golf course area but not a part of this application. The intended use is to subdivide the site into 175 single family residential lots.
- **Goshen:** Status – Approved. On June 5, 2018, the Tulare County Board of Supervisors (BOS) approved the Goshen Community Plan. The Goshen Community Plan Update was updated to implement the 2030 Tulare County General Plan (2012). The project Study Area Boundary assessed the potential project impacts from the proposed land use changes, for the areas generally north of Riggins Drive and south of Avenue 320, Road 60 to the east, Avenue 304 to the south (including areas between SR 99 and railroad tracks north of the northbound connector from SR 198), and to the City of Visalia’s sphere of influence to the east. The project EIR is based on a projected annual population growth rate of 1.3%. Additional growth beyond the 1.3% annual growth rate will require further growth analysis pursuant to CEQA. The Goshen Community Plan Update is consistent with the General Plan 2030 Update, and includes the following primary goals and objectives: (1) Land use and environmental planning - Promote development within planning areas next to the Regional State Route 99 Corridor; (2) Improvements for a “disadvantaged community”; and 3) Strengthening the relationship between the RMA the Tulare County Association of Governments (TCAG) which will help to facilitate the funding and implementation of several key transportation programs such as Safe Routes to Schools, Complete Streets, and Bike/Pedestrian Projects. By pursuing these transportation programs through a heightened collaborative process, the likelihood of



getting actual projects in the ground will be realized faster than historically achieved. In doing so, these communities and others can become safer and healthier by providing a more efficient transportation network. Some of the major components of the Community Plan Update are based on Caltrans reconstructing the over-crossing at Betty Drive and State Route 99 in the Community of Goshen. There are five additional projects that have been analyzed; three directly and two in relationship to the Project's impacts to these areas. The County is proposing more than 20 new land use and zoning designations, including a Mixed Use zone. Also in the process is an update to the Zoning Code to include a mixed use zoning district in compliance with the mixed use designation in the 2030 General Plan. The Goshen Community Plan is consistent with Tulare County General Plan 2030 Update.

- **Earlimart Community Plan:** Status – GPA approved. On January 28, 2018, the Tulare County Board of Supervisors (BOS) approved the Earlimart Community Plan Update (General Plan Amendment No. 14-005) to implement the Tulare County General Plan 2030 Update (2012). Among the entitlements that were updated are: (1) the General Plan Amendment, (2) changes to Zoning District Boundaries, and (3) changes to the Zoning Code Ordinance creating a New Mixed Use Zoning District only for the Earlimart Community Plan Update. Consistent with the General Plan and the Community Plan Update Study Area Boundary, the land uses and alternative land use patterns were considered based on expansion to the Urban Development Boundary (UDB) and their potential impacts to the environment. In addition, a Complete Streets Program was approved by the Board of Supervisors on December 15, 2015, for inclusion in the Circulation Element of this Community Plan Update. The Earlimart Complete Streets Program thoroughly analyzed the alternative forms of transportation, including transit, bicycle ways, and pedestrian circulation. The three (3) projects that were analyzed at the project level in this DEIR include: (1) the New High School Project, (2) the Northern Earlimart Rezone Project, and (3) the Existing UDB Project. The County adopted six (6) land use and zoning districts, including a Mixed Use zone. Also updated was the Zoning Code to include a mixed use zoning district in compliance with the mixed use designation in the 2030 General Plan. The Community Plan Update is intended to serve residents and business owners in the Project Area by providing necessary public improvements, encouraging rehabilitation and repair of deteriorating infrastructure and fostering economic development of the Project Area. The Earlimart Community Plan is consistent with Tulare County General Plan 2030 Update.
- **Traver Community Plan:** Status – GPA approved. On December 16, 2014 the Tulare County Board of Supervisors (BOS) approved an update to the Traver Community Plan. The Project site/amendment area covers approximately 268 acres in area and encompasses the existing Traver Community Urban Development Boundary (UDB). No change occurred to the UDB. The Traver Community Plan Update is consistent with the recent approval of the General Plan 2030 Update, and includes the following primary goals and objectives. i) a General Plan Amendment No. GPA 14-003 to Update the Traver Community Plan, including the Traver Complete Streets Report; ii) Adopted Section 18.9, the Zoning Ordinance, and established a Mixed-Use Combining Zone; iii)



Applied the Mixed-Use Overlay Zone to select properties located within the UDB of Traver and approved the rezoning plan for the Community of Traver (PZ 14-002); and iii) Amendment to Section 16 of the Zone Code to allow additional “by-right” uses only within the Traver Urban Development Boundary Area. The Traver Community Plan is consistent with Tulare County General Plan 2030 Update.

- **Ducor Community Plan:** Status – GPA approved. On November 3, 2015 the Tulare County Board of Supervisors (BOS) approved an update to the Ducor Community Plan. The project is a comprehensive update of the Ducor Community Plan for the unincorporated community of Ducor located in south-central Tulare County. The Ducor Urban Development Boundary (UDB) adopted in the 2004 Terra Bella/Ducor Community Plan, which established a Community boundary of 366 acres. The Project did not propose any changes to the existing Ducor UDB and, as such, the existing UDB and the proposed Project area remain at 366 acres. The objective in preparing the Plan Update was to develop a plan which can accurately reflect the needs and priorities of Ducor. The Plan Update includes assumptions regarding the amount and location of growth and development anticipated to occur in the community through the horizon Year 2030. The Ducor Community Plan is consistent with Tulare County General Plan 2030 Update.
- **Terra Bella Community Plan:** Status – GPA approved. On November 3, 2015 the Tulare County Board of Supervisors (BOS) approved an update to the Terra Bella Community Plan. Terra Bella is located in south-central Tulare County. The Terra Bella Urban Development Boundary (UDB) was adopted in the 2004 Terra Bella/Ducor Community Plan and contains 1,393 acres. The Terra Bella Community Plan Update (Plan Update or Project) did not propose any changes to the existing Terra Bella UDB and, as such, the existing UDB area remained at approximately 1,393 acres. The objective in preparing the Plan Update was to develop a plan which can accurately reflect the needs and priorities of Terra Bella. The Plan Update includes assumptions regarding the amount and location of growth and development anticipated to occur in the community through the horizon Year 2030. The Terra Bella Community Plan UDB has an adequate amount of land designated for development to accommodate growth through horizon Year 2030. The Terra Bella Community Plan is consistent with Tulare County General Plan 2030 Update.
- **Pixley Community Plan:** Status – GPA approved. On June 17, 2015 the Tulare County Board of Supervisors (BOS) approved an update to the Pixley Community Plan. Pixley is a rural unincorporated community located in the southwest portion of Tulare County between the communities of Tipton and Earlimart, adjacent to State Route 99. The Pixley Urban Development Boundary (UDB), which includes the North Pixley Specific Plan area, consists of approximately 1,992 acres. Overall, the BOS approved the Pixley Community Plan General Plan Update - GPA 14-002, Pixley Zone code Redistricting/Mixed Use Overlay - PZ 15-010, and Pixley By-Right Zoning - PZ 15-011, to allow consistency with the Tulare County General Plan 2030 Update. As such, the Pixley Community Plan is consistent with Tulare County General Plan 2030 Update and



includes the following primary goals and objectives. The objective in preparing the Plan Update was to develop a plan which can accurately reflect the needs and priorities of Terra Bella. The Plan Update includes assumptions regarding the amount and location of growth and development anticipated to occur in the community through the horizon Year 2030. The Terra Bella Community Plan UDB has an adequate amount of land designated for development to accommodate growth through horizon Year 2030.

- **Tipton Community Plan:** Status – GPA approved. On June 17, 2015 the Tulare County Board of Supervisors (BOS) approved the Tipton Community Plan. Tipton is located in the San Joaquin Valley portion of Tulare County, it is approximately eight miles south of Tulare. Tipton is located at the intersection of SR 99 (a major north and south transportation corridor) and State Route 190/Avenue 144 (west of SR 99 (an east and west transportation corridor). Overall, the objective of the Tipton Community Plan is to accurately reflect the needs and priorities of the unincorporated community of Tipton. As such, the Tipton Community Plan is consistent with Tulare County General Plan 2030 Update, and includes the following primary goals and objectives. 1) Land Use and Environmental Planning (to promote development within planning areas next to the Regional Highway 99 Corridor in order to implement applicable General Plan goals); 2) Improvements for a “disadvantaged community” (i.e., increase employment opportunities, increase competitiveness in receiving housing grant awards, and enhance opportunities to receive infrastructure grant awards); 3) Strengthening Relationship with TCAG – (which would help to facilitate the funding and implementation of key transportation programs, such as Complete Streets, and major state Transportation Improvement Program (STIP) projects); and 4) a Zone Ordinance Amendment adopting a Mixed-Use Overlay Zone; Amendment to Section 16 of the Zone Code to allow additional “by-right” uses only within the Tipton Urban Development Boundary Area; and adoption of a Complete Streets Policy for the unincorporated community of Tipton. Tipton’s Urban Development Boundary contains approximately 1,008 acres.
- **Strathmore Community Plan:** Status – GPA approved. On June 17, 2015 the Tulare County Board of Supervisors (BOS) approved an update to the Strathmore Community Plan. The Strathmore Community Plan is consistent with the approved Tulare County General Plan 2030 Update, and includes the following primary goals and objectives. 1) Land Use and Environmental Planning (to promote development within planning areas next to the SR 65 99 Corridor in order to implement applicable General Plan goals); 2) Improvements for a “disadvantaged community” (i.e., increase employment opportunities, increase competitiveness in receiving housing grant awards, and enhance opportunities to receive infrastructure grant awards); 3) Strengthening Relationship with TCAG – (which would help to facilitate the funding and implementation of key transportation programs, such as Complete Streets, and major state Transportation Improvement Program (STIP) projects); and 4) a Zone Ordinance Amendment adopting a Mixed-Use Overlay Zone; Amendment to Section 16 of the Zone Code to allow additional “by-right” uses only within the Strathmore Urban Development Boundary Area; and adoption of a Complete Streets Policy for the unincorporated community of Strathmore.



- **Three Rivers Community Plan:** Status – GPA approved. On June 26, 2018, the Tulare County Board of Supervisors (BOS) approved the Three Rivers Community Plan. The Three Rivers Community Plan Update was updated to implement the 2030 Tulare County General Plan (2012). The unincorporated community of Three Rivers is located within an Urban Development Boundary (UDB) consisting of approximately 21,000 acres and is located approximately 30 miles northeast of Visalia. The nearest incorporated city is Woodlake, approximately 16 miles west on State Route 216. The Three Rivers Community Plan Update is consistent with the General Plan 2030 Update, and includes the following primary goals and objectives: (1) Land use and environmental planning; 2) Economic Development; 3) Three Rivers Community Plan Vision Statements (wherein the Community Plan will provide appropriate direction to help guide balanced public and private decisions affecting the community including provisions for the overall direction, density, type of growth, and protection of the natural environment that is consistent with the Tulare County General Plan, and the needs and desires of the Three Rivers Community to maintain its rural character); and 4) Strengthening Relationship with TCAG – (which would help to facilitate the funding and implementation of key transportation programs, such as Complete Streets, and major state Transportation Improvement Program (STIP) projects). The Board also approved an update to the Zoning Code (and Zone Map) to include a mixed use zoning district in compliance with the mixed use designation in the 2030 General Plan.
  
- **Poplar-Cotton Center:** Status – GPA approved. GPA approved. On December 4, 2018, the Tulare County Board of Supervisors (BOS) approved the Poplar/Cotton Center Community Plan update. The Project site is located approximately eight miles west of Porterville and eleven miles southwest of Lindsay. It is generally bound by Avenue 136 on the south, Avenue 152 on the north, Road 184 on the west, and Road 193 on the east; and encompasses approximately 1.3 square miles of land. The objective of the Poplar/Cotton Center Community Plan Update is to develop a community plan which can accurately reflect the needs and priorities of this unincorporated community. The Land Use and Circulation portions of this Plan will provide the mechanism to minimize or avoid the potential adverse impacts of urban growth. The development of an orderly, harmonious land use pattern and appropriate implementation measures are designed to reduce potential conflict between neighboring uses across Tulare County's 2030 planning horizon, consistent with the Tulare County 2030 General Plan Update. The Community Plan for General Plan Amendment No. GPA 17-010, which is inclusive of the Poplar/Cotton Center Community Plan, amendments to Section 18.9 (PZC 18-006), Section 16 (PZC 18-007), and the Zoning District Map (PZC 18-012), Section 16 (PZC 18-013), and the Zoning District Map (PZC 18-014) of Ordinance No. 352, the Zoning Ordinance, for the Community of Poplar/Cotton Center. The General Plan Amendment is required to i) update the existing Community Plan for Poplar/Cotton Center; ii) approve a Zoning Ordinance amendment to add Poplar/Cotton Center to the Mixed Use Overlay zoning district Section 18.9; iii) approve an amendment to Section 16 of the Zoning Code to allow additional by-right uses; and iv) approve the Zoning District Map, within the



Poplar/Cotton Center Urban Development Boundary, under CEQA Sections 1507 through 1573 of the CEQA Guidelines.

- **Ivanhoe Community Plan:** Status – GPA approved. On July 9, 2019, the Tulare County Board of Supervisors (BOS) approved the Ivanhoe Community Plan update. The Ivanhoe Community Plan Update is intended to implement the 2030 Tulare County General Plan (2012). Ivanhoe is bounded by Avenue 320 in the south, Avenue 336 in the north, Road 152 in the west, and Road 164 in the east and encompasses two square miles of land. SR 216 traverses the southeastern portion of the Community and provides access to SR 198 in Visalia (approximately ten miles southwest of Ivanhoe). SR 99 is located approximately 13 miles west of Ivanhoe. The objective of the Ivanhoe Community Plan Update is to develop a community plan which can accurately reflect the needs and priorities of the unincorporated community of Ivanhoe. The Plan is needed to increase the availability of infrastructure funding, such as drinking water system improvements (wells, water distribution piping, storage tanks, etc.), wastewater system improvements (such as treatment, piping, lift stations, etc.), and public works/safety improvements (such as curbs, gutters, sidewalks, etc.), and to stimulate economic development within the community. The Community Plan for General Plan Amendment No. GPA 17-006, which is inclusive of the Ivanhoe Community Plan, amendments to Section 18.9 (PZC 18-006), Section 16 (PZC 18-007), and the Zoning District Map (PZC 18-008) of Ordinance No. 352, the Zoning Ordinance for the Community of Ivanhoe, were required to achieve consistency with the Tulare County General Plan 2030 Update (August 2012). The General Plan Amendment is required to i) update the existing Community Plan for Ivanhoe; ii) approve a Zoning Ordinance amendment to add Ivanhoe to the Mixed Use Overlay zoning district Section 18.9; iii) approve an amendment to Section 16 of the Zoning Code to allow additional by-right uses; and iv) approve the Zoning District Map, within the Ivanhoe Urban Development Boundary, under CEQA Sections 1507 through 1573 of the CEQA Guidelines.
- **Plainview Community Plan:** Status – GPA approved. On July 9, 2019, the Tulare County Board of Supervisors (BOS) approved the Plainview Community Plan update. The Plainview Community Plan Update is intended to implement the 2030 Tulare County General Plan (2012). Plainview is located approximately four miles west of Strathmore and approximately six (6) miles southwest of Lindsay. The Plainview community boundary includes Avenue 196 on the north; Road 198 on the east; Avenue 194 on the south; it includes both sides of Road 196 on the north; Road 196 to the intersection of Avenue 192; and it includes areas near the Road 195 alignment to the west side of Plainview. The objective of the Plainview Community Plan is to develop a community plan which can accurately reflect the needs and priorities of the unincorporated community of Plainview. The Plan is needed to increase the availability of infrastructure funding, such as drinking water system improvements (wells, water distribution piping, storage tanks, etc.), wastewater system (such as piping, lift stations, etc.), and public work/safety improvements (such as curbs, gutters, sidewalks, etc.), and to stimulate economic development within the community. The Community Plan for General Plan Amendment No. GPA 17-009, which is inclusive of the Plainview Community Plan,



amendments to Section 18.9 (PZC 19-007), Section 16 (PZC 19-008), and the Zoning District Map (PZC 19-009) of Ordinance No. 352, the Zoning Ordinance for the Community of Plainview, were required to achieve consistency with the Tulare County General Plan 2030 Update (August 2012). The General Plan Amendment is required i) for the Community Plan for Plainview; ii) to approve a Zoning Ordinance amendment to add Plainview to the Mixed Use Overlay zoning district Section 18.9; iii) to approve an amendment to Section 16 of the Zoning Code to allow additional by-right uses; and iv) to approve the Zoning District Map, within the Plainview Urban Development Boundary, under CEQA Sections 1507 through 1573 of the CEQA Guidelines.

- **Woodville Community Plan:** Status – GPA approved. On July 9, 2019, the Tulare County Board of Supervisors (BOS) approved the Woodville Community Plan update. The Woodville Community Plan Update is intended to implement the 2030 Tulare County General Plan (2012). Woodville is located southeast of the Road 152/Avenue 168 intersection and is located approximately ten (10) miles southeast of the City of Tulare and eight (8) miles northeast of the State Route 99/Highway 190 interchange. The objective of the Woodville Community Plan is to develop a community plan which can accurately reflect the needs and priorities of the unincorporated community of Woodville. The Plan is needed to increase the availability of infrastructure funding, such as drinking water system improvements (wells, water distribution piping, storage tanks, etc.), wastewater system (such as piping, lift stations, etc.), and public works/safety improvements (such as curbs, gutters, sidewalks, etc.), and to stimulate economic development within the community. The Community Plan for General Plan Amendment No. GPA 17-013, which is inclusive of the Woodville Community Plan, amendments to Section 18.9 (PZC19-004), Section 16 (PZC 19-005), and the Zoning District Map (PZC 19-006) of Ordinance No. 352, the Zoning Ordinance for the Community of Woodville, is required to achieve consistency with the Tulare County General Plan 2030 Update (August 2012). The General Plan Amendment is required i) for the Community Plan for Woodville; ii) to approve a Zoning Ordinance amendment to add Woodville to the Mixed Use Overlay zoning district Section 18.9; iii) to approve an amendment to Section 16 of the Zoning Code to allow additional by-right uses; and iv) to approve the Zoning District Map, within the Woodville Urban Development Boundary, under CEQA Sections 1507 through 1573 of the CEQA Guidelines.

In addition to the Major Projects summarized above, the approved projects listed as follows may contribute to cumulative impacts:

- **Pena's:** Status – Approved. The project is for Peña's Material Recovery Facility (MRF) and Transfer Station (TS)' which currently sits on 18.01 acres that are being rezoned from AE 30 to M1 Light Industrial Zoning, and rezoning 6.7 acres and 11.3 acres from residential and industrial reserve zoning to industrial zoning. The land is currently operated by Peña's Disposal, Inc. and has a previously permitted peak processing capacity of 500 tons per day (TPD). This existing facility serves the unincorporated northern portions of Tulare County and the unincorporated southern portions of Fresno County, and the City of Orange Cove in Fresno County. Within the County of Tulare, the



facility serves the cities of Dinuba and Porterville, the communities of Cutler, Orosi, London, Sultana, Traver, Seville and other smaller communities in the area that may need to utilize the facility for the recycling of source-separated recyclables, commingled recyclables, commercial and industrial rubbish, green material and wood wastes, construction and demolition wastes, and inert debris to assist in reaching the diversion goals of the California Integrated Waste Management Act of 1989 (AB 939).

- **South County Correctional Detention Facility in Porterville:** Status – Approved. The project will require a rezoning of the project site, which is half in the County and half in the City of Porterville. The proposed project contains a build-out “footprint” for the proposed facility of approximately 15.0 acres with a new maximum security Type II facility as the primary structure. The project will consist of 250-cell double occupancy units (500 beds) and 14 special use beds for a total of 514 beds. In addition to the main detention facility, the project will also include support service components.

As the site is currently under agricultural production, the project will require new utilities infrastructure (such as electrical, gas, phone, etc.). It will also require streets/roads improvements, potable water systems, wastewater systems, and storm water drainage infrastructure. These will be constructed or expanded to meet facility demands. Where feasible, the project will be extended to connect with existing potable water, wastewater, and storm water drainage infrastructure provided by City of Porterville. However, possible new construction of the above mentioned infrastructure may be necessary, and as such, will be evaluated.

- **Pixley Biogas:** Status – Approved. The project is for development of a biogas facility on 2.75 acre portion of an 8 acre parcel. The digester will extract methane gas, via an anaerobic manure digester. The facility will be used to produce 266 MMBTUS per day of biogas via an anaerobic digestion of manure feedstock from nearby dairies. The biogas produced will be used to fuel the Calgren bio-refinery facility, located adjacent and to the south of the project site, which will reduce the Calgren plant consumption of natural gas.
- **Harvest Power:** Status – Approved. The project is for a Composting Expansion and Anaerobic Digester. The project will allow a maximum total tonnage for the composting to increase from 156,000 tons per year to a potential 216,000 tons per year. An additional 60,000 tons will be allowed at the proposed anaerobic digester facility. The facility will produce transportation fuel through a compressed natural gas (CNG) refueling station.
- **Orosi Rock:** Status – Approved. The project includes concrete a recycling and surface mining operation on 35.13 acres where concrete from various construction projects around the region are delivered for recycling. The project includes transporting up to 800,000 tons of aggregate via 44,000 trips per year heavy-duty truck trips from the operation on an annual basis.



The amendment to the previous permit allows an increase of 1.9 million tons of rock and 2.1 million tons of imported recycled concrete. The total production of aggregate will be 10.8 million tons over the course of the existing 25 year period of the existing permit. Excavating will be limited to 400' Mean Sea Level (MSL) and the operation will continue blasting by a licensed blaster to break up larger rocks that cannot be moved or broken up by mechanical equipment.

- **Tulare Solar Center:** Status – Approved. The project includes the construction of an 80 MW solar photovoltaic facility on up to 800 acres of an approximately 1,144 acre property historically used as agricultural farmland in Tulare County, California. Proposed Project construction generally requires a focus in three major areas. The areas of focus include: (1) The solar field with associated equipment, including solar PV panels/modules, racking systems, inverters, intermediate voltage transformers, access roads, and underground, above-ground, or overhead electrical systems to collect and consolidate power from across the Project; (2) A substation(s) that receives the solar field's electrical production and increases the voltage to match the voltage of the adjacent utility grid via a generator step-up transformer(s), with Project owned gen-tie lines, and (3) Any other electrical interconnection components necessary for the Project's production to reach the utility grid, including disconnect equipment, communications lines (e.g., fiber optics) and a sub-transmission tap line.
- **Deer Creek Mine (PMR 14-002):** Status – Approved. This project amended a Surface Mining Permit and Reclamation Plan to allow expanded operations at this site. The Applicant currently operates a rock and gravel surface mining operation on 98 of this 118 acre site. The site is located south of Deer Creek Drive, approximately 1/3 mile east of Avenue 120 and Road 272, approximately 4 miles southeast of Porterville. The Project will result in no increase in the maximum depth of the mine, as expansion will occur laterally within the existing mining footprint. The approval includes an increase in production by 450,000 tons per year (from a maximum of 500,000 tons per year to a maximum of 950,000 tons per year). Increase truck hauling by 176 round trips per day (from a maximum of 200 round trips per day to a maximum of 376 round trips per day). The Project will not result in any change to the estimated total rock production of 15,000,000 tons of rock material during the estimated 50 years of operation nor would it result in any change to the approved reclamation plan.
- **CMI (formerly Papich):** Status – Approved. The Applicant received a Special Use Permit through Tulare County for the following: 1) Permanent establishment of the asphalt batch plant on the existing site; 2) Expansion of the existing operation from 3,700 tons/day to 8,000 tons/day of asphalt; and 3) To conduct retail/commercial sales of asphalt.
- **Derrel's Mini Storage:** Status – Approved. The Project includes a proposed General Plan Amendment (No. GPA 14-007) and proposed Change of Zone (No. PZ 14-001). GPA 14-007 received approval to amend the Tulare County Land Use Element of the General Plan by changing the land use designation on the 19.33-acre parcel from



“Agriculture” to “Commercial or Light Industrial”. PZ 14-001 was approved to re-zone the AE-20 (Exclusive Agricultural-20 acre minimum) Zone to C-3 (Service Commercial) Zone on the same 19.33 acres. The zone change allows, as noted in the Tulare County Zoning Ordinance, Mini-Warehouses – “Storage or warehousing service within a building or buildings primarily for individuals to store personal effects”<sup>5</sup>

The site consists of the phased construction of 19.33 acre mini- storage facility. Phase 1 consists of 129,550 square feet; Phase 2 consists of 148,950 square feet, and Phase 3 consists of 96,600 square feet. RV storage will be used on the Phase 2 portion of the site, moving to Phase 3 as the earlier phases are constructed with the eventuality of the entire site constructed as mini storage units (if necessary) to meet market demands. It is possible that Phase 3 will remain as RV storage. The applicant approximates a ten year full build-out of the entire proposed Project site.

- **Hash Farms Residential Subdivision:** Status – Approved. The Project will be located at the northwest corner of Road 16 and Avenue 396, partially within the City of Kingsburg, Fresno County, and Tulare County. The Hash Farms Development Specific Plan is an approved plan for development of a 200-unit residential subdivision (160 single-family units and 40 multi-family units) on a total of 54 acres, including a 2.54 acre park and 1.15 acre fenced stormwater basin. The site is approximately one-half mile east of State Route 99 and approximately one-tenth of a mile south of State Route 201. The 54-acre site is located on Tulare County APNs 028-140-007, 012, 013, 018 and 022, and Fresno County APNs 396-020-008 and 014. The County of Tulare Board of Supervisors approved a tentative subdivision map and a Specific Plan for this project. The City of Kingsburg, County of Fresno, Fresno County Local Agency Formation Commission, and Selma-Kingsburg-Fowler County Sanitation District will also need to take each agencies’ respective actions.
- **Antelope Valley (Redfield):** Status – Approved. The 43-unit single-family residential Antelope Valley Subdivision is located on a ±125-acre site (with average lot size of 2.14 acres) on the north side of Avenue 360 (west side of Road 220), approximately one mile north of the City of Woodlake in Tulare County. The site is approximately five miles west of State Route 198 and twenty-two miles east of State Route 99. The site is zoned PD-F-M (Planned Development-Foothill Combining-Special Mobile Home) Zone and is within the Woodlake 7.5 Minute USGS Quadrangle.
- **Sequoia Gateway Commerce Park:** Status – Approved. The Project consists of a Specific Plan/Corridor Plan for the development of a highway commercial/regional commercial center on ±126.9 acres at the southeast quadrant of State Route 99 and Avenue 280 (Caldwell Avenue) in an unincorporated area of Tulare County. The project will be developed in two major phases. Phase 1 consists of 22,950 sf of highway commercial uses such as fast-food outlets, retail, and gas station fueling pumps with associated convenience store, along with a 60,000 sf medical clinic building on

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<sup>5</sup> Tulare County Zoning Ordinance, Page 13.



approximately 12.4 acres in the northwest corner of the project site. Phase 2, will consist of 986,000 sf of mixed-use commercial land uses including regional retail, hotel, office, restaurant, and fast-food uses on approximately 101.6 acres. Phase 2 will be developed in at least four incremental sub-phases, including additional highway commercial uses adjacent to Phase 1, hotel and restaurant uses, office uses, and regional retail uses. The remaining 12.9 acres will be used for a planned stormwater basin and wastewater treatment plant, along with roadway rights-of-way. Project development will occur in accordance with the detailed planning and design guidelines and standards set forth in the “Sequoia Gateway Commerce Park Specific Plan” (which is contained in Appendix A of the EIR). Phase 1 would commence development in the near-term upon approval of entitlements and permits for that initial phase of development. Phase 2 would commence development at such future time as traffic capacity permits, or after the planned reconstruction of the State Route 99/Caldwell Avenue Interchange, currently in the planning stages, is completed, and other pre-requisite criteria are met for moving forward with permitting and entitlements for that latter phase of development.

- **Derrel’s Mini Storage:** Status – Approved. The re-designation of the land use and zone district for the ±15.0-acre parcel allows by-right construction of a mini-storage facility in two phases: Phase I – 148,500 sq. ft.; and Phase II – 175,200 sq. ft. At complete build-out, the total square footage of rentable storage space would be 323,700. The project also includes a 1,327 sq. ft. residence, a 391 sq. ft. garage, and an 804 sq. ft. office. The Board of Supervisors also approved General Plan Amendment No. GPA 17-031 and Zone Change No. PZC 18-015; (2) General Plan Amendment No. GPA 17-031 that changed the land use from “Mooney Corridor” to “Mixed Use” on one ±15.0 acre parcel; (3) Change of Zone No. PZC 18-015 that changed the zone district from AE-20 to C-2 on one ±15.0-acre parcel; (4) Categorical Exemption and General Plan Amendment No. GPA 17-036 that changed the land use designation from “Mooney Corridor” to “Mixed Use” on two 1.0-acre parcels; and (5) Categorical Exemption and Change of Zone No. PZC 17-043 that changed the zone district from AE-20 to C-2 on two 1.0-acre parcels, located on the east side of Mooney Blvd., approximately 660 feet south of Avenue 264, north of Tulare.
- **Deer Creek Mine (PMR 19-001):** Status – On-Going. The applicant currently operates a rock and gravel surface mining operation on 110 acres, as permitted by PMR 01-001, PMR 09-002, and PSP 01-055 (ZA), and PMR 14-002. Subsequently, the Applicant submitted an application (PMR 19-001) proposing an approximately 20-acre expansion to the footprint and increased operations of the existing and currently operational Deer Creek Mine facility. The permit amendments requested by PMR 19-001 will allow consistency between PMR 01-001, PMR 09-002, PSP 01-055(ZA), and PMR 14-002; result in an approximately 20-acre expansion through the use of a lot line adjustment toward the east and southeast on land currently used for grazing; increase annual production by 500,000 tons per year (from a maximum of 1,000,000 tons per year to a maximum of 1,500,000 tons per year); increase truck hauling by 224 round-trips per day (from a maximum of 376 round-trips per day to a maximum of 600 round-trips per day), with a maximum of 60,000 truck trips per year; result in an increase in the maximum depth of the mine to 300 MSL; and



result in a change to the estimated total rock production of 40,000,000 tons of rock to 75,000,000 tons of rock material during the estimated 50 years of operation.

## SUMMARY OF CUMULATIVE IMPACTS

In this summary section, mitigated impacts and immitigable impacts will be discussed. Checklist Item criteria that would result in No Impact are discussed in Chapter 3 and are not reiterated here.

### Unavoidable Impacts

There are no significant and unavoidable impacts. All potentially significant cumulative impacts have been reduced below a level of significance through mitigation.

### Less than Significant Impacts with Mitigation

All impacts that can be effectively mitigated are listed in the **Table 4-2**.

<b>Table 4-2</b> <b>Checklist Items with Less Than Significant Impacts with Mitigation</b>		
<b>Impact Section</b>	<b>Checklist Item No.</b>	<b>Checklist Criteria</b>
Aesthetics	3.1 a)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
Aesthetics	3.1 b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
Aesthetics	3.1 c)	Substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?
Agriculture and Forestry	3.2 a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
Biology	3.4 a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game [Wildlife] or U.S. Fish and Wildlife Service?
Geology and Soils	3.7 f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
Hazards and Hazardous Materials	3.9 a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?



<b>Table 4-2</b> <b>Checklist Items with Less Than Significant Impacts with Mitigation</b>		
<b>Impact Section</b>	<b>Checklist Item No.</b>	<b>Checklist Criteria</b>
Hazards and Hazardous Materials	3.9 b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
Noise	3.12 a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
Transportation	3.16 a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?
Tribal Cultural Resources	3.17 a)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?
Tribal Cultural Resources	3.17 b)	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe?

See Chapter 9 Mitigation Monitoring and Reporting Program for a comprehensive list of Mitigation Measures to be implemented as part of the proposed Project.

#### Less Than Significant Impact

All impacts that are Less Than Significant are listed in **Table 4-3**.

<b>Table 4-3</b> <b>Checklist Items with Less Than Significant Impacts</b>		
<b>Impact Section</b>	<b>Checklist Item No.</b>	<b>Checklist Criteria</b>
Aesthetics	3.1 d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?
Agricultural Lands & Forestry	3.2 a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to non-agricultural uses?
Air Quality	3.3 a)	Would the project conflict with or obstruct implementation of the applicable air quality plan?
Air Quality	3.3 b)	Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?



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<b>Table 4-3</b> <b>Checklist Items with Less Than Significant Impacts</b>		
<b>Impact Section</b>	<b>Checklist Item No.</b>	<b>Checklist Criteria</b>
Air Quality	3.3 c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?
Air Quality	3.3 d)	Expose sensitive receptors to substantial pollutant concentrations?
Air Quality	3.3 e)	Create objectionable odors affecting a substantial number of people?
Biological Resources	3.4 d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
Cultural Resources	3.5 c)	Disturb any human remains, including those interred outside of formal cemeteries?
Energy	3.6 a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
Energy	3.6 b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?
Geology & Soils	3.7 a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> <li>i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.</li> <li>ii) Strong seismic ground shaking?</li> <li>iii) Seismic-related ground failure, including liquefaction?</li> </ul>
Geology & Soils	3.7 b)	Result in substantial soil erosion or the loss of topsoil?
Geology & Soils	3.7 c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
Greenhouse Gas Emissions	3.8 a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
Greenhouse Gases	3.8 b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?
Hazards & Hazardous Materials	3.9 c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
Hydrology & Water Quality	3.10 a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality??



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<b>Table 4-3</b> <b>Checklist Items with Less Than Significant Impacts</b>		
<b>Impact Section</b>	<b>Checklist Item No.</b>	<b>Checklist Criteria</b>
Hydrology & Water Quality	3.10 b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?
Hydrology & Water Quality	3.9 c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces in a manner which would: <ul style="list-style-type: none"> <li>i) Result in a substantial erosion or siltation on- or off-site?</li> <li>ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?</li> <li>iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?</li> </ul>
Hydrology & Water Quality	3.9 e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?
Land Use & Planning	3.10 b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?
Noise	3.12 b)	Generation of excessive groundborne vibration or groundborne noise levels?
Public Services	3.14 a) Fire protection	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?
Transportation & Traffic	3.16 b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?
Transportation	3.16 d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
Transportation	3.16 e)	Result in inadequate emergency access?
Transportation	3.16 f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?
Utilities	3.18 a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Chapter 4: Summary of Cumulative Impacts

December 2019



**Table 4-3**  
**Checklist Items with Less Than Significant Impacts**

<b>Impact Section</b>	<b>Checklist Item No.</b>	<b>Checklist Criteria</b>
Utilities	3.18 b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

## **REFERENCES**

Chapters 3.1 through 3.20 of this DEIR.

CEQA Guidelines, Sections 15130 (e) and 15355

Tulare County General Plan 2030 Update, Recirculated Draft Environmental Impact Report (RDEIR), February 2010

Tulare County Associated of Governments Blueprint 2050, Preferred Scenario (2009)



# Alternatives

## Chapter 5

### INTRODUCTION

This Chapter will conclude that the proposed Project is the preferred Alternative. Alternative No. 3 Reduced (50%) Project is the Environmentally Superior Alternative; however, it does not meet the economic/financial feasibility objectives of the proposed Project.

CEQA Guidelines Section 15126.6 requires that a reasonable range of alternatives to the Preferred/Proposed Project be discussed in the EIR. Specific requirements include the following:

CEQA Guidelines §15126.6(a): Alternatives to the Proposed Project. An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. The Lead Agency is responsible for selecting a range of alternatives for examination and must publicly disclose its reasoning for selecting those alternatives.

CEQA Guidelines §15126.6 (b) Purpose. Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

CEQA Guidelines §15126.6 (c) Selection of a range of reasonable alternatives. The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Additional information explaining the choice of alternatives may be included in the administrative record. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

CEQA Guidelines §15126.6(d) Evaluation of alternatives. The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause



one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.

CEQA Guidelines §15126.6 (e) “No project” alternative.

- (1) The specific alternative of “no project” shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline (see Section 15125).
- (2) The “no project” analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.
- (3) A discussion of the “no project” alternative will usually proceed along one of two lines:
  - (A) When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, the “no project” alternative will be the continuation of the existing plan, policy or operation into the future. Typically this is a situation where other projects initiated under the existing plan will continue while the new plan is developed. Thus, the projected impacts of the proposed plan or alternative plans would be compared to the impacts that would occur under the existing plan.
  - (B) If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the “no project” alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this “no project” consequence should be discussed. In certain instances, the no project alternative means “no build” wherein the existing environmental setting is maintained. However, where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment.



- (C) After defining the no project alternative using one of these approaches, the lead agency should proceed to analyze the impacts of the no project alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.

CEQA Guidelines §15126.6(f): Rule of reason. The range of alternatives required in an EIR is governed by a “rule of reason” that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making.

- (1) Feasibility. Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.
- (2) Alternative locations.
  - (A) Key question. The key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.
  - (B) None feasible. If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR. For example, in some cases there may be no feasible alternative locations for a geothermal plant or mining project which must be in close proximity to natural resources at a given location.
  - (C) Limited new analysis required. Where a previous document has sufficiently analyzed a range of reasonable alternative locations and environmental impacts for projects with the same basic purpose, the lead agency should review the previous document. The EIR may rely on the previous document to help it assess the feasibility of potential project alternatives to the extent the circumstances remain substantially the same as they relate to the alternative.



- (3) An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

“CEQA Guidelines Section 15021. Duty to minimize environmental damage and balance competing public objectives

- (a) CEQA establishes a duty for public agencies to avoid or minimize environmental damage where feasible.
  - (1) In regulating public or private activities, agencies are required to give major consideration to preventing environmental damage.
  - (2) A public agency should not approve a project as proposed if there are feasible alternatives or mitigation measures available that would substantially lessen any significant effects that the project would have on the environment.
- (b) In deciding whether changes in a project are feasible, an agency may consider specific economic, environmental, legal, social, and technological factors.
- (c) The duty to prevent or minimize environmental damage is implemented through the findings required by CEQA Guidelines Section 15091.
- (d) CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors and in particular the goal of providing a decent home and satisfying living environment for every Californian. An agency shall prepare a statement of overriding considerations as described in Section 15093 to reflect the ultimate balancing of competing public objectives when the agency decides to approve a project that will cause one or more significant effects on the environment.”<sup>1</sup>

## **FACTORS CONSIDERED IN ANALYSIS OF ALTERNATIVES**

In this Alternatives analysis the following evaluation criteria will be used:

### **Evaluation Criteria 1: Project Specific Elements**

Pages 2-3 thru 2-4 contain details of the Project Specific Elements which are summarized as follows:

- Establishment of a permanent hot-mix asphalt and concrete batch plant operation and the use recycled asphalt and concrete.
- Production from 100,000 cubic yards of concrete per year, 30,000 tons of recycled asphalt and concrete as base material will be produced, and 150,000 tons of hot-mix asphalt (HMA) per year.
- Off-street parking (on a paved parking area) of 20 heavy-duty trucks and 14 stalls for employee vehicle parking.
- Estimated 73,2074 vehicle round-trips annually (of which 61,664 would be 4-axle (20,000) to 5-axle (41,664) heavy-duty trucks).
- Use of an existing structure as an office and scale house building.

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<sup>1</sup> CEQA Guidelines, Section 15021



## **Evaluation Criteria 2: Project Objectives**

Pages 2-3 thru 2-4 (of Chapter 2 Project Description) contain details of the Project which are summarized as follows:

- Development of a facility that promotes industrial development in appropriate locations.
- An allowed use (that is, with a special use permit) in the location where it is proposed.
- Ability to provide adequate screening of the site.
- Development of a facility that is near major highways and away from sensitive land uses.
- Continue use of recycled materials.
- Conduct an efficient business operation that is economically, technologically and environmentally feasible.

## **Evaluation Criteria 3: Minimize Costs**

Although there may be a diversity of theoretical alternatives, there are only a few alternatives that could potentially be implemented due to costs involved in the alternative. Considerable increases in costs can result in infeasibility of a project alternative. The Project site area is suitable for the proposed Project (e.g., it is predominantly rural, level, and vacant, etc.) and the applicant has control of the proposed site location. Operational costs (for example, distance traveled to the road network such as SR 99 would also be minimized due to proximity of SR 99 and other major roadways (i.e., Avenue 280) which can be used as north/south and east/west routes; respectively, to reach market areas. Services on another site would significantly increase costs as grading, plumbing, electrical, and other typical construction/operational costs would be required by developing the project on a different site.

## **Evaluation Criteria 4: Operational Efficiency**

Operational efficiency is a major concern in the long-term viability of the business. Operational efficiency affects both operational costs and operational effectiveness through the maximization of equipment use.

## **Evaluation Criteria 5: Reduce Significant Impacts**

Each alternative should be analyzed to assess the potential to reduce significant impacts. (On a cumulative basis, alternative sites generally require the construction of duplicate buildings. The creation of additional buildings requires the use of additional resources, which on a cumulative basis would increase impacts to environment in general.

## **Evaluation Criteria 6: Physical Feasibility (Land Size and Configuration Constraints)**

Physical feasibility is required because if site for a particular alternative is too small or if the components of the proposed Project cannot be configured on the site, then the alternative would not be feasible and should be eliminated from review.



## **ALTERNATIVES ANALYSIS**

In accordance with CEQA Guidelines Section 15126.6, the following alternatives were selected to be evaluated against the proposed Project:

- Alternative 1 – No Build/No Project
- Alternative 2 – Alternative Site
- Alternative 3 – Reduced (50%) Project

### **Alternative 1: No Build/No Project (No Project)**

Description: Under this alternative, the asphalt and concrete batch plants would not be developed, the recycling of asphalt and concrete would not occur, and the project site would remain in its present condition (unproductive agriculture land). However, demand for asphalt/concrete would continue throughout the region. Environmental impacts could likely occur as a result of an alternate location and/or an increase in capacity from another asphalt/concrete provider in order to meet demand. All environmental impacts under the No-Project Alternative would be less than the proposed Project. The No-Project Alternative by definition would not meet the objectives of the proposed Project that were discussed earlier in this chapter.

The No-Project Alternative would result in the following:

- Lack of issuance of a Special Use Permit in a properly zoned location;
- Failure to establish a operation capable of providing asphalt and concrete;
- Failure to implement local and state landfill diversion goals by eliminating a demonstrated efficient and effective recycling alternative;
- Would not meet any project objective or project-specific elements; and
- Would not meet any business objectives desired by the applicant.

Environmental Considerations: Demand for asphalt and concrete would continue in order to accommodate demand by the anticipated/projected growth rate and economic development in the region. Environmental impacts could occur as a result of an alternate location and/or an increase in capacity from another asphalt provider in order to meet demand. However, for this analysis, it is determined that the No-Project Alternative would eventually mean that the asphalt/concrete plant would not exist on the site and agricultural-related operations could resume. All environmental impacts under the No-Project Alternative would be less than the Proposed Project. The No-Project Alternative by definition would not meet the objectives of the proposed Project that were discussed earlier in this chapter.

### **Alternative 2: Alternate Site**

Description: The environmental considerations associated with an alternate site would be highly dependent on several variables, including physical site conditions, surrounding land use, site access, and suitability of the local roadway network. Physical site conditions include land, air, water, minerals, flora, fauna, noise, or objectives of historic or aesthetic significance, and would



affect the nature and degree of direct impacts, needed environmental control systems, mitigation, and permitting requirements. Surrounding land use and the presence of sensitive receptors would influence land use compatibility issues such as air pollutant emissions and health risk, odor, noise, and traffic. Site access and ability of the local roadway network to accommodate increased truck traffic without excessive and costly off site mitigation would be an important project feasibility issue.

The constraint on alternate site selection is the reduction or elimination of significant project impacts. The economic viability of the proposed project is dependent on the ability to efficiently transport asphalt and concrete in and around Tulare County and surrounding areas. To maintain ease of handling and transportation efficiencies that have been incorporated into the proposed site location, any potentially feasible alternate site needs to be located near major roadways/highways and in a location that is easily accessible to all parts of Tulare County and beyond, in addition to other criteria outlined herein.

Environmental Considerations: Development of an alternate site could theoretically meet most of the Project objectives presented earlier in this chapter. However, construction and operation of an alternate site would not be as cost effective or operationally efficient and thus is not consistent with the Project objectives. In addition, construction and operation at an alternate site would likely result in environmental impacts that are equal to or greater than the proposed project. The majority of project impacts identified in the proposed Project are likely to occur at an alternate site.

The Applicant does not have control of an alternate site; if control were viable, the applicant would have to re-initiate the application process as a new project. Similar to the proposed Project site, an alternate site would require environmental review once the Applicant has prepared sufficient project description information. At present, the Applicant does not have control of an alternate site. The time requirements for these activities would reduce the ability of the Applicant to accommodate projected asphalt/concrete demand in a timely manner compared to the proposed Project. This alternative would be the most complex, costly, and time-consuming alternative to implement. Various engineering and technical studies would then be completed to define the project and its required control systems. Environmental review and obtaining local and state entitlements would follow prior to construction activities.

An alternate site was not chosen for evaluation for reasons identified in CEQA Guidelines §15126.6(f): Rule of reason. In addition, an alternate site would likely result in similar or greater environmental impacts in every environmental impact criteria listed in the CEQA Guidelines Appendix G checklist. Therefore, an alternate site was not evaluated.

### **Alternative 3: Reduced (50%) Project**

Description: Under Alternative 3, the proposed Project would be permitted for only 50% of the proposed capacity. Alternative 3 would reduce the size of the proposed Project by reducing the permitted tonnage from a proposed 150,000 TPY to 75,000 TPY of asphalt; 100,000 TPY to 50,000 TPY of concrete; and 30,000 TPY to 15,000 TPY of recycled concrete and asphalt. A 50 percent reduction in tonnage is a reasonable amount to illustrate what impact such an alternative



would have on the significant effects of the proposed Project. Operations would essentially be the same as the proposed Project except that throughput (that is, import and exported material/product) would be substantially reduced.

Environmental Considerations: Most of the environmental issues associated with Alternative 3 would be similar to those of the proposed Project. Alternative 3, however; does involve reduced tonnages. Issues sensitive to changes in tonnages can directly impact air quality, traffic, and economic considerations which are discussed as follows:

*Air Quality:* According to the Air Quality ~~Impact Analysis~~ and Greenhouse Gas ~~Study~~ Technical Memorandum (See Appendix ~~C~~ “A” of this document) prepared for the project, the proposed Project at will have annual air pollutant emission rates which are less than the applicable San Joaquin Valley Air Pollution Control District (SJVAPCD) thresholds of significance, resulting in a less than significant impact. Even though the proposed project is below existing thresholds of significance, a reduced project would result in a further reduction of air and greenhouse gas emissions. Alternative 3 would have lower annual emission rates than the proposed project ~~as follows: CO would be reduced by approximately 31%, NOx by 32%, VOC by 36%, Sox by 37%, PM10 by 42% and PM2.5 by 41%. Therefore, air pollutant emission rates associated with this Alternative are lower than the proposed Project.~~

*Traffic:* Peters Engineering Group prepared a Traffic Impact Study for the proposed project (See Appendix “F” of this document). According to the TIS, Trip Generation associated with the project would average 276 round trips per day (of which 246 would be heavy-duty trucks with four axles (80 or 32.5%) and five axles (166 or 67.5%)). The TIS concluded that there are no significant and unavoidable traffic impacts associated with the proposed Project, however, Alternative 3 would result in approximately 50% less (that is, 138) total vehicle trips per day. Thus, Alternative 3 would reduce the traffic impact.

*Economic Considerations:* Although a financial forecast was not prepared for this Project, a similar project (CMI, formerly Papich Construction Company, Inc. Goshen Asphalt Plant) analyzed the financial feasibility of the proposed project versus a reduced (50%) project. The result was a much narrower profit margin for the reduced project. Much of the efficiencies that would be gained by having a larger production would be lost on the reduced project. For instance, the existing equipment on site was built for a certain maximum daily tonnage capacity that would not be realized, thus the equipment would be underutilized under a reduced project alternative. In addition, net income before property costs, debt service and income tax would be approximately 63% less for the reduced project than the proposed project. Based on the similarity of these projects, it is not unreasonable to conclude that a 50% reduction in this Project’s size would result in a substantial reduction of the economic objectives of this Project.

**Evaluation of Alternatives:** Alternative 1 (No Project) is not considered a viable alternative as it does not accomplish the main element of the Project, which is to develop an asphalt/concrete batch plant and recycling of asphalt/concrete. Factors considered in the comparison of Alternative 2 (Alternative Site) include control of an alternative site, re-initiating the entire application process, the need for new technical studies and/or investigations (e.g., air quality/greenhouse gases,



biological, cultural, geologic, hydrologic, traffic, etc.), and other considerations as noted earlier in this Chapter. Factors considered in the comparison of Alternative 3 (50% Reduction) include air quality, traffic, and economic considerations as noted earlier. Environmental considerations for CEQA purposes are discussed in the next section of this chapter.

In summary, the proposed Project is preferred over all other Alternatives for the following reasons:

- The proposed Project is capable of contributing toward meeting asphalt and concrete materials needs to accommodate planned growth in Tulare county and the region.
- The proposed Project contributes in implementing local and state landfill diversion goals by recycling asphalt/concrete.
- The proposed Project maintains ease of handling and transportation efficiencies by locating near major roadways/highways and in a location that is readily accessible to all parts of Tulare County and beyond.
- The proposed Project is an allowed use with a special use permit in the AE-40 zone.

## ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6 (e)(2) requires that the environmentally superior alternative be identified. If the environmentally superior alternative is the No Project Alternative, the EIR shall identify an environmentally superior alternative among the other alternatives.

The following analyses evaluates Alternatives 1, 2, and 3 against the proposed Project in order to identify the environmentally superior alternative. The relative environmental impacts associated with each of the Alternatives, as compared to the proposed Project, are summarized in **Table 5-1**. A matrix comparing the Evaluation Criteria and Project objectives as they pertain to each Alternative is provided in **Table 5-2**.

<b>Table 5-1</b> <b>Alternatives Evaluation</b>			
	Alternative 1 Project	Alternative 2 Alternate Site	Alternative 3 Reduced (50%) Project
1. Project Specific Elements	No	Some	Yes
2. Project Objectives	No	Some	Some
3. Minimize Costs	No	No	Yes
4. Operational Efficiency	No	No	No
5. Reduce Significant Impacts	Yes	Unknown	Some
6. Physical Feasibility	No	Some	Yes

**Alternative 1: – No Project Alternative.** The No Project Alternative would avoid all potential construction- and operations-related impacts related to air quality, biological resources, cultural resources, greenhouse gas emissions, noise, and traffic resulting from the proposed Project and each of the other Alternatives identified earlier. However, the No Project Alternative would not meet any of the Project objectives or project-specific elements. Therefore, the consideration of the No Project Alternative being the environmentally superior alternative would require the judgment



of whether in balance, eliminating or avoiding certain impacts is of greater benefit environmentally than avoiding certain other impacts. Therefore, this Alternative would not meet the criteria as the Environmentally Superior Alternative.

**Alternative 2: – Alternate Site.** It is unknown if the environmental impacts associated with this Alternative would be less than the proposed Project because it would be speculative to evaluate an unsecured alternate site. This is primarily due to the fact that the applicant does not have control of an alternate site. However, as noted earlier, construction and operation at an alternate site would result in environmental impacts that are likely equal to or greater than the proposed Project. The majority of Project impacts are also likely to occur at an alternate site. Therefore, impacts associated with air quality, greenhouse gas emissions, water use, traffic (and possibly noise and infrastructure) could likely be equal to or greater than the proposed Project. If an alternate site acquisition were viable, the applicant would have to re-initiate the application and environmental review process as a new project. Various engineering and technical studies would need to be completed. The time requirements for these activities would reduce the ability of the Applicant to accommodate projected asphalt/concrete demand in a timely manner compared to the proposed Project. As such, this alternative would be the most complex, costly, and time-consuming alternative to implement. Therefore, Alternative 2 is not superior to the proposed Project and is not considered a viable alternative.

**Alternative 3: – Reduced (50%) Project.** As noted earlier, under Alternative 3, the proposed Project would be permitted for only 50% of the proposed capacity. Operations would essentially be the same as the proposed Project except that throughput would be substantially reduced. Most of the environmental issues associated with Alternative 3 would be similar to those of the proposed Project. Alternative 3, however, does involve reduced tonnages. Issues sensitive to changes in tonnages relate to air quality, traffic, and economic considerations. Also, as noted earlier, it is not unreasonable to conclude that a 50% reduction in this Project's size would result in a substantial reduction of the economic objectives of this Project. Apart from the No Project Alternative, Alternative 3 Reduced (50%) Project would be the Environmentally Superior alternative because it would result in less adverse physical impacts to the environment with regard to air, noise and traffic. However, the Reduced (50%) Project does not meet all of the applicant's Project objectives, particularly with regard to the financial feasibility of this alternative.

In summary, based upon the above analyses, Alternative 3 is the Environmentally Superior Alternative as it would result in reduced significant impacts. However, it does not meet all of the evaluation criteria and importantly, it would not meet the economic objectives of the Project. As seen in **Table 5-2** contains a comparison of each Alternative's and the proposed Project's abilities to achieve the Project objectives and reduce environmental impacts.



**Table 5-2: Impacts of Alternatives Compared to the Proposed Project**

<b>Impact Topic</b>	<b>Alternative 1 No Project</b>	<b>Alternative 2 Alternate Site</b>	<b>Alternative 3 Reduced (50%) Project</b>
Aesthetics	less	unknown-to-more	less
Agriculture and Forestry Resources	less	similar-to-more	similar
Air Quality	less	similar-to-more	less
Biological Resources	less	unknown-to-more	similar
Cultural Resources	less	unknown-to-more	less
Energy	less	unknown-to-more	less
Geology and Soils	less	unknown	less
Greenhouse Gas Emissions s	less	unknown-to-more	less
Hazards and Hazardous Materials	less	unknown-to-more	less
Hydrology and Water Quality	similar	unknown-to-more	less
Land Use and Planning	less	unknown	similar
Mineral Resources	similar	unknown	similar
Noise	less	unknown	less
Population and Housing	similar	unknown	less
Public Services	similar	unknown-to-more	less
Recreation	similar	similar	similar
Transportation	less	unknown-to-more	less
Tribal Cultural Resources	less	unknown	similar
Utilities and Service Systems	less	unknown-to-more	less
Wildfire	less	unknown	similar
Mandatory Findings of Significance	less	unknown	less

## REFERENCES

See References cited in Chapter 3-2 Air Quality; Chapter 3-4 Biological Resources; Chapter 3-5 Cultural Resources; Chapter 3-7 Greenhouse Gas Emissions; Chapter 3-16 Transportation; and Chapter 3-18 Tribal Cultural Resources.



# Economic, Social, and Growth-Inducing Effects

## Chapter 6

### INTRODUCTION

This chapter discusses economic, social, and growth-inducing effects of the Project. **Table 6-1** provides the CEQA requirements and a summary of the impact analysis.

<b>Table 6-1</b> <b>Summary of Economic, Social and Growth Inducing Impacts</b>		
<b>Topic</b>	<b>Summary of Impact</b>	<b>CEQA Requirement</b>
<b>Economic Impact</b>	The proposed Project will not result in negative impacts to the region. It will result in increases in economic benefits as the Project is anticipated to provide up to 20 permanent jobs.	CEQA does not have specific requirements for evaluating the economic impacts of a Project. Section 15131 of CEQA Guidelines states that “Economic or social information may be included in an EIR or may be presented in whatever form the agency desires.”
<b>Social Impact</b>	The proposed Project would not result in disproportionate environmental effects on minority populations, low income populations, or Native Americans. The proposed Project does not pose any adverse environmental justice issues that would require mitigation.	The social impacts of a project include environmental justice considerations. California Government Code Section 65040.12 defines Environmental Justice as “the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies.”
<b>Growth Inducing Effect</b>	The proposed Project would not result in significant growth inducing impacts. The proposed Project will result in only 20 permanent jobs. The Project will not result in new housing. Growth inducing impacts will be less than significant.	CEQA Guidelines Section 15126 (d) makes recommendations for analyzing impacts due to growth inducement, including discussing ways in which the project could foster economic or population growth, the construction of additional housing, or other factors which could remove obstacles to population growth or encourage and facilitate other activities which could impact the environment individually or cumulatively.

Based on the information provided in **Table 6-1**, implementation of the proposed Project would result in ***Less Than Significant*** environmental impacts, either individually or cumulatively, caused by either economic, social, or growth-inducing effects. No mitigation measures are required.

### DEMOGRAPHICS

“The unemployment rate in the Tulare County was 9.8 percent in April 2019, down from a revised 12.1 percent in March 2019, and unchanged the year-ago [2018] estimate of 9.8 percent. This compares with an unadjusted unemployment rate of 3.9 percent for California and 3.3 percent for



the nation during the same period.”<sup>1</sup> The general demographic information can be found in **Table 6-2**.

<b>Table 6-2 Profile of General Population and Housing Characteristics - 2010<sup>2</sup></b>	
<b>Demographic Profile Data</b>	<b>Tulare County</b>
<b>Population</b>	
Total	442,179
% Hispanic or Latino	60.6%
% not Hispanic or Latino	39.4%
White alone	27.5%
Black or African American alone	0.4%
Asian alone	0.2%
Some other race alone	0.1%
Two or more races	1.4%
<b>Housing</b>	
Total housing units	141,696
Occupied Housing Units	130,352
Vacant housing units	11,344
Owner-occupied housing units	76,586 (58.8%)
Renter-occupied housing units	53,766 (41.2%)
Homeowner vacancy rate (%)	2.4%
Renter vacancy rate (%)	5.8%

## ECONOMIC EFFECTS

Section 15131 of the CEQA Guidelines states:

“Economic or social information may be included in an EIR or may be presented in whatever form the agency desires.

- (a) Economic or social effects of a project shall not be treated as significant effects on the environment. But rather, an EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the

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<sup>1</sup> State of California Employment Development Department, Labor Market Information. Accessed June 2019 at: [https://www.labormarketinfo.edd.ca.gov/file/lfmonth/visa\\$pbs.pdf](https://www.labormarketinfo.edd.ca.gov/file/lfmonth/visa$pbs.pdf).

<sup>2</sup> U.S. Census Bureau, 2010 Demographic Profile Data. Accessed June 2019 at: <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.



- project to physical changes caused in turn by the economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.
- (b) Economic or social effects of a project may be used to determine the significance of physical changes caused by the project. For example, if the construction of a new freeway or rail line divides an existing community, the construction would be the physical change, but the social effect on the community would be the basis for determining that the effect would be significant. As an additional example, if the construction of a road and the resulting increase in noise in an area disturbed existing religious practices in the area, the disturbance of the religious practices could be used to determine that the construction and use of the road and the resulting noise would be significant effects on the environment. The religious practices would need to be analyzed only to the extent to show that the increase in traffic and noise would conflict with the religious practices. Where an EIR uses economic or social effects to determine that a physical change is significant, the EIR shall explain the reason for determining that the effect is significant.
- (c) Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the EIR. If information on these factors is not contained in the EIR, the information must be added to the record in some other manner to allow the agency to consider the factors in reaching a decision on the project.”<sup>3</sup>

### Economic and Social Benefits of the Proposed Project

The proposed Project will provide multiple economic and social benefits as follows:

- Addition of 20 new permanent jobs;
- Production of construction materials (asphalt and concrete) to support roadway improvements and other construction projects in the County of Tulare;
- Reduction of air quality impacts (that is, in the form of air pollutants avoided to extract and transport raw material);
- Decrease raw material extraction through recycling of asphalt and concrete for re-use;
- Increase diversion to landfills through recycling of asphalt and concrete; and
- Increase conservation, reduction, and efficiency of energy usage (that is, in the form of electricity, natural gas, gasoline, and diesel fuel used to produce/transport finished products).

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<sup>3</sup> State of California, Natural Resources Agency, Guidelines for the Implementation of the California Environmental Quality Act (CEQA). Section 15131. Accessed in June 2019 at: [http://resources.ca.gov/ceqa/docs/2018\\_CEQA\\_FINAL\\_TEXT\\_122818.pdf](http://resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf).



## **SOCIAL EFFECTS**

### Environmental Justice

“The basis for environmental justice lies in the Equal Protection Clause of the U.S. Constitution. The Fourteenth Amendment expressly provides that the states may not “deny to any person within [their] jurisdiction the equal protection of the laws” (U.S. Constitution, amend. XIV, Section1).

On February 11, 1994, President Clinton signed Executive Order (E.O.) 12898, titled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.” The executive order followed a 1992 report by the U.S. Environmental Protection Agency (U.S. EPA) indicating that “[r]acial minority and low-income populations experience higher than average exposures to selected air pollutants, hazardous waste facilities, and other forms of environmental pollution.” Among other things, E.O. 12898 directed federal agencies to incorporate environmental justice into their missions.”<sup>4</sup>

Although the EIR identifies some potentially significant impacts that could result from the proposed Project, the EIR also indicates they can all be reduced or avoided through the adoption and implementation of project design features and feasible and reasonable Mitigation Measures. The Project is intended to provide single-family and multi-family housing that will be available for purchase and/or rent. Therefore, the residential development will not adversely impact low-income and/or minority populations.

### Inappropriateness of Affordable Housing

The project does not include a land use change from agricultural nor does it propose to add or remove any affordable housing. In addition, the project site is not suitable for affordable housing. Affordable housing projects require high-densities to maintain economic and financial viability. Low densities typically do not result in enough income volume to pay for the cost of construction. In addition, the project site is not located adjacent to a bus line or within the central portion (downtown) of a community, which would place additional hardships and increase the cost of living for potential low-income residents.

### Appropriateness of Location

The project site is located in an agricultural area with adequate access to major north-south and east-west highways. The site is zoned agricultural but was previously used as a concrete plant. The site is generally surrounded by agricultural uses, with other commercial/industrial uses in the vicinity. The nearest residential unit is located approximately 1,000 feet to the north. This location is a favorable location because it is centrally located in the County, it is away from substantial sensitive land uses and is proximate to major County highways.

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<sup>4</sup> State of California, General Plan Guidelines 2003. Page 22. Accessed June 2019 at: [http://opr.ca.gov/docs/General\\_Plan\\_Guidelines\\_2003.pdf](http://opr.ca.gov/docs/General_Plan_Guidelines_2003.pdf).



## GROWTH-INDUCING EFFECTS

As outlined in the CEQA Guidelines § 15126.2 (e), growth-inducing impact of the proposed Project should “[d]iscuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.”<sup>5</sup>

Generally, growth inducing impacts are a result of very large businesses or very large housing developments. A large influx of jobs or people would require additional services which could potentially induce growth related impacts. The proposed Project involves an industrial-type use that is allowed by the zoning classification at the Project location. Although the proposed Project is estimated to result in up to 20 new jobs, most of these are low skill jobs and would be available to any able bodied person. As these jobs will not require high skilled labor, it will not be necessary to recruit higher skilled person beyond the region of the Project and it is anticipated that the majority of new employees will be current residents within or near Visalia and/or the County. As such, the proposed Project will not significantly induce growth. See summary in **Table 6-3**.

<b>Table 6-3</b> <b>Growth Impacts</b>	
Potential Growth Inducing Impacts	<i>Discussion</i>
Economic/Population Growth	<i>The proposed Project will result in up to 20 new jobs, which will result in increased economic growth. Although the proposed Project will result in an economic benefit for Tulare County, the proposed Project will not induce substantial growth.</i>
Foster the Construction of Additional Housing	<i>The Proposed Project will not result in a need for additional housing.</i>
Other Activities	<i>The proposed Project will not include other growth related activities.</i>

As noted in **Table 6-3**, the Project would result in ***Less Than Significant Growth-Inducing Impacts***.



## REFERENCES

State of California Employment Development Department, Labor Market Information. Accessed June 2019 at: [https://www.labormarketinfo.edd.ca.gov/file/1fmonth/visa\\$pd\\$pd.pdf](https://www.labormarketinfo.edd.ca.gov/file/1fmonth/visa$pd$pd.pdf).

State of California, General Plan Guidelines 2003. Accessed June 2019 at: [http://opr.ca.gov/docs/General\\_Plan\\_Guidelines\\_2003.pdf](http://opr.ca.gov/docs/General_Plan_Guidelines_2003.pdf).

State of California, Natural Resources Agency, Guidelines for the Implementation of the California Environmental Quality Act (CEQA). Accessed in June 2019 at: [http://resources.ca.gov/ceqa/docs/2018\\_CEQA\\_FINAL\\_TEXT\\_122818.pdf](http://resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf)

Tulare County Housing Element 2015 Update, Adopted November 17, 2015; Certified by State of California Department of Housing and Community Development on December 9, 2015.

Tulare County General Plan 2030 Update and Final EIR adopted by the Board of Supervisors, August 28, 2012, Resolution No. 2012-0699.

United States Census Bureau, 2010 Demographic Profile Data. Accessed June 2019 at: <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.



# Immitigable Impacts

## Chapter 7

### NO ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

Under CEQA Guidelines §15126.2 (b), “[w]here there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described.”<sup>1</sup> This analysis should include a description of any significant impacts, including those which can be mitigated but not reduced to a level of insignificance.

The proposed Project is anticipated to result in *Significant and Unavoidable Impacts* to the Air Quality resource. All other impacts have been found to be Less Than Significant, or have been mitigated to a level considered Less Than Significant.

Based upon the information contained in this Draft Environmental Impact Report and supporting conclusions contained in studies and/or other referenced information, it is the RMA’s conclusion that the public benefits of the Project, including benefits to greenhouse gas emission, reduction in solid waste, reduce development pressure on agriculture, and increased employment, outweigh any negligible impacts to the environment.

### NO IRREVERSIBLE IMPACTS

Under CEQA Guidelines §15126.2 (c), “[u]ses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified. (See Public Resources Code section 21100.1 and Title 14, California Code of Regulations, section 15127 for limitations to applicability of this requirement.)”<sup>2</sup>

The resources committed to the proposed Project are standard resources necessary for the construction and operation of an asphalt and concrete batch plant. Potential minimal impacts would occur during the construction-related phase and once the site is developed. As noted in applicable resource sections, the proposed Project would be required to comply with local, state, and federal permitting requirements and operational practices, including air quality and greenhouse gas emission reductions (for example, through conservation of electricity and water

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<sup>1</sup> CEQA Guidelines, Section 15126.2 (b).

<sup>2</sup> Ibid. 15126.2 (c).



and compliance with ARB's truck regulations), the proposed Project would not result in any irreversible life-cycle costs. The proposed Project will be in compliance with the goals of the Climate Change Scoping Plan that outlines the State's GHG reductions strategy.

## **STATEMENT OF OVERRIDING CONSIDERATIONS**

### Authority to Approve Project Despite Significant Effects

As contained in CEQA Guidelines §15043, “[a] public agency may approve a project even though the project would cause a significant effect on the environment, if the agency makes a fully informed and publicly disclosed decision that:

- (a) There is no feasible way to lessen or avoid the significant effect (see Section 15091); and
- (b) Specifically identified expected benefits from the project outweigh the policy of reducing or avoiding significant environmental impacts of the project. (see Section 15093)”<sup>3</sup>

When approving a project pursuant to § 15043, an agency must prepare a statement of overriding considerations. As noted in CEQA Guidelines § 15093, “CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable.”<sup>4</sup>

“When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.”<sup>5</sup>

“If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned in the notice of determination. This statement does not substitute for, and shall be in addition to, findings required pursuant to Section 15091.”<sup>6</sup>

### Overriding Considerations for the Proposed Project

Based on the analysis contained in this Draft EIR, air quality-related environmental effects resulting from mobile sources (heavy-duty truck travel) will remain significant and effective mitigation is not practicably or economically feasible. Tulare County concludes that there are no

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<sup>3</sup> CEQA Guidelines, Section 15043.

<sup>4</sup> Ibid. 15093 (a).

<sup>5</sup> Ibid. 15093 (b).

<sup>6</sup> Ibid. 15093 (c).



feasible alternatives that can reduce this potentially significant and unavoidable impact to a less than significant level. Furthermore, the Project's merits and objectives are discussed in the Project Description (Chapter 2) and are found to be consistent with the intent of Tulare County General Plan 2030 Update. In addition, the Project's merits would outweigh any unavoidable and inmitigable impacts warranting a Statement of Overriding Considerations.

#### Finding of No Feasible Alternatives

CEQA section 21061.1 defines "feasibility" as involving a balancing of various economic, environmental, social, and technological factors.

The primary purpose of the proposed Project is to establish and operate an asphalt and concrete batch plant in the County of Tulare to serve new developments and road maintenance activities within the County. This DEIR has analyzed potential impacts in accordance with CEQA standards and outlines appropriate mitigations in the instance where the proposed Project could cause potential significant impacts upon resources.

**Air Quality:** As noted in Chapter 3.3 Air Quality, the Project is consistent with the assumptions and emissions inventories of the applicable AQP. Consultation with the Air District, and implementation of County policies and compliance with Air District rules and regulations ensure that potential impacts from the Project's stationary source emissions do not exceed the Air District's annual thresholds of significance. However, at maximum production capacity the Project's operational (off-site) mobile source NOx emissions would exceed the significance threshold. Mobile source emissions are under the jurisdiction of the Air Resources Board (ARB). The Applicant's fleet is compliant with current ARB truck regulations, and it is reasonable to assume that all vehicles accessing the Project site comply, and will continue to comply, with ARB regulations. As truck emissions are expected to become cleaner in the future and all heavy-duty truck fleets must have Year 2010 engine models by 2023, the Project-related NOx emissions are also expected to decrease. As the Applicant does not have control over all heavy-duty vehicles entering the site, and other operators are also assumed to be compliant with existing regulation, the overall Project NOx emissions would result in a ***Significant and Unavoidable Cumulative Impact*** to Air Quality.

#### **PROJECT BENEFIT STATEMENTS**

The Project Objectives are also presented in full in Chapter 2 of this DEIR. As noted in Chapter 2, the Applicant is pursuing a Special Use Permit (PSP 18-049) through Tulare County for the following: 1) a concrete batch plant that would produce 100,000 cubic yards (approximately 200,000 tons) of concrete per year for commercial and retail sale; 2) a hot-mix asphalt (HMA) batch plant that would produce 150,000 tons of HMA per year for commercial and retail sale; and 3) recycling of 30,000 tons per year of concrete and asphalt to be crushed into recycle base. The project benefits are described below:



### **Objective 1: Industrial Developments**

Tulare County General Plan Policy LU-5.1 encourages a wide range of industrial development activities in appropriate locations to promote economic development, employment opportunities, and provide a sound tax base. The proposed Project includes industrial development within an area allowable by a Special Use Permit.

### **Objective 2: Compatibility with Surrounding Land Use**

The rural nature of the site, the predominantly surrounding dairy-related uses, the proximity of SR 99, and other factors make this site suitable for the proposed Project uses. As such, potential environmental impacts are, or can be reduced to, less than significant and will not result in significant harmful impacts to adjacent land uses.

### **Objective 3: Storage Screening**

Tulare County General Plan Policy LU-5.3 requires adequate landscaping and screening of industrial storage areas to minimize visual impacts and enhance the quality of the environment. The proposed Project will include provisions or landscaping to obstruct views from surrounding areas.

### **Objective 4: Access**

Tulare County General Plan policy (LU-5.5) requires that industrial-type development be located where there is access from collector or arterial roads, and where industrial/heavy commercial traffic is not routed through residential areas with uses not compatible with such traffic. The proposed Project proposes would be located in an area that contains only scattered rural residences and is near two major highways (SR 99 and SR 198). Access to and from the site for heavy duty trucks will be on roadways that are planned for such use.

### **Objective 5: Practice of Recycling Concrete**

According to the CalRecycle's (Board) 2008 Statewide Waste Characterization Study, "Asphalt and concrete represent over 977,000 tons of disposal or around 2.4 percent" of all waste material in the State of California.<sup>7</sup> "The use of recycled aggregate can save money for local governments and other purchasers, create additional business opportunities, save energy when recycling is done on site, conserve diminishing resources of urban aggregates, and help local governments meet the diversion goals of AB 939."<sup>8</sup> "In 2011, California set an ambitious goal of 75 percent recycling, composting or source reduction of solid waste by 2020."<sup>9</sup> For recycling and waste

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<sup>7</sup> California Integrated Waste Management Board (Cal Recycle). "Contractor's Report to the Board. California 2008 Statewide Waste Characterization Study". Table ES-3 Composition of California's Overall Disposed Waste Stream by Material Type. Page 6. Prepared by Cascadia Consulting Group. August 2009. Accessed June 2019 at: <https://www2.calrecycle.ca.gov/Publications/Details/1346>.

<sup>8</sup> Ibid.

<sup>9</sup> CalRecycle. California's 75 Percent Initiative: Defining the Future. Accessed June 2019 at: <https://www.calrecycle.ca.gov/calendar/75percent>. Accessed January 2019.



prevention, each agency is required to establish a goal for diversion of solid waste from landfilling or incineration. In addition there is the added cost for disposing concrete that results in greater tipping fees. Therefore, the proposed Project's reuse of recycled concrete and other material is beneficial.

#### **Objective 6: Efficient Business Operations**

The proposed Project is intended to implement Applicant's strategic business plan by planning, designing, constructing, and operating a facility which is economically, technologically and environmentally feasible.

#### **Project Benefit # 1): Increase Availability of Construction Materials**

The Project will produce construction materials to support roadway improvements and other construction projects in the County of Tulare.

#### **Project Benefit # 2: Job Creation**

The Project will create a total of 15-20 new full time jobs for Tulare County residents.

#### **Project Benefit #3) Annual Maintenance Fee**

Applicant shall pay a \$500,000 fair share exaction for roadway improvements in the County of Tulare. The mechanism for payment of the fair share payment shall be established prior to Project approval.

#### **Project Benefit # 4): Conservation of Mineral Resources**

The Project includes diversion from landfills and recycling of 30,000 tons annually of asphalt and concrete. The recycled asphalt and concrete will be crushed to be used as base material. Recycling asphalt and concrete also results in conservation of virgin (raw) material.

#### **Project Benefit # 5): Implementation of Countywide 2030 General Plan Policies**

Tulare County's General Plan Policies that are in with the Project's purpose and objectives are included in each CEQA Checklist Resource chapter contained in Chapters 3-1 thru 3-21. One hundred six (106) General Policies apply to this Project.

#### **Project Benefit #6) Aesthetic Improvements**

As a result of Aesthetic Impacts, the Project is required to provide landscaping Landscape screening (with a 5 year grow out schedule to maturity) shall be placed and effectively maintained along the periphery of the Project site to sufficiently screen the Project's structures and activities from the public right-of-way (See **Figure 3.1-3**). Also, the silos used for the



Project are required to be painted in earth-toned colors to allow them to blend into the surrounding scenery to the fullest extent.

## **REFERENCES**

Chapter 3.1 thru 3.21 of this DEIR

Public Resources Code, Sections 2710-2796

CEQA Guidelines, Sections 15043, 15093 (a) (b) (c), and 15126.2 (b) (c)

Tulare County General Plan 2030 Update, August 2012



# Mitigation Monitoring and Reporting Program Chapter 8

This Draft Mitigation Monitoring and Reporting Program (MMRP) has been prepared in compliance with State law and based upon the findings of the Draft Environmental Impact Report (EIR) for the proposed Project. The MMRP lists mitigation measures recommended in the draft EIR for the proposed Project and identifies monitoring and reporting requirements.

The CEQA Public Resources Code Section 21081.6 requires the Lead Agency decision making body is going to approve a project and certify the EIR that it also adopt a reporting or monitoring program for those measures recommended to mitigate or avoid significant/adverse effects of the environment identified in the EIR. The law states that the reporting or monitoring program shall be designed to ensure compliance during project implementation. The MMRP is to contain the following elements:

- **Action and Procedure.** The mitigation measures are recorded with the action and procedure necessary to ensure compliance. In some instances, one action may be used to verify implementation of several mitigation measures.
- **Compliance and Verification.** A procedure for compliance and verification has been outlined for each action necessary. This procedure designates who will take action, what action will be taken and when and by whom and compliance will be monitored and reported and to whom it will be report. As necessary the reporting should indicate any follow-up actions that might be necessary if the reporting notes the impact has not been mitigated.
- **Flexibility.** The program has been designed to be flexible. As monitoring progresses, changes to compliance procedures may be necessary based upon the recommendations by those responsible for the MMRP. As changes are made, new monitoring compliance procedures and records will be developed and incorporated into the program

**Table 8-1** presents the Mitigation Measures identified for the proposed Project in this EIR. Each Mitigation Measure is identified by the impact number. For example, 4-1 would be the first Mitigation Measure identified in the Biological analysis of the Draft EIR.

The first column of **Table 8-1** identifies the Mitigation Measure. The second column, entitled “Monitoring Timing/Frequency,” identifies the time the Mitigation Measure should be initiated and the frequency of the monitoring that should take place to assure the mitigation is being or has been implemented to achieve the desired outcome or performance standard. The third column,



“Action Indicating Compliance,” identifies the requirements of compliance with the Mitigation Measure. The fourth column, “Monitoring Agency,” names the party ultimately responsible for ensuring that the Mitigation Measure is implemented. The fifth column, “Person/Agency Conducting Monitoring/Reporting” names the party/agency/entity responsible for verification that the Mitigation Measure has been implemented. The last three columns will be used by the Lead Agency (County of Tulare) to ensure that individual Mitigation Measures have been complied with and monitored.



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Table 8-1 Mitigation Monitoring and Reporting Program							
Mitigation Measure	Monitoring Timing / Frequency	Action Indicating Compliance	Monitoring Agency	Person conducting Monitoring / Reporting	Verification of Compliance		
					Initials	Date	Remarks
<b>AESTHETICS</b>							
<b>3.1-1</b> Landscape screening (with a 5-year grow out schedule to maturity) shall be placed and effectively maintained along the periphery of the Project site to sufficiently screen the Project’s structures and activities from the public right-of-way and views from Avenue 280 and along the western, eastern, and southern boundaries of the Project. A landscaping plan shall be submitted to the Planning Department for review and approval prior to the issuance of building permits	Prior to Issuance of Building Permit.	Verified on submitted site plans.	Tulare County Building Inspector	Tulare County Building Inspector			
<b>3.1-2</b> The silos shall be painted in earth-toned colors to allow them to blend into the surrounding scenery to the fullest extent.	Prior to Issuance of Building Permit.	Verified on submitted site plans.	Tulare County Building Inspector	Tulare County Building Inspector			
<b>AGRICULTURE &amp; FORESTRY RESOURCES</b>							
<b>3.2-1</b> The applicant will be required to create an agricultural land conservation easement at a ratio of 1 acre of developed property for 1 acre of conserved agricultural land (a 1:1 ratio). This amount of 1:1 will be represented by 19.33 acres within the County. Any replacement acreage will be to the satisfaction of the Planning Director of Tulare County. The applicant will purchase an agricultural land conservation easement, of like agricultural land within the County, on the entire 19.33 acres to be maintained and kept in agriculture in perpetuity. The “ultimate” agricultural easement shall be placed on other suitable and agriculturally compatible property, of the same soil types and arability, within Tulare County; at a replacement ratio of 1:1, and to be	Prior to Issuance of Building Permit.	Approval of Agricultural Land Conservation Easement.	County of Tulare Planning Department	County of Tulare Planning Department			



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established as an agricultural land conservation easement in perpetuity.							
<b>BIOLOGICAL RESOURCES</b>							
<i>Swainson's hawks and other raptors and migratory birds (including Loggerhead Shrike)</i>							
<b>3.4-1. (Avoidance).</b> In order to avoid impacts to nesting birds, construction will occur, where possible, outside the nesting season, or between September 16 and January 31.	Prior to start of construction.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable.	County of Tulare Planning Department	Field survey by a qualified Biologist.			
<b>3.4-2. (Pre-construction surveys).</b> If construction must occur during the nesting season (February 1-September 15), a qualified biologist will conduct pre-construction surveys for active bird nests within 10 days of the onset of project initiation. Nest surveys will include all accessible areas on the project site and within 250 feet of the project site for tricolored blackbird, loggerhead shrike, and other migratory birds; within 500 feet for non-listed raptors; and 0.5 miles for Swainson's hawks. Inaccessible areas will be scanned with binoculars or spotting scope, as appropriate. If no active nests are found within the survey area, no further mitigation is required.	Prior to start of construction.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable.	County of Tulare Planning Department	Field survey by a qualified Biologist.			
<b>3.4-3. (Establish Buffers).</b> If active nests are found within the survey areas a qualified biologist will establish appropriate no-disturbance buffers based on species tolerance of human disturbance, baseline levels of disturbance, and barriers that may separate the nest from construction disturbance. These buffers will remain in place until the breeding season has ended or until the qualified biologist has determined that the birds	Prior to construction-related activities.	Retention of professional biologist/ongoing monitoring/ submittal of Report of Findings, if applicable	County of Tulare Planning Department	Qualified biologist.			



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have fledged and are no longer reliant upon the nest or parental care for survival.							
<b>GEOLOGY AND SOILS</b>							
<b>3.7-1</b> Submit to the Tulare County RMA Director a grading and construction plan that highlights the planned locations of excavations or other ground alterations that would result in the exposure of soils at depths greater than 5 feet below existing grade within the project site.	Prior to construction-related activities.	Approval by Tulare County RMA	County of Tulare Planning Department	County of Tulare Planning Department			
<p><b>3.7-2 a)</b> In the event any paleontological resources are exposed or discovered during subsurface excavation or construction in areas not being monitored by the professional paleontologist, ground-disturbing operations shall stop within 25 feet of the find and the professional paleontologist shall be contacted immediately to implement all applicable provisions of the approved Paleontological Monitoring and Recovery Plan.</p> <p><b>b)</b> If paleontological resource are encountered, retain the services of a qualified professional paleontologist as recognized by the Museum of Paleontology at U.C. Berkeley.</p> <p><b>c)</b> If paleontological resource are encountered, authorize the professional paleontologist to prepare a Paleontological Monitoring and Recovery Plan, following the guidelines of the Society of Vertebrate Paleontology (1995), and submit the Plan to the County for review and approval prior to ground disturbance.</p> <p><b>d)</b> If paleontological resource are encountered, authorize the professional paleontologist to visually monitor the planned excavations that extend deeper than five (5) feet below existing grade at the project site. No monitoring of excavation or construction by the</p>	During construction-related activities.	Daily or as needed throughout the construction period if suspicious resources are discovered	County of Tulare Planning Department	County of Tulare Planning Department			



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professional paleontologist is required outside the identified deep excavation areas within the project site. <b>e)</b> If paleontological resource are encountered, provide advance authorization to the professional paleontologist to implement all applicable provisions of the approved Paleontological Monitoring and Recovery Plan to ensure protection, preservation, and proper recovery of any paleontological resources, including reporting requirements.							
<b>HAZARDS AND HAZARDOUS MATERIALS</b>							
<b>8-1</b> The Project proponent shall prepare a Hazardous Materials Business Plan for review and approval by the Tulare County Health & Human Services Agency, Environmental Health Services Division. The Plan shall be in effect prior to issuance of a building permit for the proposed expansion.	Prior to construction.	Approval by Tulare County Environmental Health.	County of Tulare Planning Department	County of Tulare Planning Department			
<b>8-2</b> Because the facility proposes an above ground storage capacity over 1,320 gallons of a petroleum based product, the site shall be required to prepare a Spill Prevention Control and Countermeasure (SPCC) plan in accordance with the U.S. Code of Federal Regulations, Title 40, Part 112 (40CFR112) prior to the final inspection of the building permit. The plan shall be submitted to the Tulare County Environmental Health Services Division. The applicant shall contact the TCEHSD's CUPA inspector at (559) 624-7400 for any additional questions.	Prior to construction.	Approval by Tulare County Environmental Health.	County of Tulare Planning Department	County of Tulare Planning Department			
<b>NOISE</b>							
<b>13-1</b> Construction-related activities (e.g., set-up), excluding emergency work and activities that would result in a safety concern to the public or construction workers, shall be limited to between the hours of 7:00 A.M. and 7:00 P.M. Construction-related activities (e.g.,	During Construction	Daily or as needed throughout the construction	County of Tulare Planning Department	County of Tulare Planning Department			



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set-up) activities shall be prohibited on Sundays and federal holidays.							
<b>13-2</b> Construction-related activities (e.g., set-up) equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and shrouds, in accordance with manufacturers' recommendations.	During Construction	Daily or as needed throughout the construction	County of Tulare Planning Department	County of Tulare Planning Department			
<b>TRANSPORTATION</b>							
<b>17-1.</b> The Project Applicant will be responsible for paying an equitable share fee as determined between the Applicant and Caltrans based on the trips identified in Table 3.17-1 or through another methodology agreed upon by Applicant and Caltrans. Applicant and Caltrans will determine terms and timing of the equitable share.	Prior to Issuance of Building Permit.	Payment of Fees	Tulare County Planning Department & Caltrans	Tulare County Planning Department			
<b>17-2.</b> The Project Applicant will pay their fair share towards the necessary maintenance based on a proportionate share calculation based on vehicle impact to the structural section for this roadway segment between SR 99 and the Tulare/Kings County line. This shall be made a Condition of Approval of the Project.	Prior to Issuance of Building Permit.	Payment of Fees	Tulare County Planning Department	Tulare County Planning Department			
<b>TRIBAL CULTURAL RESOURCES</b>							
<b>18-1.</b> In the event that historical, archaeological or paleontological resources are discovered during site excavation, the County shall require that grading and construction work on the Project site be immediately suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. In this event, the property owner shall retain a qualified archaeologist/paleontologist to provide recommendations for measures necessary to protect any site determined to contain or constitute an historical resource, a unique archaeological resource, or a unique paleontological resource or to undertake data recover, excavation analysis, and curation of archaeological or paleontological materials. County staff shall consider	During Construction	Daily or as needed throughout the construction period if suspicious resources are discovered	Tulare County Planning Department	A qualified archaeologist shall document the results of field evaluation and shall recommend further actions that shall be taken to mitigate for unique resource or human remains found, consistent			



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such recommendations and implement them where they are feasible in light of Project design as previously approved by the County.				with all applicable laws including CEQA.			
<p><b>18-2.</b> Consistent with Section 7050.5 of the California Health and Safety Code and (CEQA Guidelines) Section 15064.5, if human remains of Native American origin are discovered during Project construction, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the Native American Heritage Commission (Public Resources Code Sec. 5097). In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:</p> <ol style="list-style-type: none"> <li>1. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: <ol style="list-style-type: none"> <li>a. The Tulare County Coroner/Sheriff must be contacted to determine that no investigation of the cause of death is required; and</li> <li>b. If the coroner determines the remains to be Native American: <ol style="list-style-type: none"> <li>i. The coroner shall contact the Native American Heritage Commission within 24 hours.</li> <li>ii. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.</li> <li>iii. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods</li> </ol> </li> </ol> </li> </ol>	During Construction	Daily or as needed throughout the construction period if suspicious resources are discovered	Tulare County Planning Department	A qualified archaeologist shall document the results of field evaluation and shall recommend further actions that shall be taken to mitigate for unique resource or human remains found, consistent with all applicable laws including CEQA.			



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as provided in Public Resources Code section 5097.98, or							
2. Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.							
a. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.							
b. The descendant fails to make a recommendation; or							
c. The landowner or his authorized representative rejects the recommendation of the descendent.							



# Report Preparation

## Chapter 9

### PERSONS WHO PREPARED THIS REPORT

Key persons from the County of Tulare and the consulting firms that contributed to preparation of the Draft Environmental Impact Report (Draft EIR) are identified below:

**LEAD AGENCY: COUNTY OF TULARE RESOURCE MANAGEMENT AGENCY**

5961 South Mooney Blvd.  
Visalia, CA 93277



Jason T. Britt	County Administrative Officer
Reed Schenke	RMA Director/Environmental Assessment Officer
Michael Washam,	Associate Director / Economic Development and Planning Branch
Aaron Bock	Assistant Director / Economic Development and Planning Branch
Johnny Wong	Chief, Economic Development and Planning Branch
Hector Guerra,	Chief, Environmental Planning
Michael Winton	Engineer IV, Public Works Branch
Jessica Willis	Planner IV
Charles Przybylski	Planner IV
Cheng Chi	Planner I
Russell Kashiwa	Planning Technician

### **TECHNICAL REPORTS PREPARED BY:**

**ASM Affiliates, Inc. - Phase I Survey, 7763 Avenue 280, Visalia, Tulare County, California**

- David S. Whitley, Ph.D., RPA
- Peter A. Carey, M.A. RPA



**Alta Environmental – Health Risk Assessment, SJVAPCD Hot Mix Asphalt Plant Permit Application, SJVAPCD Stationary Concrete Batch Plant Permit Application**

- Chris Waller, Director of EHS & Air
- Diana Nguyen, Associated Consultant, EHS & Air

**Live Oak Associates, Inc. – “Biological Evaluation Visalia Concrete/Asphalt Batch Plant Project Tulare County, California”**

- Austin Pearson, Director of Ecological Services
- Jeff Gurule, Senior Project Manager and Staff Ecologist

**Mason GeoScience. – “Geology and Soils Report for Proposed Concrete and Asphalt Batch Plant” and “Hydrology and Water Quality Report for Proposed Concrete and Asphalt Batch Plant”**

- Fred Mason, Professional Geologist No. 8442, Certified Engineering Geologist No 2660, Certified Hydrogeologist No. 996

**Peters Engineering Group – “Traffic Impact Study Proposed Concrete and Asphalt Batch Plant Avenue 280 West of State Route 99 Tulare County, California”**

- John Rowland, Professional Engineer No. 2484, Traffic Engineer



## **APPENDIX A**

### **AIR QUALITY AND GREENHOUSE GAS ANALYSES**



## **APPENDIX A.1**

# **AIR QUALITY AND GREENHOUSE GAS TECHNICAL MEMORANDUM**





# RESOURCE MANAGEMENT AGENCY

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Aaron R. Bock

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Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

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## TECHNICAL MEMORANDUM

### AIR QUALITY AND GREENHOUSE GASES

**DATE:** December 10, 2019

**TO:** Hector Guerra, Chief Environmental Planner

**FROM:** Jessica Willis, Planner IV

**SUBJECT:** Air Quality and Greenhouse Gas Assessments for the Dunn Asphalt and Concrete Batch Plant (SCH# 2019011039)

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#### PROJECT DESCRIPTION

The Applicant is seeking to operate an asphalt and concrete batch plant (including concrete recycling) at 7763 Avenue 280 (just west of the City of Visalia) which is located along the south side of Avenue 280, west of State Route 99 (SR 99) and east of Road 76, in an unincorporated area of Tulare County (see Figures 1 to 3). The Applicant is pursuing a Special Use Permit (PSP 18-049) through Tulare County for the following: 1) permanent establishment of a hot-mix asphalt (HMA) batch plant that would produce 150,000 tons of HMA per year on the proposed site; 2) recycling of 30,000 tons of concrete and asphalt per year to be crushed into recycled base on the proposed site (reclaimed asphalt pavement (RAP) plant); and 3) permanent establishment of a concrete batch plant that would produce 100,000 cubic yards (or approximately 200,000 tons) of concrete per year on the proposed site.

When operational, the proposed Project would utilize approximately 15-20 employees and include an approximate 1,000 square foot office. The Applicant is proposing to operate Monday-Friday between 6:00 a.m. to 4:00 p.m., and 7:00 a.m. to 12:00 p.m. (noon) on Saturdays. Depending upon demand, summer hours may begin earlier than 6:00 a.m. Site access will be provided via one main driveway connecting to the south side of Avenue 280 approximately 1,000 feet east of Road 76. A majority of the trips will occur outside of peak hour times (i.e., between 7:00 a.m. and 9:00 a.m. (estimated at 20% of total trips per day), and between 4:00 and 6:00 p.m. (estimated at 10% of total trips per day).<sup>1</sup>

#### PURPOSE AND NEED FOR ASSESSMENT

This document is intended to assist County of Tulare (County) Resource Management Agency (RMA) staff in the preparation of the Air Quality and Greenhouse Gas chapters of the Environmental Impact Report (EIR) being prepared for the proposed Dunn Asphalt and Concrete

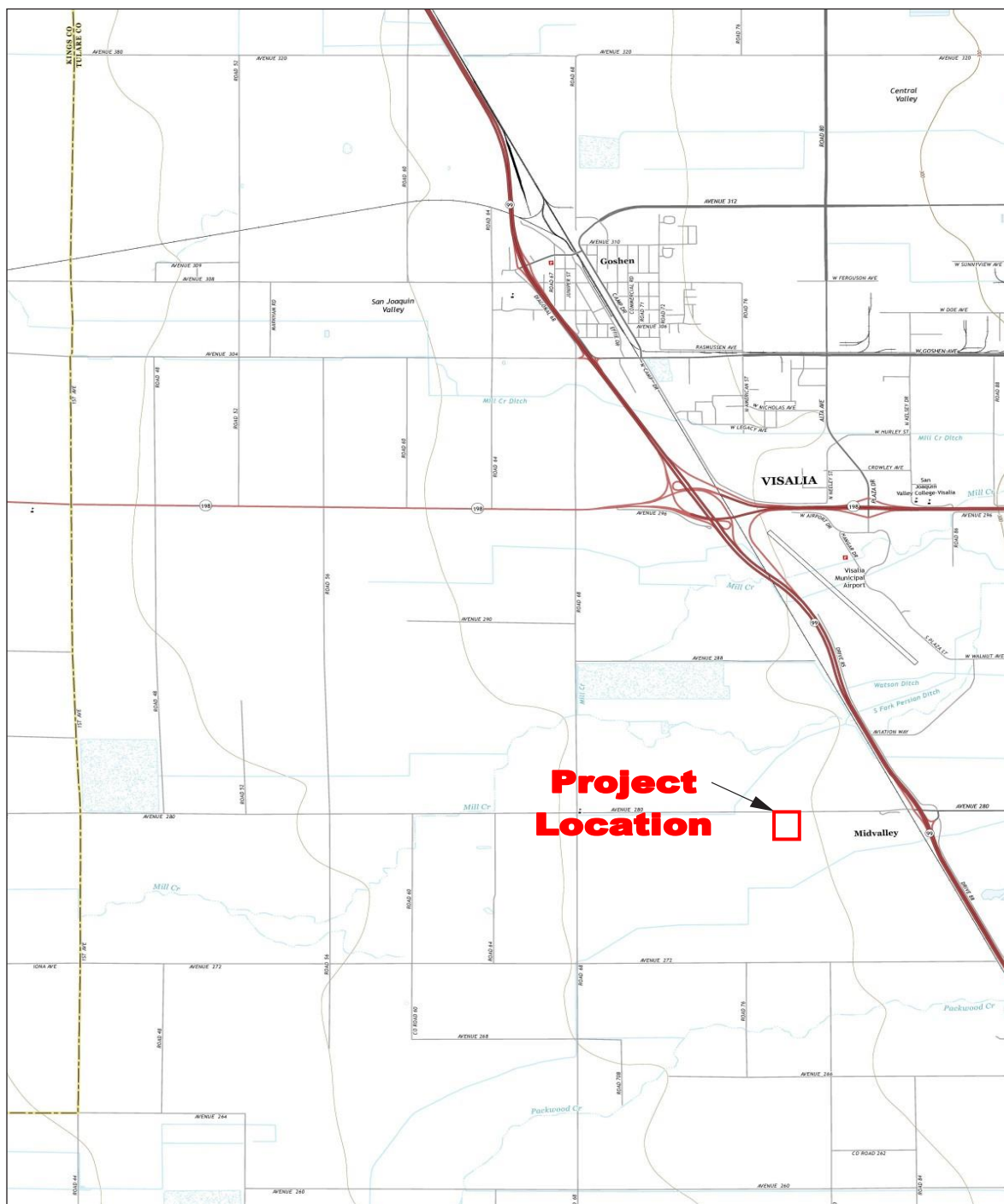
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<sup>1</sup> "Traffic Impact Study, Proposed Concrete and Asphalt Batch Plant Avenue 280 West of State Route 99 Tulare County, California" (TIS) report September 2018. Table 4. Page 7. Prepared by consultant Peters Engineering Group and included in Appendix "F" of this DEIR.



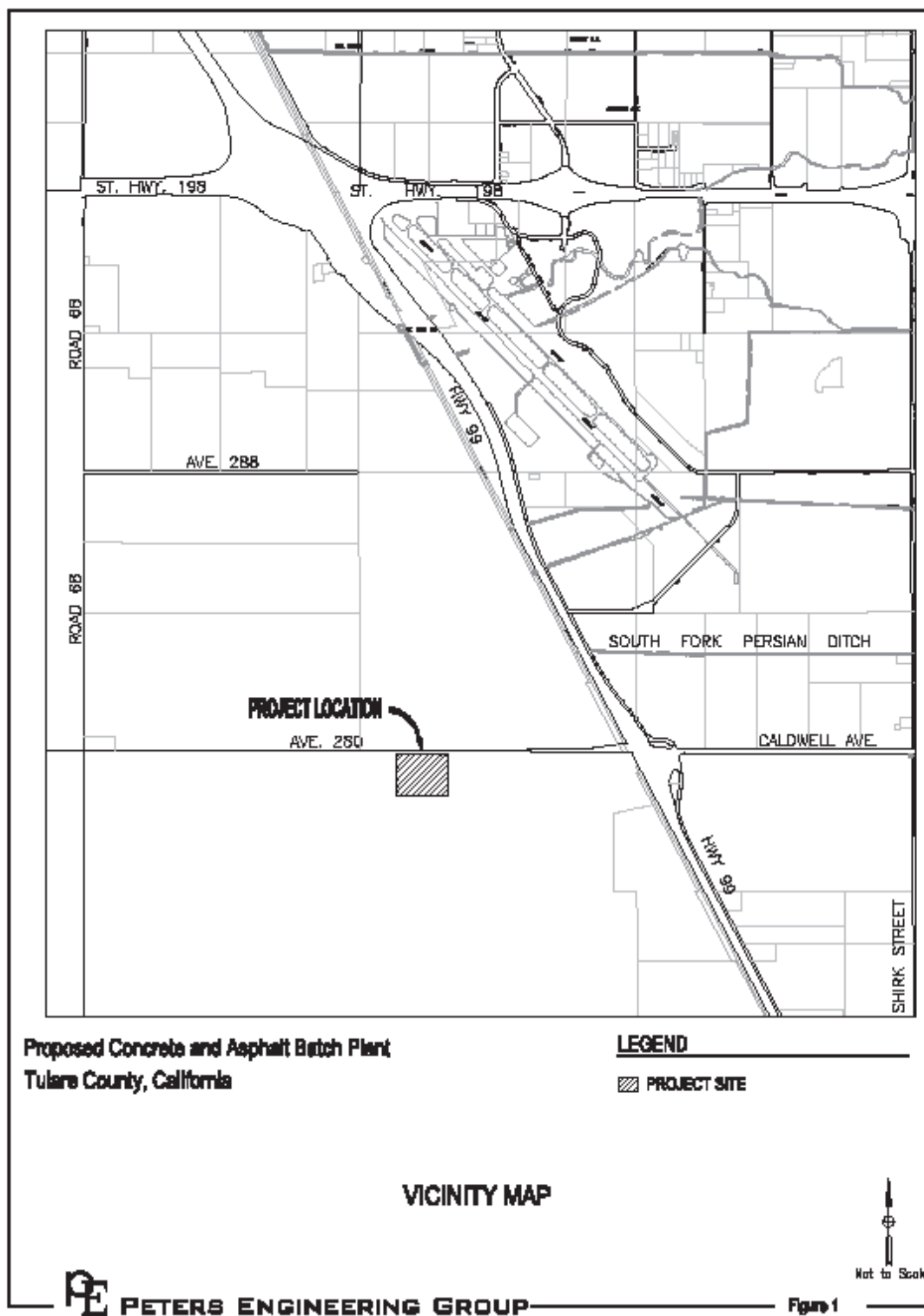
Batch Plant (Project). The assessments have been conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.) and are intended to provide the County with sufficient detail regarding potential impacts of Project implementation and to identify mitigation measures, if necessary, to reduce potentially significant impacts.

**Figure 1: Regional Vicinity**



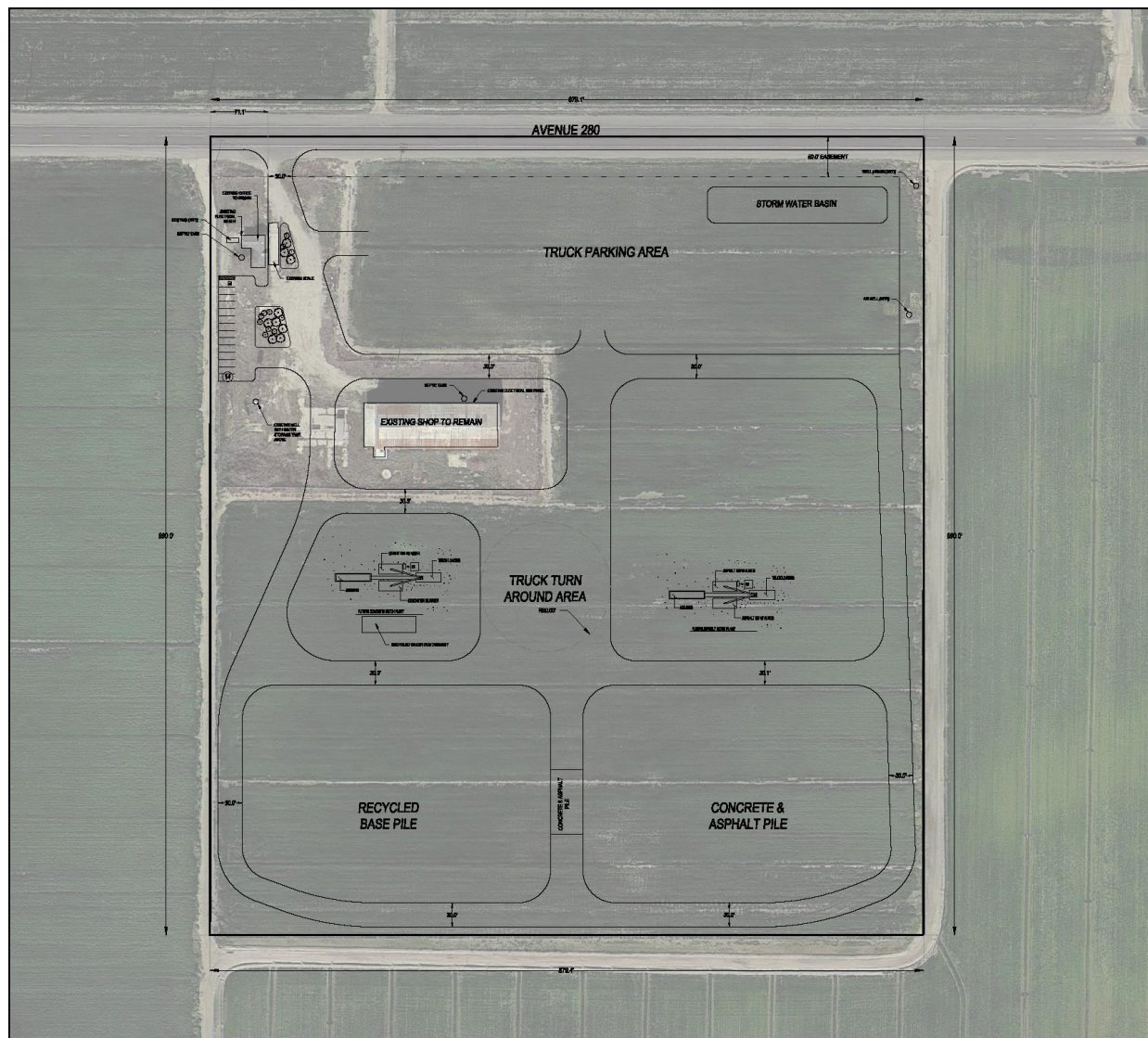


**Figure 2: Project Location**





### Figure 3: Aerial Site Plan





## **Air Quality Assessment**

The air quality assessment provided in this document was prepared to evaluate whether the air pollutant emissions generated from implementation of the Project would cause significant impacts to air quality and nuisance odor or health risks to nearby receptors. The estimated emissions are compared to federal and state ambient air quality standards (AAQS) and the thresholds of significance established by the San Joaquin Valley Unified Air Pollution Control District (Air District). The methodology for the air quality assessment follows Air District recommendations for quantification of emissions and evaluation of potential impacts as provided in their guidance document *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI), adopted March 19, 2015.<sup>2</sup>

## **Greenhouse Gas Assessment**

The greenhouse gas (GHG) assessment provided in this document was prepared to evaluate whether the estimated GHG emissions generated from the implementation of the Project would cause significant impacts on global climate change. The methodology follows Air District recommendations for quantification of GHG emissions and evaluation of potential impacts on global climate change as provided in the GAMAQI, as well as their guidance and policy documents *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Project under CEQA* (Guidance for Agencies) and *District Policy—Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency* (Air District Policy), adopted December 17, 2009.<sup>3,4</sup>

## **Emissions Analyses**

The Project will include construction and operational emissions. On-site construction activities include site preparation, grading, building construction (installation of the HMA batch plant, RAP plant, and concrete batch plant), paving, and architectural coatings. Off-site construction activities include construction equipment and product hauling and construction employee travel trips. Operational emissions include both permitted and non-permitted equipment and activities. On-site operational activities include the operation of the HMA batch plant, RAP plant, and concrete batch plant. Off-site operational activities include transport of raw material from the source to the site, transport of finished product to end users, and employee travel trips.

Consultant Alta Environmental prepared emissions calculations for the Project's on-site emissions sources, including processing equipment, mobile sources (on-site vehicle traffic), and stockpiles. These analyses are provided in Appendix A of the DEIR and include the Authority to Construct (ACT) applications prepared for the HMA plant, RAP plant, and concrete plant, the Health Risk Assessment (HRA) prepared for the facility, and a determination of the applicability of an Ambient

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<sup>2</sup> Air District. *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI). March 19, 2015. Accessed November 2019 at: [http://www.valleyair.org/transportation/GAMAQI\\_3-19-15.pdf](http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf).

<sup>3</sup> Air District. *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Project under CEQA* (Guidance for Agencies). December 17, 2009. Accessed November 2019 at: <https://www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf>.

<sup>4</sup> Air District. *District Policy — Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency* (Air District Policy). Accessed November 2019 at: <https://www.valleyair.org/Programs/CCAP/12-17-09/2%20CCAP%20-%20FINAL%20District%20Policy%20CEQA%20GHG%20-%20Dec%2017%202009.pdf>.



Air Quality Analysis (AAQA). RMA staff prepared emissions calculation for the Project's off-site vehicle emissions, including employee trips, raw material transport, and final product sales.

Construction of the HMA, RAP, and concrete batch plants will result in the generation of emissions. Construction-related emissions were estimated using CalEEMod Version 2016.3.2. Construction is expected to take approximately one year with no demolition planned. Default assumptions were used for all inputs, except construction phase duration was changed to match the expected project schedule.<sup>5</sup>

Operation of the HMA, RAP, and concrete batch plants will result in the generation of emissions. Operation-related emissions were assessed based on a 312-day working year (6 days per week, 52 weeks per year), with exception of the stockpiles which are assessed based on a 365-day working year.<sup>6</sup>

**Table 1** identifies construction-related activities and **Table 2** identifies operational activities.

<b>Table 1. Construction-related Activities</b>	
Activity	# of Days
Site Preparation	10
Grading	30
Building Construction	174
Paving	20
Architectural Coating	20
Haul Trips	254
Employee Trips	254
Source: Alta Environmental. Health Risk Assessment. Attachment 2, Section 3.0 Construction Detail.	

<b>Table 2. Operational Activities and Vehicle Trips</b>	
Source	No. of Trips
HMA Plant	
Asphalt Dryer	---
Oil Heater	---
Oil Storage Tanks	---
Silo Filling and Loadout	See HMA Trucks
RAP Cold Feed	---
Oil Delivery Trucks	222
Propane Delivery Trucks	41
Aggregate (sand/gravel) Delivery Trucks	4,800
HMA Trucks (finished product)	6,000
Concrete Batch Plant	
Cement Silo	---
Fly Ash Silo	---
Truck Loading	See Ready Mix Trucks
Aggregate (sand/gravel) Delivery Trucks	6,400
Cement & Fly Ash Delivery Trucks	1,120

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<sup>5</sup> "Health Risk Assessment" (HRA) report. November 7, 2019. Page 4. Prepared by consultant Alta Engineering and included in Appendix "A" of this DEIR.

<sup>6</sup> Ibid. Attachment 1.



<b>Table 2. Operational Activities and Vehicle Trips</b>	
Ready Mix Concrete Delivery Trucks (finished product)	10,000
RAP Plant	
RAP Processing	---
Recycled Material End Dumps	1,023
Recycled Material Delivery Trucks	625
Recycled Base Trucks (finished product)	1,200
Other	
Stockpiles	---
Fuel Trucks (for on-site equipment)	26
Outside Services	250
Other Materials/Services	250
Employee Trips	4,680
Sources: Alta Environmental, Authority to Construct Applications; and Project-specific detail supplied by Applicant	

## SIGNIFICANCE THRESHOLDS

CEQA defines a significant effect on the environment as a “substantial, or potentially substantial, adverse change in the environment,” while the CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project.”<sup>7</sup> To determine if a project would have a significant impact on air quality and climate change, the type, level, and impact of criteria pollutant and GHG emissions generated by the project must be evaluated. To determine if a project would have a significant impact on energy resources, project-related energy consumption must be evaluated. Appendix G of the CEQA Guidelines provides the criteria (as Checklist Items) for evaluating potential impacts on the environment. CEQA Guidelines allow for the establishment of significance thresholds to assist lead agencies in determining whether a project may cause a significant impact.<sup>8</sup> The CEQA Guidelines criteria for air quality, greenhouse gas, and energy resources, as well as the Air District’s significance thresholds and guidance for evaluation of criteria air pollutant and GHG emissions are provided below.

### Air Quality Thresholds

#### *Air Quality Plans*

The Air District has established thresholds of significance for criteria pollutant emissions. These thresholds are based on District New Source Review (NSR) offset requirements for stationary sources. “Stationary sources in the District are subject to some of the toughest regulatory requirements in the nation. Emission reductions achieved through implementation of District offset requirements are a major component of the District’s air quality plans. Thus, projects with emissions below the thresholds of significance for criteria pollutants would be determined to “Not conflict or obstruct implementation of the District’s air quality plan”. ”<sup>9</sup>

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<sup>7</sup> CEQA § 21068 and CEQA Guidelines § 15382.

<sup>8</sup> CEQA Guidelines § 15064 and § 15064.7

<sup>9</sup> Air District, GAMAQI. Section 7.12. Page 65.



The Air District has three sets of significance thresholds based on the source of the emissions. According to the GAMAQI, “The District identifies thresholds that separate a project’s short-term emissions from its long-term emissions. The short-term emissions are mainly related to the construction phase of a project and are recognized to be short in duration. The long-term emissions are mainly related to the activities that will occur indefinitely as a result of project operations.”<sup>10</sup>

Long-term (operational) emissions are further separated into permitted and non-permitted equipment and activities. Stationary (permitted) sources that comply or will comply with Air District rules and regulations are generally not considered to have a significant air quality impact. Specifically, the GAMAQI states, “District Regulation II ensures that stationary source emissions will be reduced or mitigated to below the District’s significance thresholds... District implementation of New Source Review (NSR) ensures that there is no net increase in emissions above specified thresholds from New and Modified Stationary Sources for all nonattainment pollutants and their precursors. Furthermore, in general, permitted sources emitting more than the NSR Offset Thresholds for any criteria pollutant must offset all emission increases in excess of the thresholds....”<sup>11</sup>

The Air District’s significance thresholds are provided in **Table 3**.

<b>Table 3. Air District Criteria Pollutant Significance Thresholds</b>			
<b>Pollutant/ Precursor</b>	<b>Construction Emissions</b>	<b>Operational Emissions</b>	
		<b>Permitted Equipment and Activities</b>	<b>Non- Permitted Equipment and Activities</b>
	<b>Emissions (tpy)</b>	<b>Emissions (tpy)</b>	<b>Emissions (tpy)</b>
<b>CO</b>	100	100	100
<b>NO<sub>x</sub></b>	10	10	10
<b>ROG</b>	10	10	10
<b>SO<sub>x</sub></b>	27	27	27
<b>PM<sub>10</sub></b>	15	15	15
<b>PM<sub>2.5</sub></b>	15	15	15
Source: Air District, GAMAQI, Table 2, page 80; and <a href="http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf">http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf</a> , accessed November 2019.			

### *Air Quality Violations*

“Determination of whether project emissions would violate any ambient air quality standard is largely a function of air quality dispersion modeling. If project emissions would not exceed State and Federal ambient air quality standards at the project’s property boundaries, the project would be considered to not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The need to perform an air quality dispersion modeling analysis for any project (urban development, commercial, or industrial projects) is determined on a case-by-case basis depending on the level of emissions associated with the proposed project. If such modeling is found necessary, the project consultant should check with the District to determine the appropriate model and input data to use in the analysis. Specific information for assessing

<sup>10</sup> Air District, GAMAQI, Section 8.1. Page 75

<sup>11</sup> Air District, GAMAQI, Section 8.2.1. Page 76.



significance, including screening tools and modeling guidance is available on-line at the District's website [www.valleyair.org](http://www.valleyair.org).<sup>12</sup>

“The thresholds of significance for Ambient Air Quality are based on the California Ambient Air Quality Standard (CAAQS) and National Ambient Air Quality Standard (NAAQS). A project would be considered to have a significant impact if its emissions are predicted to cause or contribute to a violation of an ambient air quality standard by exceeding any of the following:

1. Any of the CAAQS, or
2. Any of the NAAQS, and if available, the associated Significant Impact Level (SIL).<sup>13</sup>

**Table 4** provides the California and National Ambient Air Quality Standards.

“The District ISR rule exempts small development projects (see Table 4 [of the GAMAQI]) from project-specific mitigation requirements. The District performed extensive analysis to identify small projects for which additional mitigation is not feasible. For instance, the exemptions include small residential housing developments of less than 50 units and commercial developments of less than 2,000 square feet. All projects on the exemption list emit less than 2 tons per year of either PM<sub>10</sub> or NO<sub>x</sub>, which is substantially lower than the District's 10-ton per year significance thresholds. Furthermore, as the tailpipe emissions from motor vehicles continue to decline, these projects will emit even less today than was estimated in 2005 when this rule was adopted. In addition, two tons per year is expected to result in daily emissions of less than the 100 lbs./day screening level for either NO<sub>x</sub> or PM<sub>10</sub> that the District has concluded that projects under the ISR exemption thresholds will have a less than significant impact on air quality. Consequently, projects below ISR applicability thresholds are not expected to exceed the thresholds of significance for criteria pollutants emissions (see Section 8.3 [of the GAMAQI]). In addition, projects below the ISR applicability thresholds are not expected to violate any air quality standards or contribute substantially to an existing or projected air quality violation and will not exceed the thresholds of significance for ambient air quality. In this case, the District concludes no emission calculation is needed and no ambient air quality analysis is required.”<sup>14</sup>

<b>Table 4. Ambient Air Quality Standards</b>				
<b>Pollutant</b>	<b>Averaging Time</b>	<b>California Standards</b>	<b>National Standards</b>	
		<b>Concentration</b>	<b>Primary</b>	<b>Secondary</b>
<b>Ozone (O<sub>3</sub>)</b>	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	---	Same as Primary
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )	0.070 ppm* (137 µg/m <sup>3</sup> )	
<b>Respirable Particulate Matter (PM<sub>10</sub>)</b>	24 Hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	Same as Primary
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	---	
<b>Fine Particulate Matter (PM<sub>2.5</sub>)</b>	24 Hour	---	35 µg/m <sup>3</sup>	Same as Primary
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	12.0 µg/m <sup>3</sup>	15.0 µg/m <sup>3</sup>
<b>Carbon Monoxide (CO)</b>	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )	---

<sup>12</sup> Air District. GAMAQI. Section 7.13. Page 65.

<sup>13</sup> Air District. GAMAQI. Section 8.4. Page 90.

<sup>14</sup> Air District. GAMAQI. Section 8.4.4. Page 95.



Table 4. Ambient Air Quality Standards				
Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )	---
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )	---	---
Nitrogen Dioxide (NO <sub>2</sub> )	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	100 ppb (188 µg/m <sup>3</sup> )	Same as Primary
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )	0.053 ppm (100 µg/m <sup>3</sup> )	
Sulfur Dioxide (SO <sub>2</sub> )	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	75 ppb (196 µg/m <sup>3</sup> )	---
	3 Hour	---	---	0.5 ppm (1300 µg/m <sup>3</sup> )
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )	0.14 ppm (for certain areas)	---
	Annual Arithmetic Mean	---	0.030 ppm (for certain areas)	---
Lead	30 Day Average	1.5 µg/m <sup>3</sup>	---	---
	Calendar Quarter	---	1.5 µg/m <sup>3</sup> (for certain areas)	Same as Primary
	Rolling 3-Month Average	---	0.15 µg/m <sup>3</sup>	
Visibility Reducing Particles	8 Hour	Extinction of 0.23/km; visibility of 10 miles or more	No National Standards	
Sulfates	24 Hour	25 µg/m <sup>3</sup>		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )		

*\* The standard at the time of the GAMAQI was 0.075 ppm; the standard presented here was finalized on October 26, 2015.*  
*Abbreviations: ppm = parts per million; mg/m<sup>3</sup> = milligram per cubic meter; µg/m<sup>3</sup> = micrograms per cubic meter.*  
*Sources: Air District, GAMAQI, Table 3, page 91; ARB, <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>, accessed November 2019.*

**Table 5** provides the Air District’s ambient air quality analysis (AAQA) screening levels for development projects. For projects that exceed the screening thresholds identified in **Table 5**, the Air District provides further guidance on how to evaluate the 100 pound per day screening level in their guidance document *Ambient Air Quality Analysis Project Daily Emissions Assessment*.<sup>15</sup>

<b>Table 5. AAQA Screening Levels for Development Project</b>	
<b>Development Project Type</b>	<b>Space / Size</b>
Residential	50 dwelling units
Commercial	2,000 square feet
Light Industrial	25,000 square feet
Heavy Industrial	100,000 square feet
Medical Office	20,000 square feet
General Office	39,000 square feet
Educational	9,000 square feet

<sup>15</sup> Air District. *Ambient Air Quality Analysis Project Daily Emissions Assessment* (Guidance document). Accessed November 2019 at: <http://www.valleyair.org/transportation/CEQA%20Rules/Ambient-Air-Quality-Analysis-Project-Daily-Emissions-Assessment.pdf>.



<b>Table 5. AAQA Screening Levels for Development Project</b>	
<b>Development Project Type</b>	<b>Space / Size</b>
Governmental	10,000 square feet
Recreational	20,000 square feet
Transportation / Transit	Construction exhaust emissions equal or exceeding 2.0 tons NO <sub>x</sub> or 2.0 tons PM <sub>10</sub>
<i>Source: Air District. GAMAQI. Table 4. Page 96.</i>	

### *Cumulative Increase in Emissions*

“By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development. Future attainment of State and Federal ambient air quality standards is a function of successful implementation of the District’s attainment plans. Consequently, the District’s application of thresholds of significance for criteria pollutants is relevant to the determination of whether a project’s individual emissions would have a cumulatively significant impact on air quality. A Lead Agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program, including, but not limited to an air quality attainment or maintenance plan that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located [CCR §15064(h)(3)]. Thus, if project specific emissions exceed the thresholds of significance for criteria pollutants the project would be expected to result in a cumulatively considerable net increase of any criteria pollutant for which the District is in non-attainment under applicable Federal or State ambient air quality standards. This does not imply that if the project is below all such significance thresholds, it cannot be cumulatively significant.”<sup>16</sup>

**Table 6** provides the San Joaquin Valley Air Basin attainment status for federal and state ambient air quality standards.

<b>Table 6. San Joaquin Valley Attainment Status</b>		
<b>Pollutant</b>	<b>Designation</b>	
	<b>Federal Standards</b>	<b>State Standards</b>
Ozone—1-hour	No Federal Standard	Nonattainment/Severe
Ozone—8-hour	Nonattainment/Extreme	Nonattainment
PM <sub>10</sub>	Attainment	Nonattainment
PM <sub>2.5</sub>	Nonattainment	Nonattainment
Carbon monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen dioxide	Attainment/Unclassified	Attainment
Sulfur dioxide	Attainment/Unclassified	Attainment
Lead (Particulate)	No Designation/Classification	Attainment
Hydrogen sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility-reducing particles	No Federal Standard	Unclassified

<sup>16</sup> Air District. GAMAQI. Section 7.14. Pages 65-66.



Table 6. San Joaquin Valley Attainment Status		
Vinyl chloride	No Federal Standard	Attainment
Source: Air District, <a href="http://www.valleyair.org/aqinfo/attainment.htm">http://www.valleyair.org/aqinfo/attainment.htm</a> . Accessed November 2019.		

### Exposure Risks

The location of a project is a major factor in determining whether the project will result in localized air quality impacts. The potential for adverse air quality impacts increases as the distance between the source of emissions and receptors decreases. From a health risk perspective, there are two (2) categories of projects that have the potential to cause long-term health risks impacts:

- Type A Projects: Land use projects that will place new toxic sources in the vicinity of existing receptors. This category includes sources of toxic emissions such as gasoline dispensing facilities, asphalt batch plants, warehouse distribution centers, freeways and high traffic roads, and other stationary sources that emit toxic substances.
- Type B Projects: Land use projects that will place new receptors in the vicinity of existing toxic sources. This category includes residential, commercial, and institutional developments proposed in the vicinity of existing sources such as stationary sources, freeways and high traffic roads, rail yards, and warehouse distribution centers.<sup>17</sup>

“Various tools already exist to perform a screening analysis from stationary sources impacting receptors (Type A projects) as developed for the AB2588 Hot Spots and air district permitting programs. Screening tools may include prioritization charts, AERSCREEN and various spreadsheets. For projects being impacted by existing sources (Type B projects), one screening tool is contained in the ARB Handbook: *Air Quality and Land Use Handbook: A Community Health Perspective*. The document includes a table entitled “*Recommendations on Siting New Sensitive Land Uses Such As Residences, Schools, Daycare Centers, Playgrounds, or Medical Facilities*” with recommended buffer distances associated with various types of common sources. If a proposed project is located within an established buffer distance to any of the listed sources, a health risk screening and/or assessment should be performed to assess risk to potential sensitive receptors. These guidelines are intended only for projects that are impacted by a single source. Another useful tool is the CAPCOA Guidance Document: *Health Risk Assessments for Proposed Land Use Projects*. CAPCOA prepared the guidance to assist Lead Agencies in complying with CEQA requirements. The guidance document describes when and how a health risk assessment should be prepared and what to do with the results.”<sup>18</sup>

**Table 7** presents the Air District’s and ARB’s siting recommendations for projects proposing sensitive land uses.

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<sup>17</sup> Air District. GAMAQI. Section 6.5. Page 44.

<sup>18</sup> Air District. GAMAQI. Section 6.5. Page 45.



<b>Table 7. ARB Recommendations on Siting New Sensitive Land Uses</b>	
<b>Source Category</b>	<b>Advisory Recommendations</b>
Freeways and High-Traffic Roads	Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
Distribution Centers	Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week).  Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.
Refineries	Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloroethylene	Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district.  Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations.
Gasoline Dispensing Facilities	Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.
<p><i>Sources:</i>  Air Resources Board, <i>Air Quality and Land Use Handbook: A Community Health Perspective</i>. Table 1-1. Accessed November 2019 at: <a href="https://www.arb.ca.gov/ch/handbook.pdf">https://www.arb.ca.gov/ch/handbook.pdf</a>.  California Air Pollution Control Officers Association, <i>Health Risk Assessments for Proposes Land Use Projects</i>. Table 2. Accessed November 2019 at: <a href="http://www.valleyair.org/transportation/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf">http://www.valleyair.org/transportation/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf</a>.</p>	

“Determination of whether project emissions would expose sensitive receptors to substantial pollutant concentrations is a function of assessing potential health risks. Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors. When evaluating whether a development proposal has the potential to result in localized impacts, Lead Agency staff need to consider the nature of the air pollutant emissions, the proximity between the emitting facility and sensitive receptors, the direction of prevailing winds, and local topography. Lead Agencies are encouraged to use the screening tools for Toxic Air Contaminant presented in section 6.5 (Potential Land Use Conflicts and Exposure of Sensitive Receptors [pages 44 – 45 of the GAMAQI]) to identify potential conflicts between land use and sensitive receptors and include the result of their analysis in the referral document.”<sup>19</sup>

### *Nuisance Odors*

<sup>19</sup> Air District, GAMAQI. Section 7.15. Page 66.



“Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, there are no quantitative or formulaic methodologies to determine the presence of a significant odor impact. Rather, the District recommends that odor analyses strive to fully disclose all pertinent information. The intensity of an odor source’s operations and its proximity to sensitive receptors influences the potential significance of odor emissions. The District has identified some common types of facilities that have been known to produce odors in the San Joaquin Valley. These are presented in Chapter 8 [of the GAMAQI] along with a reasonable distance from the source within which, the degree of odors could possibly be significant.”<sup>20</sup>

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing receptor. The second occurs when a new receptor locates near an existing source of odor. “An analysis of potential odor impacts should be conducted for the following two situations:

1. Generators – projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate, and
2. Receivers – residential or other sensitive receptor projects or other projects built for the intent of attracting people locating near existing odor sources.”<sup>21</sup>

“The intensity of an odor source’s operations and its proximity to sensitive receptors influences the potential significance of odor emissions. The District has identified some common types of facilities that have been known to produce odors in the San Joaquin Valley Air Basin. These are presented in Table 6 (Screening Levels For Potential Odor Sources) [of the GAMAQI] along with a reasonable distance from the source within which, the degree of odors could possibly be significant. Table 6 (Screening Levels for Potential Odor Sources) [of the GAMAQI], can be used as a screening tool to qualitatively assess a project’s potential to adversely affect area receptors. This list of facilities is not all-inclusive. The Lead Agency should evaluate facilities not included in the table or projects separated by greater distances if warranted by local conditions or special circumstances. If the proposed project would result in sensitive receptors being located closer than the screening level distances, a more detailed analysis should be provided.”<sup>22</sup>

**Table 8** presents the Air District’s screening levels for potential nuisance odor sources.

<b>Table 8. Air District Screening Levels for Potential Odor Sources</b>	
<b>Odor Generator / Type of Facility</b>	<b>Distance</b>
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile

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<sup>20</sup> Air District. GAMAQI. Section 7.16, Pages 66-67.

<sup>21</sup> Air District. GAMAQI. Section 8.6, Page 102.

<sup>22</sup> Air District. GAMAQI. Section 8.6, Pages 102-103.



**Table 8. Air District Screening Levels for Potential Odor Sources**

Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile
<i>Sources: Air District. GAMAQI. Table 6, Page 103. Accessed November 2019 at: <a href="http://www.valleyair.org/transportation/GAMAQI-2015/GAMAQI-Criteria-Pollutant-Thresholds-of-Odors.pdf">http://www.valleyair.org/transportation/GAMAQI-2015/GAMAQI-Criteria-Pollutant-Thresholds-of-Odors.pdf</a>.</i>	

## **Greenhouse Gases Thresholds**

### *Assembly Bill 32 (AB 32)*

The California State Legislature adopted AB 32 on September 27, 2006. AB 32 focuses on reducing GHG emissions to 1990 levels by the year 2020 and to 80% below 1990 levels by the year 2050. Pursuant to the requirements in AB 32, the Air Resources Board (ARB) adopted the Climate Change Scoping Plan (2008 Scoping Plan), which outlines actions recommended to obtain that goal. The 2008 Scoping Plan calls for an “ambitious but achievable” reduction in California’s GHG emissions, cutting emissions approximately 29% from BAU emission levels projected for 2020, or about 10% from 2008 levels. On a per capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020.<sup>23</sup>

“On December 17, 2009, the District’s Governing Board adopted the District Policy: *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*. The District’s Governing Board also approved the guidance document: *Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects Under CEQA*. In support of the policy and guidance document, District staff prepared a staff report: *Addressing Greenhouse Gas Emissions Under the California Environmental Quality Act*. These documents adopted in December of 2009 continue to be the relevant policies to address GHG emissions under CEQA. As these documents may be modified under a separate process, the latest versions should be referenced to determine the District’s current guidance at the time of analyzing a particular project.”<sup>24</sup>

“It is widely recognized that no single project could generate enough GHG emissions to noticeably change the global climate temperature. However, the combination of GHG emissions from past, present and future projects could contribute substantially to global climate change. Thus, project specific GHG emissions should be evaluated in terms of whether or not they would result in a cumulatively significant impact on global climate change. GHG emissions, and their associated contribution to climate change, are inherently a cumulative impact issue. Therefore, project-level impacts of GHG emissions are treated as one-in-the-same as cumulative impacts.

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<sup>23</sup> ARB. Climate Change Scoping Plan. Pages ES-1. Accessed November 2019 at:  
<http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm>, and  
[https://www.arb.ca.gov/cc/scopingplan/document/adopted\\_scoping\\_plan.pdf](https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf).

<sup>24</sup> Air District. GAMAQI. Section 8.9. Page 110.



In summary, the staff report evaluates different approaches for assessing significance of GHG emission impacts. As presented in the report, District staff reviewed the relevant scientific information and concluded that the existing science is inadequate to support quantification of the extent to which project specific GHG emissions would impact global climate features such as average air temperature, average rainfall, or average annual snow pack. In other words, the District was not able to determine a specific quantitative level of GHG emissions increase, above which a project would have a significant impact on the environment, and below which would have an insignificant impact. This is readily understood, when one considers that global climate change is the result of the sum total of GHG emissions, both manmade and natural that occurred in the past; that is occurring now; and will occur in the future.

In the absence of scientific evidence supporting establishment of a numerical threshold, the District policy applies performance based standards to assess project-specific GHG emission impacts on global climate change. The determination is founded on the principal that projects whose emissions have been reduced or mitigated consistent with the California Global Warming Solutions Act of 2006, commonly referred to as “AB 32”, should be considered to have a less than significant impact on global climate change. For a detailed discussion of the District’s establishment of thresholds of significance for GHG emissions, and the District’s application of said thresholds, the reader is referred to the above referenced staff report, District Policy, and District Guidance documents.”<sup>25</sup>

“As presented in Figure 6 (Process of Determining Significance of Greenhouse Gas Emissions) [of the GAMAQI], the policy provides for a tiered approach in assessing significance of project specific GHG emission increases.

- Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the Lead Agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the Lead Agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement Best Performance Standards (BPS).
- Projects implementing BPS would not require quantification of project specific GHG emissions. Consistent with CEQA Guideline, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.
- Projects not implementing BPS would require quantification of project specific GHG emissions and demonstration that project specific GHG emissions would be reduced or mitigated by at least 29%, compared to Business as Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period, consistent with GHG emission reduction targets established in ARB’s AB 32 Scoping Plan. Projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.

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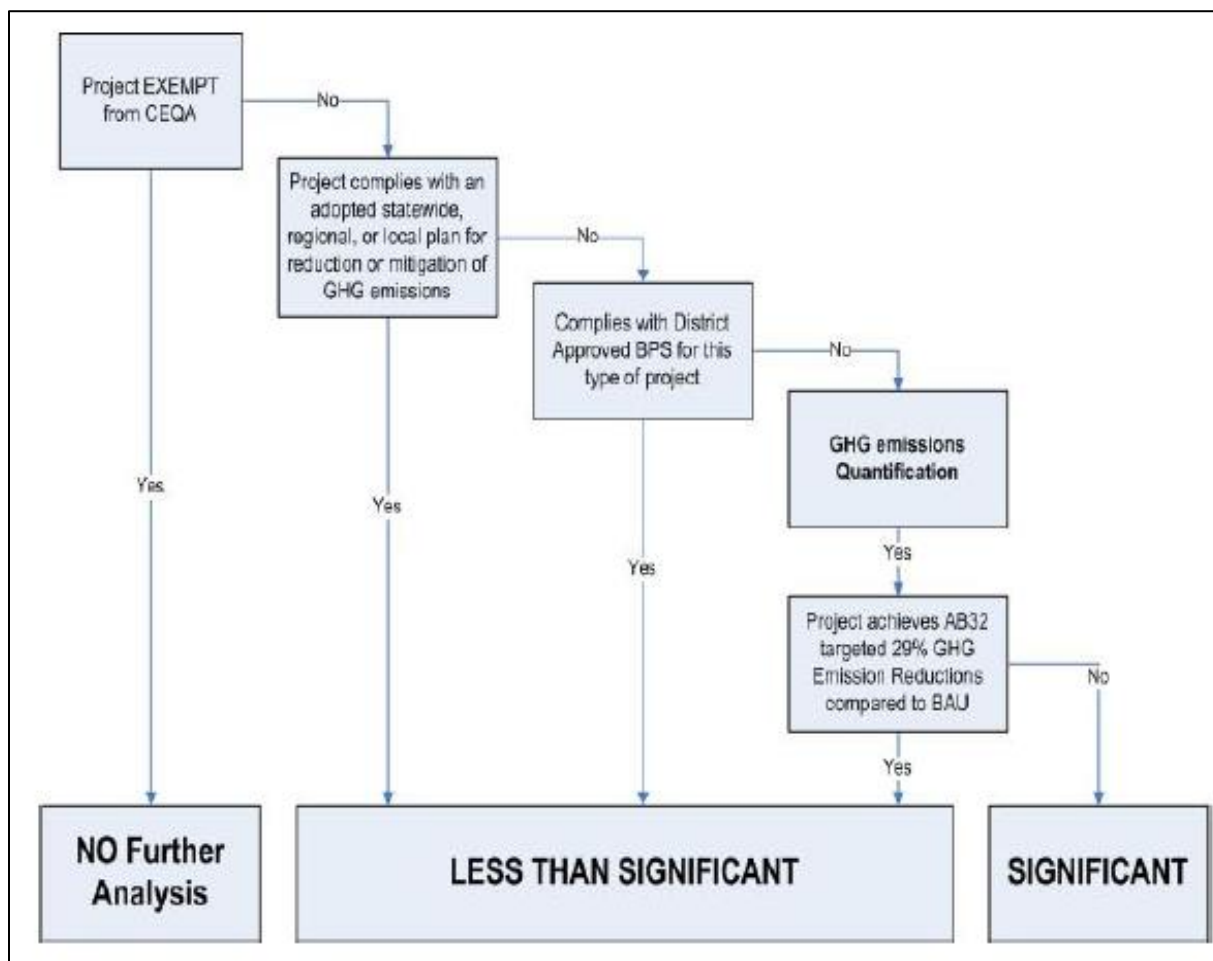
<sup>25</sup> Ibid. Section 8.9. 111-112.



The District guidance for development projects also relies on the use of BPS. For development projects, BPS includes project design elements, land use decisions, and technologies that reduce GHG emissions. Projects implementing any combination of BPS, and/or demonstrating a total 29 percent reduction in GHG emissions from business-as-usual (BAU), would be determined to have a less than cumulatively significant impact on global climate change.”<sup>26</sup>

**Figure 4** provides a visual summary of the Air District’s process for determining significance of project-related GHG emissions.

**Figure 4. Process of Determining Significance of Greenhouse Gas Emissions**



Source: Air District, GAMAQI, Figure 6, Page 113

The Air District’s *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Project under CEQA* states, “Projects implementing Best Performance Standards in accordance with this guidance would be determined to have a less than significant individual and cumulative impact on global climate change and would not require project specific quantification of GHG emissions. Projects exempt from the requirements of CEQA, and projects complying with an approved GHG emission reduction plan or mitigation program would also be determined to have a less than significant individual or cumulative impact. Such plans or programs must be

<sup>26</sup> Op. Cit. Section 8.9.1.



specified in law or adopted by the public agency with jurisdiction over the affected resources and have a certified final CEQA document. Projects not implementing BPS would require quantification of project specific GHG emissions. To be determined to have a less than significant individual and cumulative impact on global climate changes, such projects must be determined to have reduced or mitigated GHG emissions by 29%, consistent with GHG emission reduction targets established in ARB's AB 32 Scoping Plan. Furthermore, quantification of GHG emissions would be expected for all projects for which the lead agency has determined that an Environmental Impact Report is required, regardless of whether the project incorporates Best Performance Standards.”<sup>27</sup>

“If total GHG emissions reductions measures add up to 29% or more, are enforceable, and are required as a part of the development's approval process, the project achieves the Best Performance Standard (BPS) for the respective type of development project. Thus, the GHG emissions from the development project would be determined to have a less than individually and cumulatively significant impact on global climate change for CEQA purposes.”<sup>28</sup>

“By definition, BPS for development projects is achieving a project-by-project 29% reduction in GHG emissions, compared to BAU. Thus, it is reasonable to conclude that Lead Agencies implementing the proposed *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* threshold will achieve an overall reduction in GHG emissions consistent with AB 32 emission reduction targets...”<sup>29</sup>

#### *Senate Bill 32 (SB32)*

The California State Legislature adopted SB 32 on September 8, 2016. SB 32 focuses on reducing GHG emissions to 40% below 1990 levels by the year 2030. Pursuant to the requirements in SB 32, the ARB adopted the Climate Change Scoping Plan Update (2017 Scoping Plan), which outlines actions recommended to obtain that goal. ARB recommends statewide targets of no more than six (6) metric tons CO<sub>2e</sub> per capita by 2030 and no more than two (2) metric tons CO<sub>2e</sub> per capita by 2050.<sup>30</sup>

The Air District's guidance document was adopted to provide a basis for lead agencies to establish significance thresholds consistent with ARB's 2008 Scoping Plan. The Air District currently does not have a recommendation for establishing thresholds or assessing significance consistent with the reduction requirements established in ARB's 2017 Scoping Plan Update, which requires a 33.2% reduction from BAU to achieve the 2030 target.

The Tulare County Climate Action Plan (CAP) serves as a guiding document for County actions to reduce GHG emissions and adapt to the potential effects of climate change. The CAP is an implementation measure of the Tulare County General Plan 2030 Update, which provides the supporting framework for development within the County to produce fewer GHG emissions during General Plan buildout. The CAP builds on the General Plan's framework with more specific actions that will be applied to achieve emission reduction targets consistent with State legislation

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<sup>27</sup> Air District. Guidance for Valley Land-use Agencies. Page 4.

<sup>28</sup> Air District. Guidance for Valley Land-use Agencies Pages 7-8.

<sup>29</sup> Air District. Guidance for Valley Land-use Agencies Page 8.

<sup>30</sup> ARB. California's 2017 Climate Change Scoping Plan. Page 99 Accessed November 2019at:  
[https://www.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf).



The General Plan fulfills many sustainability and GHG reduction objectives at the program level. Projects implementing the General Plan will comply with these policies resulting in long-term benefits to GHG reductions that will help the County achieve the CAP reduction targets. The CAP identifies the policies from the various General Plan elements that promote more efficient development and reduce travel and energy consumption.<sup>31</sup> CEQA allows the use of a qualitative approach for assessing greenhouse gas impacts for areas with a CAP.

## IMPACT EVALUATION

### AIR QUALITY IMPACTS

#### **a) Would the project conflict with or obstruct implementation of the applicable air quality plan?**

##### Project Impact Analysis:

##### *Significant and Unavoidable Impact*

The Project is located within the San Joaquin Valley Air Basin and, as such, it is compelled to comply with applicable air quality plans, rules, permits, regulations, thresholds, etc., as determined by the Air District (which is a Responsible Agency in regards to this Project). The CEQA Guidelines indicate that a significant impact would occur if the project would conflict with or obstruct implementation of the applicable Air Quality Plan (AQP). The Air District has determined that projects with emissions below the thresholds of significance for criteria pollutants would “Not conflict or obstruct implementation of the District’s air quality plan.” These thresholds are presented in **Table 3**. The Air District has also determined that a project would be considered to have a significant impact if the emissions are predicted to cause or contribute to a violation of ambient air quality standards. An Ambient Air Quality Analysis (AAQA) would be required if the project size exceeds the screening limits presented in **Table 5** and project emissions are predicted to exceed the AAQA screening threshold of 100 pounds per day.

An additional criterion regarding a project’s implementation of AQP control measures was assessed to show specifically how the project helps to implement the AQP. Therefore, this document proposes the following criteria for determining project consistency with the current AQPs:

1. Will the project result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQPs? This measure is determined by comparison to the regional and localized thresholds identified by the District for Regional and Local Air Pollutants.
2. Will the project comply with applicable control measures in the AQPs? The primary control measures applicable to development projects are Regulation VIII—Fugitive PM<sub>10</sub> Prohibitions and District Rule 2201 (New and Modified Stationary Source Review).

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<sup>31</sup> Tulare County, Climate Action Plan 2018 Update (CAP Update), Page 1. Accessed November 2019 at: <http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/220Climate%20Action%20Plan/CLIMATE%20ACTION%20PLAN%202018%20UPDATE.pdf>.



## ***Contribution to Air Quality Violations***

### **Emissions Quantification**

The Project would result in short-term, temporary construction-related, and long-term operations-related air pollutant emissions. A measure for determining if the Project is consistent with the air quality plans is if the Project would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the air quality plans. Regional air quality impacts and attainment of standards are the result of the cumulative impacts of all emission sources within the air basin. Individual projects are generally not large enough to contribute measurably to an existing violation of air quality standards. Therefore, the cumulative impact of the Project is based on its cumulative contribution. Because of the region's nonattainment status for ozone, PM<sub>2.5</sub>, and PM<sub>10</sub>, if Project generated emissions of either of the ozone precursor pollutants (ROG and NO<sub>x</sub>), PM<sub>10</sub>, or PM<sub>2.5</sub> would exceed the Air District's significance thresholds, then the Project would be considered to contribute to violations of the applicable standards and conflict with the attainment plans.

Consultant Alta Environmental prepared emissions calculations for the Project's construction-related activities and on-site operation-related stationary and mobile source emissions (included in Appendix "A" of the DEIR). The Authority to Construct applications provide quantification of emissions from the Project's stationary sources, including the equipment and stockpiles associated with the HMA plant, RAP plant, and concrete batch plant. The Health Risk Assessment also includes quantification of the stationary source emissions, but also includes quantification of construction-related emissions. The Ambient Air Quality Analysis Determination provides quantification of the average daily emissions for both construction- and operation-related activities. Project emissions were estimated assuming construction would take one year and the facility would operate 312 days per year (6 days a week for 52 weeks a year) at the maximum annual permitted capacity, except for stockpiles which were estimated using operation of 365 days per year.

RMA Staff prepared emissions calculations for the operation-related off-site mobile source emissions (see Attachment "A" of this memo). The emissions calculations were based on the proposed maximum annual permitted capacity and the projected annual Project trip generation (see Table 3 of the Traffic Impact Study, included in Appendix "F" of the DEIR). Consistent with the proposed development schedule with operations beginning in 2021, EMFAC emissions factors for 2021 were used to quantify emissions. Given the nature of the Project (manufacturing of construction-related materials) and that it is impossible to identify specific destinations of final product sales, Vehicle Miles Traveled (VMT) has been generalized for likely market areas (expressed as round-trip distances) as follows: 30 miles for local area; 68 miles for the Porterville area; 36 miles to the Fresno County line; and 74 miles to the Kern County Line. Approximately 85.8% of the Project's vehicle trips are attributable to heavy-duty (MHD and HHD) trucks used in the transport of raw material and final product. Approximately 1.4% of trips are attributable to outside service vehicles (LDT1, LDT2) and other materials and services (MDV). The remaining approximate 12.8% of the trips are attributable to employee vehicles (LDA, LDT1, LDT2, MDV).



**Table 9** provides the Project's construction-related emissions. **Table 10** provides the Project's operation-related emissions from permitted sources. **Table 11** provides the Project's on- and off-site operation-related emissions from non-permitted sources.

<b>Table 9. Project Construction Emissions (tons/year)</b>						
<b>Activity/Source</b>	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Site Preparation	0.0209	0.2125	0.1114	0.0002	0.1024	0.0601
Grading	0.0686	0.7543	0.4921	0.0010	0.1363	0.0817
Building Construction	0.3857	3.0340	2.8602	0.0085	0.5109	0.2089
Paving	0.0355	0.1413	0.1528	0.0003	0.0094	0.0074
Architectural Coating	0.4998	0.0194	0.0449	0.0001	0.0090	0.0032
<b>Construction Total</b>	<b>1.0104</b>	<b>4.1615</b>	<b>3.6614</b>	<b>0.0100</b>	<b>0.7680</b>	<b>0.3613</b>
Significance Threshold	10	10	100	27	15	15
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Note: Construction Year is 2020. Emissions include mobile source emissions. Source: Alta Environmental, Health Risk Assessment, Attachment 2, CalEEMod Emission Estimates.						

<b>Table 10. Project Permitted Operational Emissions (tons/year)</b>						
<b>Source</b>	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
<b>HMA Plant</b>						
RAP Cold Feed	---	---	---	---	0.0693	0.0693
Asphalt Dryer	0.8155	1.5369	9.1589	14.4283	1.7250	1.7250
Oil Heater	0.0121	0.0228	0.1357	0.2138	0.0130	0.0130
Oil Storage Tanks	0.511	---	---	---	---	---
Silo Filling / Loadout	1.2263	---	0.1898	---	0.0412	0.0412
Stockpiles	---	---	---	---	1.2375	1.2375
<b>Concrete Batch Plant</b>						
Concrete Batching	---	---	---	---	1.4418	1.4418
Stockpiles	---	---	---	---	1.6521	1.6521
<b>RAP Plant</b>						
RAP Processing	---	---	---	---	0.0231	0.0231
Stockpiles	---	---	---	---	0.3218	0.3218
<b>Permitted Total</b>	<b>2.5649</b>	<b>1.5597</b>	<b>9.4844</b>	<b>14.6421</b>	<b>6.5248</b>	<b>6.5248</b>
Significance Threshold	10	10	100	27	15	15
<b>Exceeds Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Operation Year is 2021. Source: Alta Environmental, Authority to Construct Application – Hot Mix Asphalt Plant, Pages 7-12. Alta Environmental, Authority to Construct Application – Concrete Batch Plant, Pages 8-10. Alta Environmental, Authority to Construct Application – Concrete and Asphalt Recycling Plant, Pages 8-10. Alta Environmental, Ambient Air Quality Analysis Determination Alta Environmental, Health Risk Assessment						

<b>Table 11. Project Non-Permitted Operational Emissions (tons/year)</b>						
<b>Source</b>	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
<b>On-Site Non-Permitted Sources<sup>1</sup></b>						
On-Site Truck Exhaust	0.096	1.177	0.979	0.003	0.008	0.008
On-Site Truck Fugitive Dust	---	---	---	---	0.207	0.207
Off-Road Equipment	0.113	0.243	2.23	0.000	0.008	0.007
<b>Off-Site Non-Permitted Sources<sup>2</sup></b>						
Aggregate Material Delivery Trucks	0.1256	4.1652	0.5087	0.0159	0.0690	0.0660
Oil Delivery Trucks	0.0025	0.0826	0.0101	0.0003	0.0014	0.0013
Propane Delivery Trucks	0.0005	0.0152	0.0019	0.0001	0.0003	0.0002
HMA Trucks	0.0673	2.2313	0.2725	0.0085	0.0370	0.0354
Cement & Fly Ash Delivery Trucks	0.0126	0.4165	0.0509	0.0016	0.0069	0.0066



<b>Table 11. Project Non-Permitted Operational Emissions (tons/year)</b>						
<b>Source</b>	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Ready Mix Concrete Trucks	0.1121	3.7189	0.4542	0.0142	0.0616	0.0590
Recycled Material End Dumps	0.0115	0.3804	0.0465	0.0015	0.0063	0.0060
Recycled Material Delivery Trucks	0.0154	0.2225	0.0410	0.0007	0.0060	0.0057
Recycled Base Trucks	0.0135	0.4463	0.0545	0.0017	0.0074	0.0071
Fuel Trucks (for on-site equipment)	0.0003	0.0097	0.0012	0.0000	0.0002	0.0002
Outside Services	0.0008	0.0035	0.0355	0.0001	0.0001	0.0000
Other Materials/Services	0.0006	0.0028	0.0252	0.0001	0.0000	0.0000
Employee Trips	0.0093	0.0419	0.4321	0.0013	0.0006	0.0006
<b>Non-Permitted Total</b>	<b>0.5807</b>	<b>13.1568</b>	<b>5.1433</b>	<b>0.0489</b>	<b>0.4197</b>	<b>0.4102</b>
Significance Threshold	10	10	100	27	15	15
<b>Exceeds Threshold?</b>	<b>No</b>	<b>Yes</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Operation Year is 2021. 1 Source: Alta Environmental. Ambient Air Quality Analysis Determination and Health Risk Analysis. 2 Source: Attachment A of this memo, Annual Off-Site Emissions Table.						

As presented in **Table 9**, emissions of ROG, NOx, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> associated with the construction of the Project would not exceed the Air District's significance thresholds; as such, the Project would not conflict with or obstruct implementation of the applicable AQP. Therefore, construction-related activities will have a **Less Than Significant Impact** related to this Checklist Item.

As presented in **Table 10**, emissions of ROG, NOx, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> associated with the permitted equipment and on-site activities (stationary sources) of the Project would not exceed the Air District's significance thresholds; as such, the Project would not conflict with or obstruct implementation of the applicable AQP. Therefore, permitted operation-related activities will have a **Less Than Significant Impact** related to this Checklist Item.

As presented in **Table 11**, emissions of ROG, NOx, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> associated with the on-site non-permitted equipment and activities (mobile sources) of the Project would not exceed the Air District's significance thresholds. As presented in **Table 11**, NOx emissions associated with the off-site non-permitted equipment and activities (mobile source emissions from transport of raw and final product, services and deliveries, and employee trips) will exceed the Air District's significance thresholds; emissions of ROG, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> from these sources will not exceed the thresholds.

The Project is subject to Air District rules and regulations including, Regulation VIII (Fugitive PM10 Prohibition), Rules 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits, Rule 4001 (New Source Performance Standards), Rule 4101 (Visible Emissions), Rule 4102 (Public Nuisance), Rule 4309 (Dryers, Dehydrators, and Ovens), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). According to the Air District's GAMAQI, "Project subject to District rules and regulation would reduce its impacts on air quality through compliance with regulatory requirements."<sup>32</sup> Regarding Rule 2201, the GAMAQI states, "NSR is a major component of the

<sup>32</sup> Air District. GAMAQI, Section 8.2, Page 75.



District's attainment strategy as it relates to growth. It applies to new and modified stationary sources of air pollution. NSR provides mechanisms, including emission trade-offs, by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards. District implementation of NSR ensures that there is no net increase in emissions above specified thresholds from new and modified Stationary Sources for all nonattainment pollutants and their precursors.”<sup>33</sup>

Mobile source emissions are under the jurisdiction of the ARB. The Applicant's on-site equipment and heavy-duty truck fleet (used to transport aggregate to the site from the Porterville plant) are currently ARB-compliant and will continue to comply with all applicable ARB rules and regulations. The Applicant does not own the heavy-duty trucks that will be used to transport finished product for sale. As truck registration is dependent upon compliance with ARB's truck regulations, it is reasonable to assume that all heavy-duty trucks accessing the Project site comply, and will continue to comply, with ARB regulations. As truck emissions are expected to become cleaner in the future and all heavy-duty truck fleets must have Year 2010 engine models by 2023, the Project-related NOx emissions are also expected to decrease with time.

The emissions inventories included in the Tulare County General Plan are consistent with and included in the AQP. The Project is consistent with the growth projections in the General Plan and will implement all applicable General Plan policies, including those that require compliance with Air District regulation and encourage emission reducing project design features.

As previously discussed, the Project will comply with all federal, state, and Air District rules and regulation, and is consistent with the Tulare County General Plan and the State SIP. However, the Air District's GAMAQI states, “the District recommends that mobile source (both exhaust emissions and fugitive dust emissions) be quantified separate from other non-permitted sources or activities. However, emissions from all non-permitted equipment and activities are summed by criteria pollutant when determining significance. A project would be determined to have a significant, long-term impact on air quality if any criteria pollutant resulting from non-permitted equipment and activities exceeds its respective threshold of significance.”<sup>34</sup> As such, Project-related off-site mobile source NOx emissions would result in a ***Significant and Unavoidable Project-specific Impact*** to Air Quality.

#### Ambient Air Quality Analysis

Pursuant to Air District recommendations and following Air District procedures, consultant Alta Environmental evaluated the Project's daily emissions to determine whether an AAQA would be warranted for the Project. Project daily emissions were estimated assuming construction would take one year and the facility would operate 312 days per year (6 days a week for 52 weeks a year) at maximum annual permitted capacity, except for stockpiles which were estimated using operation of 365 days per year.

**Table 12** provides the Project's daily construction-related emissions. **Table 13** provides the Project's daily operation-related emissions from permitted source. **Table 14** provides the Project's daily operation-related emissions from non-permitted sources.

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<sup>33</sup> Air District. GAMAQI, Section 8.3.1, Page 81.

<sup>34</sup> Air District. GAMAQI, Section 8.3.7, Page 89.



<b>Table 12. Daily Construction Emissions (pounds/day)</b>						
<b>Construction Phase</b>	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Site Preparation	4.19	42.50	22.28	0.04	20.49	12.02
Grading	4.57	50.29	32.81	0.06	9.08	5.45
Building Construction	4.43	34.87	32.88	0.10	5.87	2.40
Paving	3.55	14.13	15.28	0.03	0.94	0.74
Architectural Coating	49.98	1.94	4.49	0.01	0.90	0.32
<b>Max Daily Construction</b>	<b>49.98</b>	<b>50.29</b>	<b>32.88</b>	<b>0.10</b>	<b>20.49</b>	<b>12.02</b>
<b>Exceeds 100 lb/day?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Source: Alta Environmental. Ambient Air Quality Analysis Determination						

<b>Table 13. Daily Permitted Operational Emissions (pounds/day)</b>						
<b>Source</b>	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
Concrete Batch Plant	---	---	---	---	9.23	9.23
RAP Processing Plant	---	---	---	---	0.15	0.15
HMA Dryer	5.26	9.87	58.72	92.50	11.09	11.09
HMA Oil Heater	0.08	3.81	0.96	1.37	0.08	0.08
HMA Cold Feed RAP	---	---	---	---	0.36	0.36
HMA Silo Filling	5.86	---	0.57	---	0.01	0.01
HMA Silo Loadout	2.00	---	0.65	---	0.25	0.25
HMA Oil Tanks	2.80	---	---	---	---	---
<b>Total Daily Operations</b>	<b>15.99</b>	<b>13.69</b>	<b>60.89</b>	<b>93.87</b>	<b>21.17</b>	<b>21.17</b>
<b>Exceeds 100 lb/day?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Source: Alta Environmental. Ambient Air Quality Analysis Determination						

<b>Table 14. Daily Non-Permitted Operational Emissions (pounds/day)<sup>1</sup></b>						
<b>Source</b>	<b>ROG</b>	<b>NOx</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
HMA Storage Pile	---	---	---	---	6.79	6.79
Concrete Storage Pile	---	---	---	---	9.04	9.04
RAP Storage Pile	---	---	---	---	1.75	1.75
Truck Exhaust (on-site)	0.62	7.55	6.28	0.02	0.05	0.05
Truck Fugitive Dust (on-site)	---	---	---	---	1.33	1.33
Off Road Equipment	0.73	1.56	14.29	---	0.05	0.05
Vehicle Exhaust (off-site trucks and employee trips) <sup>2</sup>	2.38	75.24	12.40	0.29	1.26	1.21
<b>Total Daily Operations</b>	<b>3.72</b>	<b>84.34</b>	<b>32.97</b>	<b>0.31</b>	<b>20.28</b>	<b>20.28</b>
<b>Exceeds 100 lb/day?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<sup>1</sup> Source: Alta Environmental. Ambient Air Quality Analysis Determination						
<sup>2</sup> Source: Attachment "A" of this memo, Table 3						

As presented in **Tables 12-14**, daily emissions of ROG, NOx, CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> associated with the construction and operation of the Project would not exceed the Air District's AAQA screening thresholds of 100 pound per day. Total daily operation-related emissions (permitted and non-permitted) are 19.71 lb/day ROG, 98.03 lb/day NOx, 93.86 lb/day CO, 94.18 lb/day SO<sub>2</sub>, 41.45 lb/day PM<sub>10</sub>, and 41.45 lb/day PM<sub>2.5</sub> which are also below the Air District's thresholds. As such, the Project will not conflict with or obstruct implementation of the applicable AQP. Therefore, the Project will have a **Less Than Significant Project-specific Impact** related to this Checklist Item.

#### **Compliance with Applicable Air Quality Plan Control Measures**



The AQP contains a number of control measures, which are enforceable requirements through the adoption of rules and regulations. As previously noted, the Project is subject to Air District rules and regulations including, Regulation VIII (Fugitive PM<sub>10</sub> Prohibition), Rules 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits, Rule 4001 (New Source Performance Standards), Rule 4101 (Visible Emissions), Rule 4102 (Public Nuisance), Rule 4309 (Dryers, Dehydrators, and Ovens), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

**Regulation VIII—Fugitive PM<sub>10</sub> Prohibitions** is a control measure that is one of the main strategies from the 2006 PM<sub>10</sub> Plan for reducing the PM<sub>10</sub> emissions that are part of fugitive dust. The Air District adopted its Regulation VIII on October 21, 1993 and amended on August 8, 2004 to implement Best Available Control Measures (BACM). This Regulation consists of a series of emission reduction rules consistent with the PM<sub>10</sub> Maintenance Plan. These rules are designed to reduce PM<sub>10</sub> emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track-out, etc.

**Rules 2201 (New and Modified Stationary Source Review)** applies to all new stationary sources which are subject to Air District Permit Requirements. Rule 2201 requires stationary source projects that exceed certain thresholds to install Best Available Control Technology (BACT) and to obtain emission offsets to ensure that growth in stationary sources on a cumulative basis will not result in an increase in emissions. The Project will comply with Air District permitting requirements under Rule 2201.

The Project will comply with all applicable Air District rules and regulations. Therefore, the Project complies with this criterion and would not conflict with or obstruct implementation of the applicable AQP.

The 2016 Plan for the 2008 8-Hour Ozone Standard was adopted in June 2016. The 2015 Plan for the 1997 PM<sub>2.5</sub> Standard was adopted in April 2015 and the 2016 Moderate Area Plan for the 2012 PM<sub>2.5</sub> Standard was adopted in September 2016. The plans assume growth would occur at rates projected by the State and regional population forecasts and would result in the continued need for rock and aggregate for construction projects. Therefore, the Project complies with this criterion and would not conflict with or obstruct implementation of the applicable air quality attainment plan.

The Project will comply with all applicable Air District rules and regulations including BACT requirements. The Project will provide necessary construction materials for future growth as projected by the State. As such, the Project is in compliance with AQP control measures and would not conflict with or obstruct implementation of the applicable AQP. The Project will have a ***Less Than Significant Project-specific Impact*** related to this Checklist Item.

Cumulative Impact Analysis:

***Significant and Unavoidable Cumulative Impact***

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. The Project would be considered to have a significant cumulative impact on air quality if Project-specific impacts are determined to be significant. As previously discussed, Project construction-related criteria pollutant emissions would not exceed Air District significance thresholds. Project



operation-related ROG, CO, SO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> emissions also would not exceed Air District significant thresholds. While permitted operation-related NO<sub>x</sub> emissions do not exceed the significance threshold, NO<sub>x</sub> emissions from off-site mobile sources do exceed the threshold. The Project will comply with all applicable federal, State and Air District rules and regulations and will not result in daily emissions that would exceed 100 pound per day; as such, the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. However, because mobile source NO<sub>x</sub> emissions are considered to have a Significant and Unavoidable Project-specific Impact, the Project's impacts are also considered cumulatively significant. Therefore, the Project will result in a ***Significant and Unavoidable Cumulative Impact*** related this Checklist Item.

Mitigation:

***No Additional Measures beyond Compliance with Existing Regulation Required.***

The Project is subject to Air District permitting requirements and various Air District rules and regulations including: Regulation VIII (Fugitive PM<sub>10</sub> Prohibition), Rules 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits, Rule 4001 (New Source Performance Standards), Rule 4101 (Visible Emissions), Rule 4102 (Public Nuisance), Rule 4309 (Dryers, Dehydrators, and Ovens), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). As demonstrated in **Table 10**, the Project's permitted sources will not exceed the Air District's thresholds of significance for any criteria pollutant. As such, mitigation is not required to reduce permitted emissions to a level of less than significant.

As demonstrated in **Table 11**, the Project's non-permitted sources, specifically the heavy-duty truck trips, will exceed the Air District's thresholds of significance for NO<sub>x</sub>. Mobile source emissions are under the jurisdiction of the ARB. The Applicant's on-site equipment and heavy-duty truck fleet are currently ARB-compliant and will continue to comply with all applicable ARB rules and regulations. The Applicant does not own the heavy-duty trucks that will be used to transport finished product for sale. As truck registration is dependent upon compliance with ARB's truck regulations, it is reasonable to assume that all heavy-duty trucks accessing the Project site comply, and will continue to comply, with ARB regulations. As truck emissions are expected to become cleaner in the future and all heavy-duty truck fleets must have Year 2010 engine models by 2023, the Project-related emissions are also expected to decrease with time.

The emissions inventories included in the Tulare County General Plan are consistent with and included in the AQP. The Project is consistent with the growth projections in the General Plan and will implement all applicable General Plan policies, including those that require compliance with Air District regulation and encourage emission reducing project design features.

As previously discussed, the Project will comply with all federal, state, and Air District rules and regulation, and is consistent with and will implement all applicable policies of Tulare County General Plan. The Applicant does not have control over the heavy-duty vehicles used in transport of final product from the site. Furthermore, as this is a new facility and actual production and sales are speculative at this time, it is unknown if the maximum production capacity will be achieved. As such, feasible mitigation consists of existing rules, regulations, and requirements.

Conclusion:

***Significant and Unavoidable Cumulative Impact***



As previously noted, the Project will not exceed the Air District's thresholds of significance and, as such, will not conflict with or obstruct implementation of the applicable air quality plans. Therefore, *Less Than Significant Project-specific and Cumulative Impacts* related to this Checklist Item will occur.

**b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?**

Project Impact Analysis:

*Significant and Unavoidable Impact*

See Item a), earlier, and Cumulative Impact Analysis, below.

Cumulative Impact Analysis:

*Significant and Unavoidable Impact*

To result in a less than significant cumulative impact, the following three (3) criteria must be true:

1. Regional analysis: emissions of nonattainment pollutants must be below the Air District's regional significance thresholds. This is an approach recommended by the Air District in its GAMAQI.
2. Summary of projections: the project must be consistent with current air quality attainment plans including control measures and regulations. This is an approach consistent with Section 15130(b) of the CEQA Guidelines.
3. Cumulative health impacts: the project must result in less than significant cumulative health effects from the nonattainment pollutants. This approach correlates the significance of the regional analysis with health effects, consistent with the court decision, *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219-20.

The first criteria used to evaluate potential Project impacts is to determine if the Project's emissions are below the Air District's significance thresholds. As previously discussed in Checklist Item a) "*Contribution to Air Quality Violations*" and demonstrated in **Tables 10 and 11**, the Project's construction-related and permitted operation-related criteria pollutant emissions would not exceed Air District significance thresholds for any criteria pollutant. The Project's non-permitted (mobile source) operation-related ROG, CO, SO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> emissions also would not exceed Air District significant thresholds; however, NO<sub>x</sub> emissions from the mobile sources do exceed the threshold. Mobile source emissions are under the jurisdiction of the ARB. The Applicant's on-site equipment and heavy-duty truck fleet are currently ARB-compliant and will continue to comply with all applicable ARB rules and regulations. The Applicant does not own the heavy-duty trucks that will be used to transport finished product for sale. As truck registration is dependent upon compliance with ARB's truck regulations, it is reasonable to assume that all heavy-duty trucks accessing the Project site comply, and will continue to comply, with ARB regulations. As truck emissions are expected to become cleaner in the future and all heavy-duty truck fleets must have Year 2010 engine models by 2023, the Project-related NO<sub>x</sub> emissions are also expected to decrease with time. The Project will comply with all applicable federal, State and Air District rules and regulations and will not result in daily emissions, from construction activities, permitted



equipment/activities, or non-permitted equipment/activities, that would exceed the AAQA screening threshold of 100 pound per day. As such, the Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. However, because mobile source NOx emissions exceed the Air District's significance thresholds they are considered to result in Significant Project-specific Impact. As such, the Project's impacts are also considered cumulatively significant. Therefore, the Project will result in a ***Significant and Unavoidable Cumulative Impact*** related this Checklist Item.

The second criteria used to evaluate potential Project impacts is to determine if the Project is consistent with current AQPs including control measures and regulations. In accordance with CEQA Guidelines 15130(b), this part of the analysis of cumulative impacts is based on a summary of projections analysis. This analysis considers the current CEQA Guidelines, which includes the amendments approved by the Natural Resources Agency, effective on December 28, 2018. Under the amended CEQA Guidelines, cumulative impacts may be analyzed using other plans that evaluate relevant cumulative effects. The AQPs describe and evaluate the future projected emissions sources in the San Joaquin Valley Air Basin and set forth a strategy to meet both state and federal Clean Air Act planning requirements and federal ambient air quality standards. The Air District AQP are based on a summary of projections that accounts for projected growth throughout the Air Basin, and the controls needed to achieve ambient air quality standards. In accordance with CEQA Guidelines Section 15064(h)(3), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously approved plan or mitigation program. Therefore, the plans are relevant plans for a CEQA cumulative impacts analysis. As discussed in Checklist Item a) "*Compliance with Applicable Air Quality Plan Control Measures*" the Project is consistent with all applicable control measures in the air quality attainment plans. The Project would comply with any District rules and regulations that may pertain to implementation of the AQPs. Therefore, impacts would be less than significant with regard to compliance with applicable rules and regulations. Therefore, according to this criterion, this impact is ***Less Than Significant***.

The third criteria used to evaluate potential Project impacts is to determine if the Project would result in less than significant cumulative health effects from the nonattainment pollutants. In the 5th District Court of Appeal case *Sierra Club v. County of Fresno (Friant Ranch, L.P.)*, the Court found the project EIR deficient because it did not identify specific health related effects resulting from the estimated amount of pollutants generated by the project. The ruling stated that the EIR should give a "sense of the nature and magnitude of the 'health and safety problems' caused by a project's air pollution. The EIR should translate the emission numbers into adverse impacts or to understand why such translation is not possible at this time (and what limited translation is, in fact, possible)."

The standard measure of the severity of impact is the concentration of pollutant in the atmosphere compared to the ambient air quality standard for the pollutant for a specified period of time. The severity of the impact increases with the concentration and the amount of time that people are exposed to the pollutant. The change in health impacts with concentration are described in the Air Quality Index (AQI) tables found on the Environmental Protection Agency's (EPA) AirNow website, and in the "*Air Quality Conditions in Tulare County*" discussion of the DEIR (see AQI Calculator at <https://airnow.gov/index.cfm?action=airnow.calculator> and Air Quality Index (AQI) Basics at <https://www.airnow.gov/index.cfm?action=aqibasics.aqi>). The pollutants of concern in the Friant Ranch ruling were regional criteria pollutants ozone, and PM10. It is important to note



that the potential for localized impacts can be addressed through dispersion modeling. The Air District includes screening criteria that if exceeded would require dispersion modeling to determine if project emissions would result in a significant health impact. For this Project, no significant localized health impacts would occur (see the Health Risk Assessment included in Appendix “A” of the EIR). Regional pollutants require more complex modeling as described below.

Ozone concentrations are estimated using regional photochemical models because ozone formation is subject to temperature, inversion strength, sunlight, emissions transport over long distances, dispersion, and the regional nature of the precursor emissions. The emissions from individual projects are too small to produce a measurable change in ozone concentrations—it is the cumulative contribution of emissions from existing and new development that is accounted for in the photochemical model. Ozone concentrations vary widely throughout the day and year even with the same amount of daily emissions. The Air District indicated in an Amicus Brief on Friant Ranch that running the photochemical model with just Friant Ranch emissions (109.5 tons/year NO<sub>x</sub>) is not likely to yield valid information given the relative scale involved. A copy of the Air District’s brief is included in Attachment “B” in this memo. The NO<sub>x</sub> inventory for the San Joaquin Valley is 224 tons per day in 2019 or 81,760 tons per year. Friant Ranch would result in 0.13 percent increase in NO<sub>x</sub> emissions. A project emitting at the Air District CEQA threshold of 10 tons per year would result in a 0.01 percent increase in NO<sub>x</sub> emissions. Most project emissions are generated by motor vehicle travel distributed on regional roadways miles from the project site, and these emissions are not conducive to project-level modeling.

Emissions throughout the San Joaquin Valley are projected to markedly decline in the coming decade. The Air District’s 2016 Ozone Plan predicts NO<sub>x</sub> emissions will decline to 103 tons per day by 2029 or 54 percent from 2019 levels through implementation of control measures included in the plan. This means that ozone health impacts to residents of the San Joaquin Valley will be lower than currently experienced and most areas of the San Joaquin Valley will have attained ozone air quality standards. The plan accounts for growth in population at rates projected by the State of California for the San Joaquin Valley, so only cumulative projects that would exceed regional growth projections would potentially delay attainment and prolong the time and the number of people would experience health impacts. It is unlikely that anyone would experience greater impacts from regional emissions than currently occur. The federal transportation conformity regulation provides a means of ensuring growth in emissions does not exceed emission budgets for each County. Regional Transportation Plans and Regional Transportation Improvement Plans must provide a conformity analysis based on the latest planning assumptions that demonstrates that budgets will not be exceeded. If budgets are exceeded, the San Joaquin Valley may be subject to Clean Air Act sanctions until the deficiency is addressed.

Particulate emission impacts can be localized and regional. Particulates can be directly emitted and can be formed in the atmosphere with chemical reactions. Small directly emitted particles such as diesel emissions and other combustion emissions can remain in the atmosphere for a long time and can be transported over long distances. Large particles such as fugitive dust tend to be deposited a short distance from where emitted but can also travel long distances during periods of high winds. Particulates can be washed out of the atmosphere by rain and deposited on surfaces. Secondary particulates formed in the atmosphere such as ammonium nitrate require NO<sub>x</sub> and ammonia and require low inversion levels, and certain ranges of temperature and humidity to result in substantial concentrations. These complications make modeling project particulate emissions to



determine concentration feasible only for directly emitted particles at receptor locations close to the project site. Regional particulate concentrations are modeled using a gridded inventory (emissions in tons/day are placed within a 4-kilometer, three-dimensional grid to spatially allocate the emissions geographically) and an atmospheric chemistry component is used to simulate the chemical reactions. The model uses relative reduction factors to determine the amount of reductions of each PM component will be needed to attain the air quality standards on the days with the conditions most favorable to high particulate concentrations. Only very large projects with emissions well in excess of Air District thresholds of significance would produce sufficient emissions to determine a project's individual contribution to the particulate concentration and health impact.

The Air Basin is in nonattainment for ozone, PM<sub>10</sub> (State only), and PM<sub>2.5</sub>, which means that the background levels of those pollutants are at times higher than the ambient air quality standards. The air quality standards were set to protect public health, including the health of sensitive individuals (such as children, the elderly, and the infirm). Therefore, when the concentration of those pollutants exceeds the standard, it is likely that some sensitive individuals in the population would experience health effects that are described in the EPA's AQI Calculator tables. However, the health effects are a factor of the dose-response curve. Concentration of the pollutant in the air (dose), the length of time exposed, and the response of the individual are factors involved in the severity and nature of health impacts. If a significant health impact results from project emissions, it does not mean that 100 percent of the population would experience health effects. The "Air Quality Monitoring Summary" table provided in the "Air Quality Conditions in Tulare County" discussion of the DEIR relates the pollutant concentration experienced by residents using air quality data for the nearest air monitoring station to the health impacts ascribed to those concentrations by the EPA AQI. This provides a more detailed look at the actual impacts currently experienced by residents near the project site.

Since the Air Basin is nonattainment for ozone, PM<sub>10</sub>, and PM<sub>2.5</sub>, it is considered to have an existing significant cumulative health impact without the Project. When this occurs, the analysis considers whether the Project's contribution to the existing violation of air quality standards is cumulatively considerable. The Air District's regional thresholds for NO<sub>x</sub>, VOC, PM<sub>10</sub>, or PM<sub>2.5</sub> are applied as cumulative contribution thresholds. Projects that exceed the regional thresholds would have a cumulatively considerable health impact. As shown in **Table 11**, the regional analysis of operational emissions indicates that the Project's NO<sub>x</sub> emissions from heavy-duty truck emissions would exceed the District's significance thresholds if the facility operates at maximum permitted capacity in its opening year (2021). However, maximum permitted capacity presents the worst-case emissions scenario. As truck emissions are expected to become cleaner in the future and all heavy-duty truck fleets must have Year 2010 engine models by 2023, the Project-related NO<sub>x</sub> emissions are also expected to decrease with time. Furthermore, the Air District's AQPs predict that nonattainment pollutant emissions will continue to decline each year as regulations adopted to reduce these emissions are implemented, accounting for growth projected for the region. Therefore, the cumulative health impact will also decline even with the Project's emission contribution. Therefore, according to this criterion, this impact is ***Less Than Significant***

Mitigation:

***No Additional Measures beyond Compliance with Existing Regulation Required.***



As discussed in Checklist Item a), the Project will comply with all federal, state, and Air District rules and regulation, and is consistent with and will implement all applicable policies of Tulare County General Plan. Mobile source emissions are under the jurisdiction of the ARB. The Applicant's fleet is compliant with current ARB truck regulations and will continue to comply with all applicable ARB rules and regulations. The Applicant does not have control over the heavy-duty vehicles used in transport of final product from the site. As truck registration is dependent upon compliance with ARB's truck regulations, it is reasonable to assume that all heavy-duty trucks accessing the Project site comply, and will continue to comply, with ARB regulations. As truck emissions are expected to become cleaner in the future and all heavy-duty truck fleets must have Year 2010 engine models by 2023, the Project-related NOx emissions are also expected to decrease with time. Furthermore, as this is a new facility and actual production and sales are speculative at this time, it is unknown if the maximum production capacity will be achieved. As such, feasible mitigation consists of existing rules, regulations, and requirements.

Conclusion:

***Significant and Unavoidable Impact***

As previously noted, Project non-permitted operation-related (mobile source) NOx emissions exceed the Air District's significance thresholds. The Project will be required to implement all applicable General Plan policies and to comply with all applicable Air District rules and regulations. However, the Applicant does not own all the trucks that will transport final product from the Project site. Therefore, the Project will have a ***Significant and Unavoidable Cumulative Impact*** related to this Checklist Item.

**c) Would the project expose sensitive receptors to substantial pollutant concentrations?**

Project Impact Analysis:

***Less Than Significant Impact***

Sensitive receptors are those individuals who are sensitive to air pollution and include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. The Air District considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of sensitive receptors include schools, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential dwelling units.<sup>35</sup>

***Project-related TACs/HAPs:*** The Project has the potential to expose nearby receptors to TAC/HAP emissions during the short-term construction phase and from the ongoing operational activities. Consultant Alta Environmental prepared a Health Risk Assessment (HRA) consistent with San Joaquin Valley Air District protocols which concluded that the Project would not exceed any Air District thresholds for toxic air contaminants (TACs). The HRA is included in Appendix "A" of the DEIR.

As noted in the in the HRA "Operation of a concrete and HMA plant results in the generation of emissions. Specific sources of TACs at the proposed Dunn Facility include: the HMA dryer, asphalt oil storage tanks, cement silos, material transfer points, trucks used to transport material to and from the site, and off-road equipment to move material within the site. In certain cases, sources

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<sup>35</sup> Air District. GAMAQI. Page 10.



of TACs will be equipment with pollution control devices, such as baghouses and bin vents. The following sources of TACs were included in this risk assessment.

HMA Plant:

- Asphalt Dryer
- Oil Heater
- Oil Storage Tanks
- Silo Filling and Loadout
- RAP Cold Feed

Concrete Batch Plant:

- Cement Silo
- Fly Ash Silo
- Truck Loading

RAP:

- RAP Processing Plant

Other:

- Truck exhaust, including idling
  - Diesel Particulate Matter (DPM)
- Fugitive dust
  - Vehicle traffic
  - Stockpiles
  - Transfer Points

Detailed emission estimates and calculations are provided in Attachment 1 [of the HRA included in Appendix “A” of the DEIR].”<sup>36</sup>

In addition to estimating emissions from the sources noted above, the Air Dispersion Modeling discussion in the HRA notes, “Air dispersion modeling was performed to estimate ground level concentrations (GLCs) at and beyond the property boundary of the Facility. USEPA’s AERMOD executable version 19191 via the BREEZE AERMOD software. Source release parameters were obtained from equipment specifications, published guidance documents, and facility personnel’s knowledge of the expected equipment. Source parameters, such as name, location, release height, etc. are provided in Table 1 and Table 2 [of the HRA included in Appendix “A” of the DEIR].

Truck and off-road equipment emissions were modeled as a series of volume sources located along the expected path of travel. Emissions for these sources were divided evenly between the series of volume sources. For construction emissions, the lot was modeled as an area source.”<sup>37</sup>

The HRA includes various input factors such as meteorological data, terrain data, model options and receptors as part of its analysis.<sup>38</sup> Using this information Alta Environmental is able to conduct a TAC exposure assessment estimate on receptors. As noted in the HRA, “Air dispersion modeling results (plot [.plt] files) were imported into CARB’s HARP software. HARP2 ADMRT software version 19121 was utilized to perform the dose-response assessment and calculate the potential

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<sup>36</sup> “Health Risk Assessment Dunn’s Inc. 7763 Avenue 280 Visalia, CA 93277” (HRA) Page 3. Prepared by Alta Environmental and included in Appendix “A” of the DEIR.

<sup>37</sup> Ibid. 4.

<sup>38</sup> Op. Cit. 4-5



cancer risk and non-cancer health impacts for the various receptors surrounding the proposed Dunn facility. The dose-response assessment and risk calculations were performed in accordance with OEHHA's Risk Assessment Guidelines (OEHHA, 2015) and San Joaquin Valley Air Pollution Control District's (SJVAPCD's) Guidance for Air Dispersion Modeling (SJVAPCD, 2007).<sup>39</sup> In summary, the exposure assessment includes identification of potential exposed populations, exposure pathways (for residents and off-site workers), and HARP exposure analysis methods and assumptions (for residents and off-site workers).<sup>40</sup>

As noted in the HRA, a dose response assessment was also conducted as, "According to OEHHA, dose-response assessment describes the quantitative relationship between the amount of exposure to a substance (the dose) and the incidence or occurrence of an adverse health impact (the response). Dose-response information for noncancer health effects is used to determine Reference Exposure Levels (RELs). Dose-response information for cancer risks are based on cancer potency factors (OEHHA, 2015). Chronic RELs, 8-hour Chronic RELs, Acute RELs, and cancer potency factors for each pollutant are listed in the OEHHA Guidelines and built into HARP2. These values are periodically updated, and new versions of HARP2 incorporate the changes."<sup>41</sup>

The HRA includes a risk characterization methodology by noting that "Risks are characterized using calculations and methodology contained in the OEHHA Guidelines and built into HARP2. Risk is calculated based on dose, dose-response values (RELs or cancer potency factors), and exposure duration and frequency. For this HRA, all risks were calculated using a Tier 1 approach using OEHHA default values."<sup>42</sup> Carcinogenic Risks, Chronic Non-cancer Hazards, and Acute Non-cancer Hazards were then calculated resulting in the following results noted in the Risk Characterization Results in the HRA:

"Risk results are presented at three locations: The Point of Maximum Impact (PMI), the Maximum Exposed Individual Resident (MEIR), and the Maximum Exposed Individual Worker (MEIW) [see **Tables 15-18**]. The PMI is located on the property boundary, and no receptors are expected to reside there for significant periods of time. Therefore, CEQA significance thresholds of 20 in one million for cancer and 1 for non-cancer HI are assessed at the MEIR and MEIW. The locations of the PMI, MEIR, and MEIW are provided in the following table and shown in Figure 3 [in the HRA]."<sup>43</sup>

<b>Table 15. Receptor Locations<sup>44</sup></b>			
<b>Receptor</b>	<b>Receptor ID</b>	<b>UTM X (m)</b>	<b>UTM Y (m)</b>
PMI	759	284,731.4	4,019,450.1
MEIR	730	284,928.6	4,019,640.9
MEIW	471	285,001.6	4,019,627.6

The HRA includes cancer risks results at the PMI, MEIR, and MEIW as follows:

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<sup>39</sup> Op. Cit. 6

<sup>40</sup> Op. Cit.

<sup>41</sup> Op. Cit. 7.

<sup>42</sup> Op. Cit. 8.

<sup>43</sup> Op. Cit.

<sup>44</sup> Op. Cit.



<b>Table 16. Construction Cancer Risk Results<sup>45</sup></b>			
<b>Receptor</b>	<b>UTM X (m)</b>	<b>UTM Y (m)</b>	<b>Cancer Risk</b>
PMI	284,731.4	4,019,450.1	1.0 in one million <sup>1</sup>
MEIR	284,928.6	4,019,640.9	5.0 in one million
MEIW	285,001.6	4,019,627.6	0.6 in one million
<i>1 The cancer risk at the PMI presented above assumes the worker receptor exposure scenario because the PMI is located on the facility fenceline where residential receptors do not exist.</i>			

<b>Table 17. Operational Cancer Risk Results<sup>46</sup></b>			
<b>Receptor</b>	<b>UTM X (m)</b>	<b>UTM Y (m)</b>	<b>Cancer Risk</b>
PMI	284,731.4	4,019,450.1	3.7 in one million <sup>1</sup>
MEIR	284,928.6	4,019,640.9	8.7 in one million
MEIW	285,001.6	4,019,627.6	0.6 in one million
<i>1 The cancer risk at the PMI presented above assumes the worker receptor exposure scenario because the PMI is located on the facility fenceline where residential receptors do not exist.</i>			

<b>Table 18. Total Cancer Risk Results<sup>47</sup></b>			
<b>Receptor</b>	<b>UTM X (m)</b>	<b>UTM Y (m)</b>	<b>Cancer Risk</b>
PMI	284,731.4	4,019,450.1	9.4 in one million <sup>1</sup>
MEIR	284,928.6	4,019,640.9	13.7 in one million
MEIW	285,001.6	4,019,627.6	1.3 in one million <sup>1</sup>
<i>1 Total cancer risk at the PMI and MEIW include the WAF of 2.0.</i>			

As noted in the HRA, these result conclude that, “Diesel particulate matter (DPM) is the primary cancer risk driver.”<sup>48</sup>

The HRA includes non-cancer chronic HI at the PMI, MEIR, and MEIW as follows:

<b>Table 19. Construction Non-cancer Chronic Health Index<sup>49</sup></b>				
<b>Receptor</b>	<b>UTM X (m)</b>	<b>UTM Y (m)</b>	<b>Non-Cancer Chronic HI</b>	<b>Target Organ</b>
PMI	284,731.4	4,019,450.1	7.6E-02 <sup>1</sup>	RESP
MEIR	284,928.6	4,019,640.9	5.6E-03	RESP
MEIW	285,001.6	4,019,627.6	4.3E-03	RESP
<i>1 The cancer risk at the PMI presented above assumes the worker receptor exposure scenario because the PMI is located on the facility fenceline where residential receptors do not exist.</i>				

<b>Table 20. Operation Non-cancer Chronic Health Index<sup>50</sup></b>				
<b>Receptor</b>	<b>UTM X (m)</b>	<b>UTM Y (m)</b>	<b>Non-Cancer Chronic HI</b>	<b>Target Organ</b>
PMI	284,731.4	4,019,450.1	0.2 <sup>1</sup>	RESP
MEIR	284,928.6	4,019,640.9	0.06	RESP
MEIW	285,001.6	4,019,627.6	0.02	RESP
<i>1 The cancer risk at the PMI presented above assumes the worker receptor exposure scenario because the PMI is located on the facility fenceline where residential receptors do not exist.</i>				

<sup>45</sup> Op. Cit. 9.

<sup>46</sup> Op. Cit.

<sup>47</sup> Op. Cit.

<sup>48</sup> Op. Cit.

<sup>49</sup> Op. Cit.

<sup>50</sup> Op. Cit. 10



As noted in the HRA, these result conclude that, “Arsenic is the primary non-cancer chronic HI driver. The primary target organ for the non-cancer chronic HI is the respiratory system.”<sup>51</sup>

The HRA includes non-cancer acute HI at the PMI, MEIR, and MEIW as follows:

<b>Table 21. Construction Non-cancer Acute Health Index<sup>52</sup></b>				
<b>Receptor</b>	<b>UTM X (m)</b>	<b>UTM Y (m)</b>	<b>Non-Cancer Acute HI</b>	<b>Target Organ</b>
PMI	284,731.4	4,019,450.1	0	IMMUN
MEIR	284,928.6	4,019,640.9	0	IMMUN
MEIW	285,001.6	4,019,627.6	0	IMMUN

<b>Table 22. Operation Non-cancer Acute Health Index<sup>53</sup></b>				
<b>Receptor</b>	<b>UTM X (m)</b>	<b>UTM Y (m)</b>	<b>Non-Cancer Acute HI</b>	<b>Target Organ</b>
PMI	284,731.4	4,019,450.1	0.3	IMMUN
MEIR	284,928.6	4,019,640.9	0.07	IMMUN
MEIW	285,001.6	4,019,627.6	0.07	IMMUN

As noted in the HRA, these result conclude that, “Nickel is the primary non-cancer acute HI driver. The primary target organ system is the immune system.”<sup>54</sup>

Therefore, based on the summary analysis above, and in detail in the HRA, the Project does not pose a risk to nearby receptors, by concluding “The total cancer risk is 13.6 in one million which is below the significance threshold of 20 in one million, the total non-cancer chronic HI is below 1, and the total non-cancer acute is below 1 at both the MEIR and MEIW. Therefore, the potential risks from TACs are below SJVAPCD CEQA significance thresholds.”<sup>55</sup> As such, **Less Than Significant Project-specific Impacts** related to this Checklist Item will occur.

**Hazardous Waste Cleanup Sites:** The Project has the potential to temporarily expose nearby receptors to fugitive particulate (dust) emissions during the short-term construction phase and from ongoing operational activities such as unloading raw materials from trucks to stockpiles, transferring material from stockpiles to processing areas, windblown dust from on-site haul roads and the stockpiles themselves. As of November, 2019, there were no listings within the Project vicinity in the California Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site List.<sup>56</sup> A query performed on the DTSC *Envirostor* indicated that the nearest superfund, state response, voluntary cleanup, school cleanup or corrective actions are more than three (3) miles from the Project site.<sup>57</sup> A query of the State Water Resources Control Board (WRCB) *GeoTracker* Sites and Facilities mapping programs revealed two (2) permitted underground storage tank (UST) sites and one (1) cleanup program site with closed cases, and one

<sup>51</sup> Op. Cit.

<sup>52</sup> Op. Cit.

<sup>53</sup> Op. Cit.

<sup>54</sup> Op. Cit.

<sup>55</sup> Op. Cit. 11

<sup>56</sup> DTSC. Hazardous Waste and Substance Site List. Accessed November 2019 at: [https://www.envirostor.dtsc.ca.gov/public/search.asp?page=8&cmd=search&business\\_name=&main\\_street\\_name=&city=&zip=&county=&status=ACT%2CBKLG%2CCOM&branch=&site\\_type=CSITES%2COPEN%2CFUDS%2CCLOSE&npl=&funding=&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST&reporttype=CORTESE&federal\\_superfund=&state\\_response=&voluntary\\_cleanup=&school\\_cleanup=&operating=&post\\_closure=&non\\_operating=&corrective\\_action=&tiered\\_permit=&evaluation=&spec\\_prog=&national\\_priority\\_list=&senate=&congress=&assembly=&critical\\_pol=&business\\_type=&case\\_type=&searchtype=&hwmp\\_site\\_type=&cleanup\\_type=&ocierp=&hwmp=False&permitted=&pc\\_permitted=&inspections=&complaints=&censustract=&cesdecile=&school\\_district=&orderby=county](https://www.envirostor.dtsc.ca.gov/public/search.asp?page=8&cmd=search&business_name=&main_street_name=&city=&zip=&county=&status=ACT%2CBKLG%2CCOM&branch=&site_type=CSITES%2COPEN%2CFUDS%2CCLOSE&npl=&funding=&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST&reporttype=CORTESE&federal_superfund=&state_response=&voluntary_cleanup=&school_cleanup=&operating=&post_closure=&non_operating=&corrective_action=&tiered_permit=&evaluation=&spec_prog=&national_priority_list=&senate=&congress=&assembly=&critical_pol=&business_type=&case_type=&searchtype=&hwmp_site_type=&cleanup_type=&ocierp=&hwmp=False&permitted=&pc_permitted=&inspections=&complaints=&censustract=&cesdecile=&school_district=&orderby=county). Accessed November 2019.

<sup>57</sup> DTSC. *Envirostor*. Sites and Facilities mapping website. Accessed November 2019 at: <https://www.envirostor.dtsc.ca.gov/public/map/>.



(1) military cleanup site within three (3) miles of the Project site; however, none of these sites are within the immediate vicinity of the site.<sup>58</sup> A query performed on the U.S. Environmental Protection Agency (EPA) *Superfund Enterprise Management System* (SEMS) website found that there are no listed polluted sites within the Project vicinity.<sup>59</sup> Therefore, fugitive dust emissions resulting from earthmoving activities would not expose nearby receptors to substantial pollutant concentrations. ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

***Valley Fever:*** Although not specifically required by CEQA, the following discussion related to valley fever is included to satisfy requirements for full disclosure of potential Project-related impacts and are for information purposes only. Valley fever, or coccidioidomycosis, is an infection caused by inhalation of the spores of the fungus, *Coccidioides immitis* (*C. immitis*). According to the Centers for Disease Control (CDC), the San Joaquin Valley is considered an endemic area for valley fever.<sup>60</sup> “People can get Valley fever by breathing in the microscopic fungal spores from the air, although most people who breathe in the spores don’t get sick. Usually, people who get sick with Valley fever will get better on their own within weeks to months, but some people will need antifungal medication.”<sup>61</sup> Construction-related activities generate fugitive dust that could potentially contain *C. immitis* spores. The Project will be required to implement General Plan Policy AQ-4.2 (Dust Suppression Measures), which was specifically designed to address impacts from the generation of dust emitted into the air. The Project will be required to comply with Air District Regulation VIII (Fugitive PM10 Prohibitions) requirements, including submittal of construction notification and/or dust control plan(s), which minimize the generation of fugitive dust during construction- and operations related activities. Therefore, implementation of General Plan policies and compliance with Air District rules and regulations would reduce the chance of exposure of nearby receptors to valley fever during construction- and operation-related activities. ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

***Naturally Occurring Asbestos:*** Although not specifically required by CEQA, the following discussion related to naturally occurring asbestos is included to satisfy requirements for full disclosure of potential Project-related impacts and are for information purposes only. In areas containing naturally occurring asbestos, earthmoving construction-related activities, such as grading and trenching, could expose receptors to windblown asbestos. According to a United States Geological Soil Survey map of areas where naturally occurring asbestos in California are likely to occur, the Project is not located in an area known to contain naturally occurring asbestos.<sup>62</sup> The Project site and the immediate vicinity has been previously disturbed by agricultural operations and by rural residential development. The Project will be required to implement General Plan Policy AQ-4.2 (Dust Suppression Measures) to comply with Air District Regulation VIII (Fugitive PM10 Prohibitions) requirements, thereby reducing the chance of exposure to asbestos during construction-related activities. Therefore, ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

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<sup>58</sup> WRCB. GeoTracker. Sites and Facilities mapping website. Accessed November 2019 at: <https://geotracker.waterboards.ca.gov/>. Accessed November 2019.

<sup>59</sup> EPA. SEMS Search. Accessed November 2019 at: <https://www.epa.gov/enviro/sems-search>.

<sup>60</sup> CDC. Accessed November 2019 at: <https://www.cdc.gov/fungal/diseases/coccidioidomycosis/maps.html>.

<sup>61</sup> CDC. Accessed November 2019 at: <https://www.cdc.gov/fungal/diseases/coccidioidomycosis/index.html>.

<sup>62</sup> USGS. *Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California*. Accessed May 2019 at: <http://pubs.usgs.gov/of/2011/1188/>.



Cumulative Impact Analysis:

***Less Than Significant Impact***

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. As previously discussed, the HRA included in Appendix “A” demonstrates that the Project will not result in significant health risks to nearby receptors. The Tulare County General Plan includes policies, which were specifically designed to engage responsible agencies in the CEQA process, to reduce air pollutant emissions through project design, require compliance with emission-reducing regulations, and to address potential impacts from siting incompatible uses in close proximity to each other. Applicable General Plan policies will be implemented for the Project. Compliance with applicable Air District rules and regulations would further reduce potential impacts from exposure to TAC and HAP emissions, as well as valley fever and asbestos. As such, the development of the proposed Project would not expose the public to substantial pollutant concentrations. Therefore, a ***Less Than Significant Cumulative Impact*** related to this Checklist Item will occur.

Mitigation:

***None Required.***

Conclusion:

***Less Than Significant Impact***

As noted earlier, the HRA included in Appendix “A” of the DEIR demonstrates that the proposed Project would not expose the public to substantial pollutant concentrations. Therefore, ***Less Than Significant Project-specific and Cumulative Impacts*** related to this Checklist Item will occur.

**d) Would the project result in other emissions (such as those leading to odors adversely affecting a substantial number of people?)**

Project Impact Analysis:

***Less Than Significant Impact***

Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas. As previously discussed, the GAMAQI indicates that two situations create a potential for odor impacts. The first occurs when a new odor source (identified as a generator in the GAMAQI) is located near an existing sensitive receptor. The second occurs when a new sensitive receptor (identified as a receiver in the GAMAQI) locates near an existing source of odor. However, with the CBIA v. BAAQMD ruling, impacts of existing sources of odors on the Project are not subject to CEQA review; therefore, the impact of potential odors from the nearby dairy facilities and Visalia WCP on the Project is not required. Therefore, the following analysis is provided for information only.

As presented in **Table 8**, the Air District has determined the common land use types that are known to produce odors in the San Joaquin Valley Air Basin including asphalt batch plants. The existing Visalia Water Conservation Plant, a wastewater treatment facility (located approximately one mile north of the Project), and agricultural uses (dairies) in the vicinity (approximately 1,000 feet east and 3,500 feet west of the Project) could be a source of nuisance odors. All projects, with the exception of agricultural operations, are subject to Air District Rule 4102 (Nuisance). Therefore, odors from agriculture-related operations would not be subject to complaint reporting. There is potential for these agricultural operations to generate objectionable odors during certain atmospheric changes; however, these odors would be temporary and/or seasonal in nature.



Furthermore, the Tulare County General Plan includes Policy AG-1.14 Right-to-Farm Noticing which requires new property owners to acknowledge and accept the inconveniences associated with normal farming activities. If future developments are proposed adjacent to active agricultural uses, future residents will be required to sign a “Right to Farm” notice. To ensure potential nuisance odor impacts are addressed, if proposed developments were to result in sensitive receptors being located closer than the recommended distances to any odor generator identified in **Table 8**, a more detailed analysis, is recommended. The detailed analysis would involve contacting the Air District’s Compliance Division for information regarding odor complaints Implementation of the applicable General Plan policies and compliance with applicable Air District rules and regulations specifically designed to address air quality and odor impacts, would reduce potential odor impacts. The Project will employ 15-20 workers; as such, the Project would not place, create, or expose a substantial number of people to objectionable odors. Therefore, ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

Potential odor sources associated with construction-related activities could originate from diesel exhaust from construction (set-up) of equipment, incoming and out-going diesel-fueled heavy-duty vehicles, and fumes from architectural coating (repainting of existing residential building) and paving operations. However, construction-related odors and emissions from diesel-fueled heavy-duty vehicles, if perceptible, would dissipate as they mix with the surrounding air and would be of very limited duration. As such, objectionable odors during construction-related activities and emissions from diesel-fueled heavy-duty vehicles would not affect a substantial number of people.

The Project includes a HMA batch plant, RAP plant, and concrete batch plant. Potential odor sources associated with operation-related activities could originate from fumes from the asphalt batch plant, diesel exhaust from off-road haul equipment, and diesel exhaust from incoming and out-going diesel-fueled heavy-duty transport vehicles. As presented in **Table 8**, asphalt batch plants are considered to have potentially significant impacts on receptors located within one (1) mile. The site is located in a generally rural area surrounded by agricultural uses; the nearest residential receptors (a row of houses) are located approximately 800 feet (0.15 mile) east of the Project site and the nearest school is located approximately three (3) miles east of the Project site. There are no other sensitive receptors such as schools, day-care centers, or hospitals nearby. During operation, the various processing plants and diesel-powered vehicles and equipment in use on-site would create localized odors. As it is expected that many of the truck delivery and shipments would take place during peak hours, these odors would be temporary and would not likely be noticeable for extended periods of time beyond the Project’s site boundaries. Furthermore, the Project is subject to Air District permit requirements, including Rule 4102 (Nuisance). Because the sources of odors within the Project site will dissipate with distance and should not reach an objectionable level at the nearby residence the Project would not create or expose existing residents to objectionable odors. ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

Cumulative Impact Analysis:

***Less Than Significant Impact***

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. As noted earlier, the Project contains an asphalt batch plant that has the potential to create objectionable odors. However, the Project will be subject to Air District Rule 4102 (Nuisance) and other applicable Air District rules, regulations, and permit requirement. Also, Tulare County General Plan Policy AG-1.14 Right-to-Farm Noticing will be implemented. As such, the Project will not



expose a substantial number of people to objectionable odors. Therefore, ***Less Than Significant Cumulate Impacts*** related to this Checklist Item will occur.

Mitigation:

***None Required.***

Conclusion:

***Less Than Significant Impact***

The Project's asphalt batch plant has the potential as a source of nuisance odors. Existing agricultural sources (e.g., dairies) present permanent odors in the Project vicinity that could affect nearby receptors (i.e., rural residences). Implementation of applicable Air District rules, regulations, and permit requirements and General Plan Policy (i.e., AG-1.14 Right-to-Farm) would reduce objectionable odors. As such, the Project will not expose a substantial number of people to objectionable odors. Therefore, ***Less Than Significant Project-specific and Cumulative Impacts*** related to this Checklist Item will occur.

### **GREENHOUSE GAS IMPACTS**

**a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Project Impact Analysis:

***Less Than Significant Impact***

In addition to their GAMAQI and Guidance for Agencies documents, the Air District adopted the policy: *District Policy – Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency* to assist permit applicants and project proponents in assessing the impacts of project specific GHG emissions from stationary source projects.<sup>63</sup> This policy applies to projects for which the Air District has discretionary approval authority over the project and serves as the lead agency for CEQA purposes; however, land use agencies can refer to it as guidance for projects that include stationary sources of emissions.<sup>64</sup> The policy summarizes the Air District's evaluation process for determining the significance of GHG-related impacts for stationary source projects as presented in **Figure 4**.<sup>65</sup>

The Air District has determined that, “[p]rojects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement BPS.”<sup>66</sup>

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<sup>63</sup> Air District, Air District Policy. Agency. <http://www.valleyair.org/Programs/CCAP/12-17-09/2%20CCAP%20-%20FINAL%20District%20Policy%20CEQA%20GHG%20-%20Dec%2017%202009.pdf>. Accessed November 2019.

<sup>64</sup> Air District, Fact Sheet: Addressing Greenhouse Gas Emissions Impact under the California Environmental Quality Act (CEQA) – Stationary Source Projects. Accessed November 2019 at: [http://www.valleyair.org/Programs/CCAP/bps/Fact\\_Sheet\\_Stationary\\_Sources.pdf](http://www.valleyair.org/Programs/CCAP/bps/Fact_Sheet_Stationary_Sources.pdf).

<sup>65</sup> Air District, GAMAQI. Figure 6. Page 113 and, Air District Policy. Page10.

<sup>66</sup> Air District. Air District Policy. Page 8.



Section 15064.4(b) of the CEQA Guidelines states that a lead agency should consider the following three considerations when determining the significance of impacts from GHG emissions.

- “(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
- (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (see, e.g., section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project’s incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project’s consistency with the State’s long-term climate goals or strategies, provided that substantial evidence supports the agency’s analysis of how those goals or strategies address the project’s incremental contribution to climate change and its conclusion that the project’s incremental contribution is not cumulatively considerable.”<sup>67</sup>

The Tulare County Climate Action Plan (CAP) was adopted in 2012 to address AB 32 2020 targets and ARB’s 2008 Scoping Plan and was updated in 2018 to address SB 32 2030 targets and ARB’s 2017 Scoping Plan. The CAP states, “The 2018 CAP Update includes an additional method of determining project consistency with the CAP and 2030 targets. Projects subject to CEQA review could use a checklist containing design features and measures that are needed to determine consistency. Large projects (500-unit subdivisions and 100,000 square feet of retail or equivalent intensity for other uses) and new specific plans should provide a greenhouse gas analysis report quantifying GHG emissions to demonstrate that the project emissions are at least 31 percent below 2015 levels by 2030 or 9 percent below BAU emissions in 2030. These are the amounts currently required from development related sources to demonstrate consistency with SB 32 2030 targets. Smaller projects may also prepare a GHG analysis report if the checklist is not appropriate for a particular project or is deemed necessary by the project proponent or County staff. The GHG analysis should incorporate as many measures as possible from the CalEEMod mitigation component as described in Table 15 [of the CAP Update] and can take credit for 2017 Scoping Plan measures that have not been incorporated into CalEEMod but that will be adopted prior to 2030 such as 50 percent RPS.”<sup>68</sup>

The CAP fulfills the requirements of consideration #3 as a local plan for the reduction or mitigation of greenhouse gas emissions. The CAP includes strategies to reduce GHG emissions through compliance with relevant General Plan policies and statewide GHG regulations. The 2018 CAP indicates that the County is on track to achieve the AB 32 2020 targets with the existing CAP measures and includes new targets for 2030. The CAP target for 2030 is a per capita rate of 4.18

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<sup>67</sup> CEQA Guidelines § 15064.4(b).

<sup>68</sup> Tulare County Climate Action Plan. December 2018 Update. Page 73. Accessed November 2019 at: <http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/220Climate%20Action%20Plan/CLIMATE%20ACTION%20PLAN%202018%20UPDATE.pdf>.



tons per person in 2030. This would require an 8.6 percent reduction from business as usual in 2030 accounting for regulations currently in place.

The CAP focuses on residential and commercial development. CAP targets are not intended for Industrial process emissions since they are subject to Cap-and-Trade. Industrial projects with large numbers of employees and air-conditioned buildings would be subject to the CAP targets related to building energy efficiency and employee commuting. As the Project will use the existing on-site residential unit as an office it includes no new buildings and will require 15-20 employees. No asphalt or concrete industry-specific local measures are included in the CAP; however, the Project will comply State regulations that apply to fuels used by Project trucks and equipment, vehicle emission standards, and electricity consumed by the Project that will reduce Project emissions. For industrial projects where the Air District is a Responsible Agency, the project would be expected to implement BPS as included in the Air District's policies and guidelines on the processes and stationary equipment that emit greenhouse gases to levels that meet or exceed state targets and may be subject to Cap-and-Trade Program requirements. As the Project requires submittal of Authority to Construct (ATC) permits and Permits to Operate (PTO) the Air District is a Responsible Agency. Therefore, the following analysis provides a quantitative analysis of its GHG emissions for informational purposes only and assesses compliance with plans and regulations adopted to reduce or mitigate GHG emissions.

The State's regulatory program implementing the 2008 Scoping Plan is now fully mature. All regulations envisioned in the Scoping Plan have been adopted by the responsible agencies and the effectiveness of those regulations has been estimated by the agencies during the adoption process and then are tracked to verify their effectiveness after implementation. As previously noted, the State is on track to achieve the 2020 target with adopted regulations and has adopted the 2017 Scoping Plan Update which provides the State's strategy to achieve the SB 32 2030 target of a 40 percent reduction in emissions compared to 1990 levels. The 2017 Scoping Plan includes existing and new measures that when implemented are expected to achieve the SB 32 2030 target. The 2017 Scoping Plan achieves substantial reductions beyond 2020 through continued implementation of existing regulations. Other regulations will be adopted to implement recently enacted legislation including SB 350, which requires an increase in renewable energy from 33 percent to 50 percent and doubling the efficiency of existing buildings by 2030. The Legislature extended the Cap-and-Trade Program through 2030. Cap-and-Trade provides a mechanism to make up shortfalls in other strategies if they occur.<sup>69</sup> In addition, the strategy relies on reductions achieved in implementing the ARB Short-Lived Climate Pollutant (SLCP) Reduction Strategy to reduce pollutants not previously controlled for climate change such as black carbon, methane, and hydrofluorocarbons (HFCs).<sup>70</sup>

The State's regulatory program is able to target both new and existing development because the two most important strategies—motor vehicle fuel efficiency and emissions from electricity generation—obtain reductions equally from existing and new sources. This is because all vehicle operators use cleaner low carbon fuels and buy vehicles subject to the fuel efficiency regulations, and all building owners or operators purchase cleaner energy from the grid that is produced by increasing percentages of renewable fuels. This includes regulations on mobile sources such as the

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<sup>69</sup> ARB. California's 2017 Climate Change Scoping Plan. Accessed November 2019at: [https://www.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_2017.pdf](https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf).

<sup>70</sup> ARB. Short-Lived Climate Pollutant Reduction Strategy. Accessed November 2019 at <https://ww2.arb.ca.gov/resources/documents/final-short-lived-climate-pollutant-reduction-strategy-march-2017>.



Pavley standards that apply to all vehicles purchased in California, the Low Carbon Fuel Standard (LCFS) that applies to all fuel used in California, and the Renewable Portfolio Standard (RPS) and Renewable Energy Standard that apply to utilities providing electricity to all California homes and businesses. These regulations apply to the Project's most important emission sources (on-road and off-road motor vehicles and energy use) and contribute toward meeting State GHG reduction targets. Measures targeted exclusively at new development include Title 24 Building Efficiency Standards, the CalGreen Building Code, and water conservation measures applicable to new construction.

The State's regulatory strategy relies on Cap-and-Trade Program to achieve most reductions from the industrial sector and it applies to 80 percent of the State's emission inventory. Cap-and-Trade applies to large sources such as electrical utilities, fuel producers and refiners, and cement manufacturers. The Cap-and-Trade Program also addresses emissions from fuels and from combustion of other fossil fuels not directly covered at large sources in the Program. The additional costs for fuel and electricity to comply with Cap-and-Trade are spread throughout the economy to users of the fuel and electricity such as the project.

The analysis for this Project assesses consistency with AB 32's goal in whole or part by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities. The analysis shows the extent to which the Project complies with adopted regulations. At this point in time, no additional reductions are required from new development beyond regulations for the State to achieve its 2020 target. The 2030 target will require a reduction from 431 metric tons of CO<sub>2</sub> equivalents (MTCO<sub>2</sub>e) to 260 MTCO<sub>2</sub>e or 40 percent from 1990 levels. After accounting for projected growth of approximately 0.8 percent per year an average decrease of 5.2 percent per year from the State GHG inventory will be required to achieve the target. The 2017 Scoping Plan Update includes a strategy for achieving the needed reductions, but does not identify an amount required specifically from new development. However, all GHG emission sources within development projects are subject to GHG regulations at some level.

The quantitative analysis prepared for the Project (summarized in **Table 23**) assesses the extent to which the Project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting under Consideration # 1. As the Project is a new facility, there are no baseline activities in which to compare the Project to; as such, Project emissions are evaluated at the proposed Air District permit limits and represent the total increase in emissions. The analysis assumes a worst-case emissions scenario in which the Project would reach the permit limit in its first year of operation and reflects compliance with existing regulations that apply to the Project.

The Tulare County CAP includes a threshold approach that complies with Consideration #2 for commercial and residential development based on a percent reduction from BAU in 2030, but it is not applicable to asphalt and concrete production industries. The CAP found that additional reductions from industrial sources beyond regulations would not be required to reach the 2030 target since those emissions were subject to regulation by other entities such as Cap-and-Trade, which applies to 80 percent of the State's GHG emission inventory. .

Operational or long-term emissions occur over the life of the Project. Sources of emissions include the HMA, RAP, and concrete batch plants, motor vehicles and trucks, energy usage, waste generation, and area sources. Operational emissions were modeled for the permitted throughput limit, which reflects a worst-case emissions scenario. The emissions were modeled in 2020 using



CalEEMod and spreadsheet calculations using the EMFAC mobile source emission model and EPA emission factors. CalEEMod assumes compliance with some, but not all, applicable rules and regulations regarding energy efficiency, vehicle fuel efficiency, renewable energy usage, and other GHG reduction policies, as described in the CalEEMod User's Guide.

Full assumptions and model outputs are provided in the Health Risk Assessment report, Authority to Construct Applications, and Greenhouse Gas Analysis memo prepared by Alta Environmental (Appendix A of the DEIR), and the CalEEMod report included as Attachment A of this memo. The results of the GHG analysis for the Project operational emissions are presented in **Table 23**.

<b>Table 23. Project Greenhouse Gas Emissions</b>	
<b>Source</b>	<b>Emissions (MTCO<sub>2</sub>e per year)</b>
<b>Construction</b>	
On-site Emissions <sup>1</sup>	325
Off-site Emissions <sup>1</sup>	585
<b>Total Construction</b>	<b>909</b>
<b>On-Site Operations</b>	
HMA Dryer <sup>2</sup>	36,391
HMA Oil Heater <sup>2</sup>	539
On-site Haul Trucks <sup>2</sup>	257
On-site Off-Road Equipment <sup>2</sup>	698
Area Sources <sup>1</sup>	0.01
Energy <sup>1</sup>	45
Waste <sup>1</sup>	31
Water <sup>1</sup>	16
<b>Total On-Site Operations</b>	<b>37,977</b>
<b>Off-Site Operations</b>	
Off-site Haul Trucks and Delivery Vehicles <sup>3</sup>	4,485
Employee Vehicles <sup>3</sup>	118
<b>Total Off-Site Operations</b>	<b>4,604</b>
<b>Total Operations</b>	<b>43,490</b>
Notes: MTCO <sub>2</sub> e = metric tons of carbon dioxide equivalents. 1 Source:Health Risk Assessment (Attachment 2) prepared by Alta Environmental. Operational mobile sources not included as they were included in the calculations in Attachment A of this analysis. 2 Source:Greenhouse Gas Analysis memo prepared by Alta Environmental. 3 Source:Attachment A of this memo.	

As shown in **Table 23**, the Project would result in GHG emissions of 43,490 MTCO<sub>2</sub>e per year. The modeling includes the benefits of existing regulations that reduce Project emissions. The analysis presented above does not include new strategies proposed in the 2030 Scoping Plan Update. The Update provides alternatives in terms of their likelihood of implementation and ranges of reduction from the strategies. Measures already authorized by legislation are highly likely to be implemented, while measures requiring new legislation are less likely to go forward. A new round of motor vehicle fuel efficiency standards beyond 2025 when LEV III standards are at their maximum reduction level is highly likely. Changing heavy-duty trucks and off-road equipment to alternative fuels face greater technological hurdles and are less likely to provide dramatic reductions by 2030.



The 2030 emission limit is 260 MMTCO<sub>2</sub>e. The ARB estimates that the 2030 BAU (reference) Inventory will be 392 MMTCO<sub>2</sub>e—a reduction of 132 MMTCO<sub>2</sub>e, including existing policies and programs but not including known commitments that are already underway. The 2030 Scoping Plan Update includes the estimated GHG emissions by sector compared with 1990 levels that is presented in **Table 24**. The proposed plan would achieve the bulk of the reductions from Electric Power, Industrial fuel combustion, and Transportation. Cap-and-Trade would provide between 10 to 20 percent of the required reductions depending on the amounts achieved by the other reduction measures.

<b>Table 24. 2030 Scoping Plan Update Estimated Change in GHG Emissions by Sector</b>			
<b>Scoping Plan Sector</b>	<b>Emissions (MMTCO<sub>2</sub>e per year)</b>		
	<b>1990</b>	<b>2030 Proposed Plan Ranges</b>	<b>Percent Change from 1990</b>
Agriculture	26	24-25	-4 to -8
Residential and Commercial	44	38-40	-9 to -14
Electric Power	108	42-62	-43 to -61
High GWP	3	8-11	167 to 267
Industrial	98	77-87	-11 to -21
Recycling and Waste	7	8-9	14 to 29
Transportation (including TCU)	152	103-111	-27 to -32
Net Sink	-7	TBD	TBD
<b>Subtotal</b>	<b>431</b>	<b>300-345</b>	<b>-20 to -30</b>
Cap-and-Trade Program	N/A	40-85	N/A
<b>Total</b>	<b>431</b>	<b>260</b>	<b>-40</b>
<i>Notes:</i> GWP = Global Warming Potential; TCU = Transportation Communications and Utilities Source: ARB 2030 Scoping Plan Update			

Although the 2030 Scoping Plan Update focuses on state agency actions necessary to achieve the 2030 GHG limit, the ARB considers local governments essential partners in achieving the State's goals to reduce GHG emissions. The 2030 target will require an increase in the rate of emission reductions compared to what was needed to achieve the 2020 limit, and this will require action and collaboration at all levels, including local government action to complement and support State-level actions. For individual projects, the 2030 Scoping Plan Update suggests that all new land use development implement all feasible measures to reduce GHG emissions. The Scoping Plan does not define all feasible measures or attribute an amount of reductions required from new development beyond compliance with regulations; however, the CAP provides measures and reduction amounts that are feasible for commercial and residential development. No reduction amount or threshold was developed for industrial projects. Requiring the project operator to fully mitigate emissions without accounting for compliance with regulations would result in double mitigation, first by the regulated entity and then by the project operator purchasing electricity, fuel, and vehicles compliant with regulations in effect at the time of purchase and beyond that would violate constitutional nexus requirements.

Based on progress achieved to date and the strong likelihood that the measures included in the 2017 Scoping Plan Update will be implemented, it is reasonable to conclude that the Project is consistent with the 2017 Scoping Plan and will contribute a reasonable fair-share contribution to achieving the 2030 target. The fair share may very well be achieved through compliance with increasingly stringent State regulations that apply to energy production, fuels, and motor vehicles. As shown in **Table 24**, the state strategy relies on the Cap-and-Trade Program to make up any



shortfalls that may occur from the other regulatory strategies. The costs of Cap-and-Trade emission reductions will ultimately be passed on to the consumers of fuels, electricity and products produced by regulated industries, which includes the project and other purchasers of products and services. Therefore, the impact in terms of Considerations #1 and #2 would be less than significant.

As discussed above, the Project will result in GHG emissions from the construction of the Project and from the operations of the proposed production facilities (HMA, RAP and concrete plants), office (heating and cooling, cleaning supplies, etc.) as well as from on-site off-road equipment and off-site on-road vehicles (haul trucks for transport of raw material and finished product, outside services and deliveries, and employees trips). The Project will continue to comply with existing and future regulations, including the Cap-and-Trade program, State truck regulations, and Air District permit requirements, and the General Plan, Community Plan, and CAP will continue to be implemented through 2030. Therefore, ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

Cumulative Impact Analysis:

***Less Than Significant Impact***

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. The Project-related emissions would be considered to have a significant cumulative impact if project-specific impacts are determined to be significant. As previously noted, the Project is required to comply with applicable State GHG reduction program (including Cap-and-Trade and truck regulations) and is therefore, consistent with the reduction targets for years 2020 and 2030. As the proposed Project would result in Less Than Significant Project-specific Impacts, ***Less Than Significant Cumulative Impacts*** would also occur.

Mitigation:

***None Required.***

Conclusion:

***Less Than Significant Impact***

As previously noted, the Project is consistent with the State's reduction targets established for 2020 and 2030. As such, the Project would not generate GHG emissions that would have a significant impact on the environment. ***Less Than Significant Project-specific and Cumulative Impacts*** related to this Checklist Item will occur.

**b) Would the project conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

Impact Analysis:

***Less Than Significant Impact***

To be considered a less than significant impact, the Project must demonstrate consistency with the Tulare County CAP, the Air District's Climate Change Action Plan, and the ARB's 2008 Scoping Plan and 2017 Scoping Plan Update.

***Tulare County CAP:*** The 2008 CAP identifies General Plan policies in place to assist the County in reducing GHG emissions. **Table 25** identifies these policies by policy titles. For a discussion of



the benefits of the policies, refer to the CAP.<sup>71</sup> The Project will implement the applicable General Plan policies.

<b>Table 25. General Plan Policies Having Greenhouse Gas Emission Reductions</b>			
<b>Sustainability and Greenhouse Gas Emissions</b>			
PF-1.1	Maintain Urban Edges	ERM-1.2	Development in Environmentally Sensitive Areas
PF-1.2	Location of Urban Development	ERM-1.3	Encourage Cluster Development
PF-1.3	Land Uses in UDBs/HDBs	ERM-1.4	Protect Riparian Management Plans and Mining Reclamation Plans
PF-1.4	Available Infrastructure	ERM-1.6	Management of Wetlands
AG-1.7	Conservation Easements	ERM-1.7	Planting of Native Vegetation
AG-1.8	Agriculture Within Urban Boundaries	ERM-1.8	Open Space Buffers
AG-1.11	Agricultural Buffers	ERM-1.14	Mitigation and Conservation Banking Program
AG-1.14	Right to Farm Noticing	ERM-4.1	Energy Conservation and Efficiency Measures
AG-2.11	Energy Production	ERM-4.2	Streetscape and Parking Area Improvements for Energy Conservation
AG-2.6	Biotechnology and Biofuels	ERM-4.3	Local and State Programs
AQ-1.6	Purchase of Low Emission/Alternative Fuel Vehicles	ERM-4.4	Promote Energy Conservation Awareness
AQ-1.7	Support Statewide Global Warming Solutions	ERM-4.6	Renewable Energy
AQ-1.8	Greenhouse Gas Emissions Reduction Plan	ERM-4.7	Reduce Energy Use in County Facilities**
AQ-1.9	Off-Site Measures to Reduce Greenhouse Gas Emissions*	ERM-4.8	Energy Efficiency Standards**
AQ-1.10	Alternative Fuel Vehicle Infrastructure**	ERM-5.1	Parks as Community Focal Points
AQ-2.1	Transportation Demand Management Programs	ERM-5.6	Location and Size Criteria for Parks
AQ-2.3	Transportation and Air Quality	ERM-5.15	Open Space Preservation
AQ-2.4	Transportation Management Associations	HS-1.4	Building and Codes
AQ-2.5	Ridesharing	TC-2.1	Rail Service
AQ-3.1	Location of Support Services	TC-2.4	High Speed Rail (HSR)
AQ-3.2	Infill Near Employment	TC-2.7	Rail Facilities and Existing Development*
AQ-3.3	Street Design	TC-4.4	Nodal Land Use Patterns that Support Public Transit
AQ-3.5	Alternative Energy Design	TC-5.1	Bicycle/Pedestrian Trail System
AQ-3.6	Mixed Use Development	TC-5.2	Consider Non-Motorized Modes in Planning and Development
LU-1.1	Smart Growth and Healthy Communities	TC-5.3	Provisions for Bicycle Use
LU-1.2	Innovative Development	TC-5.4	Design Standards for Bicycle Routes
LU-1.3	Prevent Incompatible Uses	TC-5.5	Facilities
LU-1.4	Compact Development	TC-5.6	Regional Bicycle Plan
LU-1.8	Encourage Infill Development	TC-5.7	Designated Bike Paths
LU-2.1	Agricultural Lands	TC-5.8	Multi-Use Trails
LU-3.2	Cluster Development	PFS-1.3	Impact Mitigation
LU-3.3	High-Density Residential Locations	PFS-1.15	Efficient Expansion
LU-4.1	Neighborhood Commercial Uses	PFS-2.1	Water Supply
LU-7.1	Distinctive Neighborhoods	PFS-2.2	Adequate Systems
LU-7.2	Integrate Natural Features	PFS-3.3	New Development Requirements
LU-7.3	Friendly Streets	PFS-5.3	Solid Waste Reduction
LU-7.15	Energy Conservation	PFS-5.4	County Usage of Recycled Materials and Products
ED-2.3	New Industries	PFS-5.5	Private Use of Recycled Products
ED-2.8	Jobs/Housing Ratio	PFS-8.3	Location of School Sites
ED-5.9	Bikeways	PFS-8.5	Government Facilities and Services
ED-6.1	Revitalization of Community Centers	WR-1.5	Expand Use of Reclaimed Wastewater
ED-6.2	Comprehensive Redevelopment Plan	WR-1.6	Expand Use of Reclaimed Water
ED-6.3	Entertainment Venues		
ED-6.4	Culturally Diverse Business		
ED-6.5	Intermodal Hubs for Community and Hamlet Core Areas		
ED-6.7	Existing Commercial Centers		
SL-3.1	Community Centers and Neighborhoods		

<sup>71</sup> Tulare County. Climate Action Plan (2010). Accessed November 2019 at: <http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/ClimateActionPlan.pdf>; and Climate Action Plan Update (2018) at: <http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/220Climate%20Action%20Plan/CLIMATE%20ACTION%20PLAN%202018%20UPDATE.pdf>.



<b>Table 25. General Plan Policies Having Greenhouse Gas Emission Reductions</b>			
<b>Sustainability and Greenhouse Gas Emissions</b>			
ERM-1.1	Protection of Rare and Endangered Species	WR-3.5	Use of Native and Drought Tolerant Landscaping
<p>Source: Tulare County Climate Action Plan (2012), Table 20.</p> <p>* This GHG reduction policy is not included in the Tulare County CAP, but is included in the Tulare County General Plan 2030 Update.</p> <p>** This GHG reduction policy is not included in Table 20 of the CAP, but it is included in the detailed list of policies provided within pages 64-77 of the CAP.</p>			

As previously discussed, the 2018 CAP Update address SB 32 2030 targets and ARB's 2017 Scoping Plan and focuses on residential and commercial development and CAP reduction targets are not intended for Industrial process emissions since they are subject to Cap-and-Trade. No asphalt or concrete industry-specific local measures are included in the CAP; however, the Project will comply State regulations that apply to fuels used by Project trucks and equipment, vehicle emission standards, and electricity consumed by the Project that will reduce Project emissions. As the Air District is a Responsible Agency for this Project, the Project would be expected to implement applicable BPS as included in the Air District's policies and guidelines on the processes and stationary equipment that emit greenhouse gases to levels that meet or exceed state targets and may be subject to Cap-and-Trade Program requirements. Therefore, ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

***Air District Climate Change Action Plan:*** The Air District adopted the Climate Change Action Plan (CCAP) in 2008, which included a carbon-exchange bank for voluntary GHG reductions.<sup>72</sup> The Carbon Exchange Program is not applicable to this Project, and the Project would not require Voluntary Greenhouse Gas Mitigation Agreements. The Project would comply with all applicable GHG regulations contained in the CCAP. ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

***State Scoping Plans:*** The 2018 CAP Update includes an additional method of determining project consistency with the CAP and 2030 targets. Projects subject to CEQA review could use a checklist containing design features and measures that are needed to determine consistency with the CAP. As shown in **Table 26**, the Project is consistent with most of the strategies, while others are not applicable to the Project. As discussed earlier, the 2017 Scoping Plan Update strategies primarily rely on increasing the stringency of existing regulations for which the project would continue to comply with and support through the project's design and implementation of the General Plan goals and policies.

<b>Table 26. Consistency with the 2017 Scoping Plan Update</b>	
<b>Scoping Plan Measure</b>	<b>Project Consistency</b>
<b>SB 350 50% Renewable Mandate.</b> Utilities subject to the legislation will be required to increase their renewable energy mix from 33% in 2020 to 50% in 2030.	<b>Consistent.</b> The Project will purchase electricity from a utility subject to the SB 350 Renewable Mandate.
<b>SB 350 Double Building Energy Efficiency by 2030.</b> This is equivalent to a 20 percent reduction from 2014	<b>Not Applicable.</b> This measure applies to existing buildings. The Project will utilize the existing

<sup>72</sup> SJVAPCD Climate Change Action Plan. Accessed November 2019 at: [http://www.valleyair.org/Programs/CCAP/CCAP\\_menu.htm](http://www.valleyair.org/Programs/CCAP/CCAP_menu.htm).



<b>Table 26. Consistency with the 2017 Scoping Plan Update</b>	
<b>Scoping Plan Measure</b>	<b>Project Consistency</b>
building energy usage compared to current projected 2030 levels	residential unit as an office and does not include new structures.
<b>Low Carbon Fuel Standard.</b> This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.	<b>Consistent.</b> Vehicles accessing the Project site will use fuel containing lower carbon content as the fuel standard is implemented.
<b>Mobile Source Strategy (Cleaner Technology and Fuels Scenario).</b> Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.	<b>Consistent.</b> The Project will purchase new work trucks when replacement is required and employees can be expected to purchase increasing numbers of more fuel-efficient and zero emission cars and trucks each year.
<b>Sustainable Freight Action Plan.</b> The plan's target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.	<b>Not Applicable.</b> The measure applies to owners and operators of trucks and freight operations. The Project does operate a haul truck fleet to transport both raw materials and final product. The haul trucks that access the site must be capable of handling heavy loads that are currently not feasible with zero emission technology. However, during the life of the Project, ZEV haul trucks may be possible.
<b>Short-Lived Climate Pollutant (SLCP) Reduction Strategy.</b> The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.	<b>Not Applicable.</b> The Project does not include sources that produce significant quantities of methane or black carbon. Diesel haul trucks accessing the site will achieve significant reductions in PM <sub>2.5</sub> with adopted regulations that will reduce this source of black carbon.
<b>SB 375 Sustainable Communities Strategies.</b> Requires Regional Transportation Plans to include a sustainable communities strategy for reduction of per capita vehicle miles traveled.	<b>Not Applicable.</b> The Project is not within an SCS priority area and so is not subject to requirements applicable to those areas. Only 15-20 employees will be required for this Project.
<b>Post-2020 Cap-and-Trade Program.</b> The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.	<b>Consistent.</b> The post-2020 Cap-and-Trade Program indirectly affects people who use the products and services produced by the regulated industrial sources when increased costs of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA Projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the program's first compliance period.
<b>Natural and Working Lands Action Plan.</b> The ARB is working in coordination with several other agencies at the federal, state, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the governor's Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon sequestration potential for California's natural and working land.	<b>Not Applicable.</b> The Project is an asphalt and concrete production facility that is not suitable site for sequestration.
Source: ARB, 2017 Scoping Plan Update	



As discussed above, since the Project will comply with existing and future regulations, and the General Plan and CAP will continue to be implemented through 2030, the Project would not result in significant greenhouse gas impacts. Therefore, ***Less Than Significant Cumulative Impacts*** related to this Checklist Item will occur.

Cumulative Impact Analysis:

***Less Than Significant Impact***

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. As previously discussed, the Project is consistent with the applicable Scoping Plan reductions measures and the Air District's CCAP. The Project will implement applicable Tulare County General Plan and Tulare County CAP policies. As such, the Project will not conflict with applicable state, regional, and local plans, policies or regulation adopted for the purpose of reducing the emissions of greenhouse gases. ***Less Than Significant Cumulative Impacts*** related to this Checklist Item will occur.

Mitigation Measures:

***None Required***

Conclusion:

***Less Than Significant Impact***

As the proposed Project is consistent with aforementioned plans, policies, and regulations, ***Less Than Significant Project-specific and Cumulative Impacts*** related to this Checklist Item would occur.



**ATTACHMENT A**

**EMISSION CALCULATION TABLES**



**TABLE 1. Annual Vehicle Miles Traveled**

	Vehicle Type	Vehicle % of		Vehicles		Total Annual Vehicle Trips	Trips @ 30		Trips @ 36		Trips @ 68		Trips @ 72		Annual Vehicle Miles Traveled
		Trips	Trips	Entering	Exiting		Miles	Miles	Miles	Miles	Miles	Miles			
<b>HMA Plant</b>															
Aggregate Material Delivery Trucks	HHD	13.1		4,800	4,800	9,600	2,880	3,360	0	3,360	0	3,360		456,000	
Oil Delivery Trucks <sup>1</sup>	HHD	0.6		222	222	444	133	155	0	155	0	155		21,090	
Propane Delivery Trucks <sup>1</sup>	HHD	0.1		41	41	82	25	29	0	29	0	29		3,895	
HMA Trucks	HHD	16.4		6,000	6,000	12,000	3,600	4,200	0	4,200	0	4,200		570,000	
<b>Concrete Batch Plant</b>															
Aggregate Material Delivery Trucks	HHD	17.5		6,400	6,400	12,800	3,840	4,480	0	4,480	0	4,480		608,000	
Cement & Fly Ash Delivery Trucks	HHD	3.1		1,120	1,120	2,240	672	784	0	784	0	784		106,400	
Ready Mix Concrete Trucks	HHD	27.3		10,000	10,000	20,000	6,000	7,000	0	7,000	0	7,000		950,000	
<b>RAP Plant</b>															
Recycled Material End Dumps	HHD	2.8		1,023	1,023	2,046	614	716	0	716	0	716		97,185	
Recycled Material Delivery Trucks	MHD	1.7		625	625	1,250	375	438	0	438	0	438		59,375	
Recycled Base Trucks	HHD	3.3		1,200	1,200	2,400	720	840	0	840	0	840		114,000	
<b>Other</b>															
Fuel Trucks <sup>1</sup>	HHD	0.1		26	26	52	16	18	0	18	0	18		2,470	
Outside Services <sup>2</sup>	LDT1, LTD2	0.7		250	250	500	150	175	0	175	0	175		23,750	
Other Materials/Services <sup>3</sup>	MDV	0.7		250	250	500	425	0	75	0	75	0		17,850	
Employee Trips <sup>4</sup>	LDA, LDT1, LDT2, MDV	12.8		4,680	4,680	9,360	7,956	0	1,404	0	1,404	0		334,152	
<b>Total</b>		<b>100.0</b>		<b>36,637</b>	<b>36,637</b>	<b>73,274</b>								<b>3,364,167</b>	
1 Identified as "Other Trucks" in Table 3.6-4 of the Energy Chapter of the DEIR .															
2 Identified as "Light-Duty Vehicle" in Table 3.6-4 of the Energy Chapter of the DEIR .															
3 Identified as "Light Truck/Van" in Table 3.6-4 of the Energy Chapter of the DEIR .															
4 Identified as "Car" in Table 3.6-4 of the Energy Chapter of the DEIR .															

<sup>1</sup> Identified as "Other Trucks" in Table 3.6-4 of the Energy Chapter of the DEIR .

<sup>2</sup> Identified as "Light-Duty Vehicle" in Table 3.6-4 of the Energy Chapter of the DEIR .

<sup>3</sup> Identified as "Light Truck/Van" in Table 3.6-4 of the Energy Chapter of the DEIR .

<sup>4</sup> Identified as "Car" in Table 3.6-4 of the Energy Chapter of the DEIR .



TABLE 2. Emission Factors (gm/mile)

	ROG	NOx	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O
HHD	0.10705975737	3.55129388383	0.43376326704	0.01355274964	0.05885795227	0.05631178331	1434.53227587454	0.00497264844	0.22548849673
LDA	0.01129149476	0.04570780831	0.69951971518	0.00275362180	0.00150226649	0.00138130840	278.26136649430	0.00288514003	0.00500312580
LDT1	0.03761195473	0.15462213328	1.61552759912	0.00323651690	0.00237041015	0.00217967744	327.05929913594	0.00837316344	0.01090342623
LDT2	0.02202142438	0.11435908412	1.09448676165	0.00352698389	0.00160696258	0.00147761622	356.41182040560	0.00521451588	0.00856957914
MDV	0.02975703484	0.14005957089	1.28266191763	0.00438462860	0.00156313397	0.00143819484	443.07927395600	0.00658570867	0.01027934699
MHD	0.23453674974	3.39999540221	0.62693902618	0.01047475783	0.09099962138	0.08706301804	1108.73280983864	0.01089362457	0.17427735769



TABLE 3. Annual Off-Site Vehicle Emissions (tons/year)

	ROG	NOx	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
<b>HMA Plant</b>										
Aggregate Material Delivery Trucks (HHD)	0.0538	1.7851	0.2180	0.0068	0.0296	0.0283	721.0733	0.0025	0.1133	685.0380
Oil Delivery Trucks (HHD)	0.0025	0.0826	0.0101	0.0003	0.0014	0.0013	33.3496	0.0001	0.0052	31.6830
Propane Delivery Trucks (HHD)	0.0005	0.0152	0.0019	0.0001	0.0003	0.0002	6.1592	0.0000	0.0010	5.8514
HMA Trucks (HHD)	0.0673	2.2313	0.2725	0.0085	0.0370	0.0354	901.3416	0.0031	0.1417	856.2975
<b>Concrete Batch Plant</b>										
Aggregate Material Delivery Trucks (HHD)	0.0718	2.3801	0.2907	0.0091	0.0394	0.0377	961.4310	0.0033	0.1511	913.3840
Cement & Fly Ash Delivery Trucks (HHD)	0.0126	0.4165	0.0509	0.0016	0.0069	0.0066	168.2504	0.0006	0.0264	159.8422
Ready Mix Concrete Trucks (HHD)	0.1121	3.7189	0.4542	0.0142	0.0616	0.0590	1,502.2360	0.0052	0.2361	1427.1625
<b>RAP Plant</b>										
Recycled Material End Dumps (HHD)	0.0115	0.3804	0.0465	0.0015	0.0063	0.0060	153.6787	0.0005	0.0242	145.9987
Recycled Material Delivery Trucks (MHD)	0.0154	0.2225	0.0410	0.0007	0.0060	0.0057	72.5663	0.0007	0.0114	68.9503
Recycled Base Trucks (HHD)	0.0135	0.4463	0.0545	0.0017	0.0074	0.0071	180.2683	0.0006	0.0283	171.2595
<b>Other</b>										
Fuel Trucks (HHD)	0.0003	0.0097	0.0012	0.0000	0.0002	0.0002	3.9058	0.0000	0.0006	3.7106
Outside Services (LDT1)	0.0005	0.0020	0.0211	0.0000	0.0000	0.0000	4.2812	0.0001	0.0001	3.9260
Outside Services (LDT2)	0.0003	0.0015	0.0143	0.0000	0.0000	0.0000	4.6654	0.0001	0.0001	4.2655
Other Materials/Services (MDV)	0.0006	0.0028	0.0252	0.0001	0.0000	0.0000	8.7181	0.0001	0.0002	7.9688
Employee Trips (LDA)	0.0010	0.0042	0.0644	0.0003	0.0001	0.0001	25.6237	0.0003	0.0005	23.3826
Employee Trips (LDT1)	0.0035	0.0142	0.1488	0.0003	0.0002	0.0002	30.1172	0.0008	0.0010	27.6186
Employee Trips (LDT2)	0.0020	0.0105	0.1008	0.0003	0.0001	0.0001	32.8201	0.0005	0.0008	30.0066
Employee Trips (MDV)	0.0027	0.0129	0.1181	0.0004	0.0001	0.0001	40.8009	0.0006	0.0009	37.2941
<b>Total Annual Emissions</b>	<b>0.3717</b>	<b>11.7368</b>	<b>1.9343</b>	<b>0.0459</b>	<b>0.1967</b>	<b>0.1882</b>	<b>4,851.2869</b>	<b>0.0192</b>	<b>0.7431</b>	<b>4,603.6400</b>
Average Daily Emission (at 312 days/year)	2.3824	75.2358	12.3995	0.2942	1.2610	1.2063				



**ATTACHMENT B**  
**AMICUS CURIAE BRIEF**



CASE NO. S219783

IN THE SUPREME COURT OF CALIFORNIA

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SIERRA CLUB, REVIVE THE SAN JOAQUIN, and  
LEAGUE OF WOMEN VOTERS OF FRESNO,  
*Plaintiffs and Appellants*

v.

COUNTY OF FRESNO,  
*Defendant and Respondent*

FRIANT RANCH, L.P.,  
*Real Party in Interest and Respondent*

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After a Decision by the Court of Appeal, filed May 27, 2014  
Fifth Appellate District Case No. F066798

Appeal from the Superior Court of California, County of Fresno  
Case No. 11CECG00726

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**AMICUS CURIAE BRIEF OF  
SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT IN  
SUPPORT OF DEFENDANT AND RESPONDENT, COUNTY OF FRESNO AND  
REAL PARTY IN INTEREST AND RESPONDENT, FRIANT RANCH, L.P.**

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## I. INTRODUCTION.

The San Joaquin Valley Unified Air Pollution Control District ("Air District") respectfully submits that the Court of Appeal erred when it held that the air quality analysis contained in the Environmental Impact Report ("EIR") for the Friant Ranch development project was inadequate under the California Environmental Quality Act ("CEQA") because it did not include an analysis of the correlation between the project's criteria air pollutants and the potential adverse human health impacts. A close reading of the portion of the administrative record that gave rise to this issue demonstrates that the Court's holding is based on a misunderstanding of the distinction between toxic air contaminants and criteria air pollutants.

Toxic air contaminants, also known as hazardous air pollutants, are those pollutants that are known or suspected to cause cancer or other serious health effects, such as birth defects. There are currently 189 toxic air contaminants (hereinafter referred to as "TACs") regulated by the United States Environmental Protection Agency ("EPA") and the states pursuant to the Clean Air Act. 42 U.S.C. § 7412. Common TACs include benzene, perchloroethylene and asbestos. *Id.* at 7412(b).

In contrast, there are only six (6) criteria air pollutants: ozone, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide and lead. Although criteria air pollutants can also be harmful to human health,



they are distinguishable from TACs and are regulated separately. For instance, while criteria pollutants are regulated by numerous sections throughout Title I of the Clean Air Act, the regulation of TACs occurs solely under section 112 of the Act. *Compare* 42 U.S.C. §§ 7407 – 7411 & 7501 – 7515 *with* 42 U.S.C. § 7411.

The most relevant difference between criteria pollutants and TACs for purposes of this case is the manner in which human health impacts are accounted for. While it is common practice to analyze the correlation between an individual facility's TAC emissions and the expected localized human health impacts, such is not the case for criteria pollutants. Instead, the human health impacts associated with criteria air pollutants are analyzed and taken into consideration when EPA sets the national ambient air quality standard ("NAAQS") for each criteria pollutant. 42 U.S.C. § 7409(b)(1). The health impact of a particular criteria pollutant is analyzed on a regional and not a facility level based on how close the area is to complying with (attaining) the NAAQS. Accordingly, while the type of individual facility / health impact analysis that the Court of Appeal has required is a customary practice for TACs, it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task.

It is clear from a reading of both the administrative record and the Court of Appeal's decision that the Court did not have the expertise to fully



appreciate the difference between TACs and criteria air pollutants. As a result, the Court has ordered the County of Fresno to conduct an analysis that is not practicable and not likely yield valid information. The Air District respectfully requests that this portion of the Court of Appeal's decision be reversed.

**II. THE COURT OF APPEAL ERRED IN FINDING THE FRIANT RANCH EIR INADEQUATE FOR FAILING TO ANALYZE THE SPECIFIC HUMAN HEALTH IMPACTS ASSOCIATED CRITERIA AIR POLLUTANTS.**

Although the Air District does not take lightly the amount of air emissions at issue in this case, it submits that the Court of Appeal got it wrong when it required Fresno County to revise the Friant Ranch EIR to include an analysis correlating the criteria air pollutant emissions associated with the project with specific, localized health-impacts. The type of analysis the Court of Appeal has required will not yield reliable information because currently available modeling tools are not well suited for this task. Further, in reviewing this issue de novo, the Court of Appeal failed to appreciate that it lacked the scientific expertise to appreciate the significant differences between a health risk assessment commonly performed for toxic air contaminants and a similar type of analysis it felt should have been conducted for criteria air pollutants.

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**A. Currently Available Modeling Tools are not Equipped to Provide a Meaningful Analysis of the Correlation between an Individual Development Project's Air Emissions and Specific Human Health Impacts.**

In order to appreciate the problematic nature of the Court of Appeals' decision requiring a health risk type analysis for criteria air pollutants, it is important to understand how the relevant criteria pollutants (ozone and particulate matter) are formed, dispersed and regulated.

Ground level ozone (smog) is not directly emitted into the air, but is formed when precursor pollutants such as oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOCs) are emitted into the atmosphere and undergo complex chemical reactions in the process of sunlight.<sup>1</sup> Once formed, ozone can be transported long distances by wind.<sup>2</sup> Because of the complexity of ozone formation, a specific tonnage amount of NO<sub>x</sub> or VOCs emitted in a particular area does not equate to a particular concentration of ozone in that area. In fact, even rural areas that have relatively low tonnages of emissions of NO<sub>x</sub> or VOCs can have high levels of ozone concentration simply due to wind transport.<sup>3</sup> Conversely, the San Francisco Bay Area has six times more NO<sub>x</sub> and VOC emissions per square mile than the San Joaquin Valley, but experiences lower

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<sup>1</sup> See United States Environmental Protection Agency, *Ground-level Ozone: Basic Information*, available at: <http://www.epa.gov/airquality/ozonepollution/basic.html> (visited March 10, 2015).

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*



concentrations of ozone (and better air quality) simply because sea breezes disperse the emissions.<sup>4</sup>

Particulate matter (“PM”) can be divided into two categories: directly emitted PM and secondary PM.<sup>5</sup> While directly emitted PM can have a localized impact, the tonnage emitted does not always equate to the local PM concentration because it can be transported long distances by wind.<sup>6</sup> Secondary PM, like ozone, is formed via complex chemical reactions in the atmosphere between precursor chemicals such as sulfur dioxides (SOx) and NOx.<sup>7</sup> Because of the complexity of secondary PM formation, the tonnage of PM-forming precursor emissions in an area does not necessarily result in an equivalent concentration of secondary PM in that area.

The disconnect between the *tonnage* of precursor pollutants (NOx, SOx and VOCs) and the *concentration* of ozone or PM formed is important because it is not necessarily the tonnage of precursor pollutants that causes human health effects, but the concentration of resulting ozone or PM. Indeed, the national ambient air quality standards (“NAAQS”), which are statutorily required to be set by the United States Environmental Protection

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<sup>4</sup> *San Joaquin Valley Air Pollution Control District 2007 Ozone Plan*, Executive Summary p. ES-6, available at: [http://www.valleyair.org/Air\\_Quality\\_Plans/docs/AQ\\_Ozone\\_2007\\_Adopted/03%20Executive%20Summary.pdf](http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Ozone_2007_Adopted/03%20Executive%20Summary.pdf) (visited March 10, 2015).

<sup>5</sup> United States Environmental Protection Agency, *Particulate Matter: Basic Information*, available at: <http://www.epa.gov/airquality/particulatepollution/basic.html> (visited March 10, 2015).

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*



Agency (“EPA”) at levels that are “requisite to protect the public health,” 42 U.S.C. § 7409(b)(1), are established as concentrations of ozone or particulate matter and not as tonnages of their precursor pollutants.<sup>8</sup>

Attainment of a particular NAAQS occurs when the concentration of the relevant pollutant remains below a set threshold on a consistent basis throughout a particular region. For example, the San Joaquin Valley attained the 1-hour ozone NAAQS when ozone concentrations remained at or below 0.124 parts per million Valley-wide on 3 or fewer days over a 3-year period.<sup>9</sup> Because the NAAQS are focused on achieving a particular concentration of pollution region-wide, the Air District’s tools and plans for attaining the NAAQS are regional in nature.

For instance, the computer models used to simulate and predict an attainment date for the ozone or particulate matter NAAQS in the San Joaquin Valley are based on regional inputs, such as regional inventories of precursor pollutants (NO<sub>x</sub>, SO<sub>x</sub> and VOCs) and the atmospheric chemistry and meteorology of the Valley.<sup>10</sup> At a very basic level, the models simulate future ozone or PM levels based on predicted changes in precursor

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<sup>8</sup> See, e.g., United States Environmental Protection Agency, *Table of National Ambient Air Quality Standards*, available at: <http://www.epa.gov/air/criteria.html#3> (visited March 10, 2015).

<sup>9</sup> *San Joaquin Valley Unified Air Pollution Control District 2013 Plan for the Revoked 1-Hour Ozone Standard*, Ch. 2 p. 2-16, available at: [http://www.valleyair.org/Air\\_Quality\\_Plans/OzoneOneHourPlan2013/02Chapter2ScienceTrendsModeling.pdf](http://www.valleyair.org/Air_Quality_Plans/OzoneOneHourPlan2013/02Chapter2ScienceTrendsModeling.pdf) (visited March 10, 2015).

<sup>10</sup> *Id.* at Ch. 2 p. 2-19 (visited March 12, 2015); *San Joaquin Valley Unified Air Pollution Control District 2008 PM<sub>2.5</sub> Plan*, Appendix F, pp. F-2 – F-5, available at: [http://www.valleyair.org/Air\\_Quality\\_Plans/docs/AQ\\_Final\\_Adopted\\_PM2.5/20%20Appendix%20F.pdf](http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Final_Adopted_PM2.5/20%20Appendix%20F.pdf) (visited March 19, 2015).



emissions Valley wide.<sup>11</sup> Because the NAAQS are set levels necessary to protect human health, the closer a region is to attaining a particular NAAQS, the lower the human health impact is from that pollutant.

The goal of these modeling exercises is not to determine whether the emissions generated by a particular factory or development project will affect the date that the Valley attains the NAAQS. Rather, the Air District's modeling and planning strategy is regional in nature and based on the extent to which *all* of the emission-generating sources in the Valley (current and future) must be controlled in order to reach attainment.<sup>12</sup>

Accordingly, the Air District has based its thresholds of significance for CEQA purposes on the levels that scientific and factual data demonstrate that the Valley can accommodate without affecting the attainment date for the NAAQS.<sup>13</sup> The Air District has tied its CEQA significance thresholds to the level at which stationary pollution sources permitted by the Air District must "offset" their emissions.<sup>14</sup> This "offset"

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<sup>11</sup> *Id.*

<sup>12</sup> Although the Air District does have a dispersion modeling tool used during its air permitting process that is used to predict whether a particular project's directly emitted PM will either cause an exceedance of the PM NAAQS or contribute to an existing exceedance, this model bases the prediction on a worst case scenario of emissions and meteorology and has no provision for predicting any associated human health impacts. Further, this analysis is only performed for stationary sources (factories, oil refineries, etc.) that are required to obtain a New Source Review permit from the Air District and not for development projects such as Friant Ranch over which the Air District has no preconstruction permitting authority. See San Joaquin Valley Unified Air Pollution Control District Rule 2201 §§ 2.0; 3.3.9; 4.14.1, available at: <http://www.valleyair.org/rules/currentrules/Rule22010411.pdf> (visited March 19, 2015).

<sup>13</sup> *San Joaquin Valley Unified Air Pollution Control District Guide to Assessing and Mitigating Air Quality Impacts*, (March 19, 2015) p. 22, available at: <http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI%20Jan%202002%20Rev.pdf> (visited March 30, 2015).

<sup>14</sup> *Id.* at pp. 22, 25.



level allows for growth while keeping the cumulative effects of all new sources at a level that will not impede attainment of the NAAQS.<sup>15</sup> In the Valley, these thresholds are 15 tons per year of PM, and 10 tons of NOx or VOC per year. *Sierra Club, supra*, 172 Cal.Rptr.3d at 303; AR 4554. Thus, the CEQA air quality analysis for criteria pollutants is not really a localized, project-level impact analysis but one of regional, “cumulative impacts.”

Accordingly, the significance thresholds applied in the Friant Ranch EIR (15 tons per year of PM and 10 tons of NOx or VOCs) are not intended to be indicative of any localized human health impact that the project may have. While the health effects of air pollution are of primary concern to the Air District (indeed, the NAAQS are established to protect human health), the Air District is simply not equipped to analyze whether and to what extent the criteria pollutant emissions of an individual CEQA project directly impact human health in a particular area. This is true even for projects with relatively high levels of emissions of criteria pollutant precursor emissions.

For instance, according to the EIR, the Friant Ranch project is estimated to emit 109.52 tons per year of ROG (VOC), 102.19 tons per year of NOx, and 117.38 tons per year of PM. Although these levels well

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<sup>15</sup> <sup>15</sup> *San Joaquin Valley Unified Air Pollution Control District Environmental Review Guidelines* (Aug. 2000) p. 4-11, available at: [http://www.valleyair.org/transportation/CEQA%20Rules/ERG%20Adopted%20August%202000\\_.pdf](http://www.valleyair.org/transportation/CEQA%20Rules/ERG%20Adopted%20August%202000_.pdf) (visited March 12, 2015).



exceed the Air District's CEQA significance thresholds, this does not mean that one can easily determine the concentration of ozone or PM that will be created at or near the Friant Ranch site on a particular day or month of the year, or what specific health impacts will occur. Meteorology, the presence of sunlight, and other complex chemical factors all combine to determine the ultimate concentration and location of ozone or PM. This is especially true for a project like Friant Ranch where most of the criteria pollutant emissions derive not from a single "point source," but from area wide sources (consumer products, paint, etc.) or mobile sources (cars and trucks) driving to, from and around the site.

In addition, it would be extremely difficult to model the impact on NAAQS attainment that the emissions from the Friant Ranch project may have. As discussed above, the currently available modeling tools are equipped to model the impact of *all* emission sources in the Valley on attainment. According to the most recent EPA-approved emission inventory, the NO<sub>x</sub> inventory for the Valley is for the year 2014 is 458.2 tons per day, or 167,243 tons per year and the VOC (or ROG) inventory is 361.7 tons per day, or 132,020.5 tons per year.<sup>16</sup> Running the photochemical grid model used for predicting ozone attainment with the

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<sup>16</sup> *San Joaquin Valley Unified Air Pollution Control District 2007 Ozone Plan*, Appendix B pp. B-6, B-9, available at: [http://www.valleyair.org/Air\\_Quality\\_Plans/docs/AQ\\_Ozone\\_2007\\_Adopted/19%20Appendix%20B%20April%202007.pdf](http://www.valleyair.org/Air_Quality_Plans/docs/AQ_Ozone_2007_Adopted/19%20Appendix%20B%20April%202007.pdf) (visited March 12, 2015).



emissions solely from the Friant Ranch project (which equate to less than one-tenth of one percent of the total NOx and VOC in the Valley) is not likely to yield valid information given the relative scale involved.

Finally, even once a model is developed to accurately ascertain local increases in concentrations of photochemical pollutants like ozone and some particulates, it remains impossible, using today's models, to correlate that increase in concentration to a specific health impact. The reason is the same: such models are designed to determine regional, population-wide health impacts, and simply are not accurate when applied at the local level.

For these reasons, it is not the norm for CEQA practitioners, including the Air District, to conduct an analysis of the localized health impacts associated with a project's criteria air pollutant emissions as part of the EIR process. When the accepted scientific method precludes a certain type of analysis, "the court cannot impose a legal standard to the contrary." *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 717 n. 8. However, that is exactly what the Court of Appeal has done in this case. Its decision upends the way CEQA air quality analysis of criteria pollutants occurs and should be reversed.

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**B. The Court of Appeal Improperly Extrapolated a Request for a Health Risk Assessment for Toxic Air Contaminants into a Requirement that the EIR contain an Analysis of Localized Health Impacts Associated with Criteria Air Pollutants.**

The Court of Appeal's error in requiring the new health impact analysis for criteria air pollutants clearly stems from a misunderstanding of terms of art commonly used in the air pollution field. More specifically, the Court of Appeal (and Appellants Sierra Club et al.) appear to have confused the health risk analysis ("HRA") performed to determine the health impacts associated with a project's toxic air contaminants ("TACs"), with an analysis correlating a project's criteria air pollutants (ozone, PM and the like) with specific localized health impacts.

The first type of analysis, the HRA, is commonly performed during the Air District's stationary source permitting process for projects that emit TACs and is, thus, incorporated into the CEQA review process. An HRA is a comprehensive analysis to evaluate and predict the dispersion of TACs emitted by a project and the potential for exposure of human populations. It also assesses and quantifies both the individual and population-wide health risks associated with those levels of exposure. There is no similar analysis conducted for criteria air pollutants. Thus, the second type of analysis (required by the Court of Appeal), is not currently part of the Air District's process because, as outlined above, the health risks associated



with exposure to criteria pollutants are evaluated on a regional level based on the region's attainment of the NAAQS.

The root of this confusion between the types of analyses conducted for TACs versus criteria air pollutants appears to stem from a comment that was presented to Fresno County by the City of Fresno during the administrative process.

In its comments on the draft EIR, the City of Fresno (the only party to raise this issue) stated:

[t]he EIR must disclose the human health related effects of the Project's air pollution impacts. (CEQA Guidelines section 15126.2(a).) The EIR fails completely in this area. The EIR should be revised to disclose and determine the significance of TAC impacts, and of human health risks due to exposure to Project-related air emissions.

(AR 4602.)

In determining that the issue regarding the correlation between the Friant Ranch project's criteria air pollutants and adverse health impacts was adequately exhausted at the administrative level, the Court of Appeal improperly read the first two sentences of the City of Fresno's comment in isolation rather than in the context of the entire comment. *See Sierra Club v. County of Fresno* (2014) 172 Cal.Rptr.3d 271, 306. Although the comment first speaks generally in terms of "human health related effects" and "air pollution," it requests only that the EIR be revised to disclose "the significance of TACs" and the "human health risks due to exposure."



The language of this request in the third sentence of the comment is significant because, to an air pollution practitioner, the language would only have indicated only that a HRA for TACs was requested, and not a separate analysis of the health impacts associated with the project's criteria air pollutants. Fresno County clearly read the comment as a request to perform an HRA for TACs and limited its response accordingly. (AR 4602.)<sup>17</sup> The Air District submits that it would have read the City's comment in the same manner as the County because the City's use of the terms "human health risks" and "TACs" signal that an HRA for TACs is being requested. Indeed, the Air District was also concerned that an HRA be conducted, but understood that it was not possible to conduct such an analysis until the project entered the phase where detailed site specific information, such as the types of emission sources and the proximity of the sources to sensitive receptors became available. (AR 4553.)<sup>18</sup> The City of Fresno was apparently satisfied with the County's discussion of human health risks, as it did not raise the issue again when it commented on the final EIR. (AR 8944 – 8960.)

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<sup>17</sup> Appellants do not challenge the manner in which the County addressed TACs in the EIR. (Appellants' Answer Brief p. 28 fn. 7.)

<sup>18</sup> Appellants rely on the testimony of Air District employee, Dan Barber, as support for their position that the County should have conducted an analysis correlating the project's criteria air pollutant emissions with localized health impacts. (Appellants Answer Brief pp. 10-11; 28.) However, Mr. Barber's testimony simply reinforces the Air District's concern that a risk assessment (HRA) be conducted once the actual details of the project become available. (AR 8863.) As to criteria air pollutants, Mr. Barber's comments are aimed at the Air District's concern about the amount of emissions and the fact that the emissions will make it "more difficult for Fresno County and the Valley to reach attainment which means that the health of Valley residents maybe [sic] adversely impacted." Mr. Barber says nothing about conducting a separate analysis of the localized health impacts the project's emissions may have.



The Court of Appeal's holding, which incorrectly extrapolates a request for an HRA for TACs into a new analysis of the localized health impacts of the project's criteria air pollutants, highlights two additional errors in the Court's decision.

First, the Court of Appeal's holding illustrates why the Court should have applied the deferential substantial evidence standard of review to the issue of whether the EIR's air quality analysis was sufficient. The regulation of air pollution is a technical and complex field and the Court of Appeal lacked the expertise to fully appreciate the difference between TACs and criteria air pollutants and tools available for analyzing each type of pollutant.

Second, it illustrates that the Court likely got it wrong when it held that the issue regarding the criteria pollutant / localized health impact analysis was properly exhausted during the administrative process. In order to preserve an issue for the court, '[t]he "exact issue" must have been presented to the administrative agency....' [Citation.] *Citizens for Responsible Equitable Environmental Development v. City of San Diego*, (2011) 196 Cal.App.4th 515, 527 129 Cal.Rptr.3d 512, 521; *Sierra Club v. City of Orange* (2008) 163 Cal.App.4th 523, 535, 78 Cal.Rptr.3d 1, 13. "[T]he objections must be sufficiently specific so that the agency has the



opportunity to evaluate and respond to them.’ [Citation.]” *Sierra Club v. City of Orange*, 163 Cal.App.4<sup>th</sup> at 536.<sup>19</sup>

As discussed above, the City’s comment, while specific enough to request a commonly performed HRA for TACs, provided the County with no notice that it should perform a new type of analysis correlating criteria pollutant tonnages to specific human health effects. Although the parties have not directly addressed the issue of failure to exhaust administrative remedies in their briefs, the Air District submits that the Court should consider how it affects the issues briefed by the parties since “[e]xhaustion of administrative remedies is a jurisdictional prerequisite to maintenance of a CEQA action.” *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4<sup>th</sup> 1184, 1199, 22 Cal.Rptr.3d 203.

### III. CONCLUSION

For all of the foregoing reasons, the Air District respectfully requests that the portion of the Court of Appeal’s decision requiring an analysis correlating the localized human health impacts associated with an individual project’s criteria air pollutant emissions be reversed.

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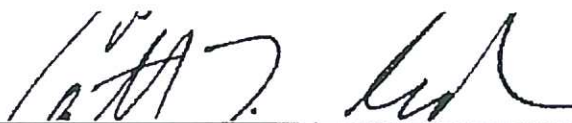
<sup>19</sup> *Sierra Club v. City of Orange*, is illustrative here. In that case, the plaintiffs challenged an EIR approved for a large planned community on the basis that the EIR improperly broke up the various environmental impacts by separate project components or “piecemealed” the analysis in violation of CEQA. In evaluating the defense that the plaintiffs had failed to adequately raise the issue at the administrative level, the Court held that comments such as “the use of a single document for both a project-level and a program-level EIR [is] ‘confusing’,” and “[t]he lead agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project,” were too vague to fairly raise the argument of piecemealing before the agency. *Sierra Club v. City of Orange*, 163 Cal.App.4<sup>th</sup> at 537.



correlating the localized human health impacts associated with an individual project's criteria air pollutant emissions be reversed.

Respectfully submitted,

Dated: April 2, 2015

A handwritten signature in black ink, appearing to read 'C. Redmond', is written over a horizontal line.

Catherine T. Redmond  
Attorney for Proposed Amicus  
Curiae

SAN JOAQUIN VALLEY  
UNIFIED  
AIR POLLUTION CONTROL  
DISTRICT



## CERTIFICATE OF WORD COUNT

Pursuant to Rule 8.204 of the California Rules of Court, I hereby certify that this document, based on the Word County feature of the Microsoft Word software program used to compose and print this document, contains, exclusive of caption, tables, certificate of word count, signature block and certificate of service, 3806 words.

Dated: April 2, 2015

A handwritten signature in black ink, appearing to read "Annette A. Ballatore-Williamson", written over a horizontal line.

Annette A. Ballatore-Williamson  
District Counsel (SBN 192176)



*Sierra Club et al, v. County of Fresno, et al*  
**Supreme Court of California Case No.: S219783**  
Fifth District Court of Appeal Case No.: F066798  
Fresno County Superior Court Case No.: 11CECG00726

**PROOF OF SERVICE**

I am over the age of 18 years and not a party to the above-captioned action; that my business address is San Joaquin Valley Unified Air Pollution Control District located at 1990 E. Gettysburg Avenue, Fresno, California 93726.

On April 2, 2015, I served the document described below:

**APPLICATION FOR LEAVE TO FILE AMICUS CURIAE BRIEF OF  
SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT IN  
SUPPORT OF DEFENDANT AND RESPONDENT, COUNTY OF FRESNO**

On all parties to this action at the following addresses and in the following manner:

**PLEASE SEE ATTACHED SERVICE LIST**

- (XX) **(BY MAIL)** I caused a true copy of each document(s) to be laced in a sealed envelope with first-class postage affixed and placed the envelope for collection. Mail is collected daily at my office and placed in a United State Postal Service collection box for pick-up and delivery that same day.
- ( ) **(BY ELECTRONIC MAIL)** I caused a true and correct scanned image (.PDF file) copy to be transmitted via electronic mail transfer system in place at the San Joaquin Valley Unified Air Pollution Control District ("District"), originating from the undersigned at 1990 E. Gettysburg Avenue, Fresno, CA, to the address(es) indicated below.
- ( ) **(BY OVERNIGHT MAIL)** I caused a true and correct copy to be delivered via Federal Express to the following person(s) or their representative at the address(es) listed below.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that I executed this document on April 2, 2015, at Fresno, California.

  
Esthela Soto



**SERVICE LIST**

***Sierra Club et al, v. County of Fresno, et al***

**Supreme Court of California Case No.: S219783**

**Fifth District Court of Appeal Case No.: F066798**

**Fresno County Superior Court Case No.: 11CECG00726**

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## **APPENDIX A.2**

### **HEALTH RISK ASSESSMENT**





## HEALTH RISK ASSESSMENT

Dunn's Inc.  
7763 Avenue 280  
Visalia, CA 93277

*Prepared for:*

Dunn's Inc.  
303 North Ben Maddox Way  
Visalia, CA 93292

Alta Project: DUNN-19-8904

November 7, 2019



**ALTA**  
ENVIRONMENTAL  
AN **NV5** COMPANY



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## **1.0 BACKGROUND**

### **1.1 Purpose**

Dunn's Inc. proposed to construct and operate a new facility in Visalia, California, which will consist of a concrete batch plant, a hot-mix asphalt (HMA) plant, and a reclaimed asphalt pavement (RAP) plant. The purpose of this report is to quantify emissions of toxic air contaminants (TAC) from the proposed project and to perform a health risk assessment (HRA) based on these emissions in accordance with the California Environmental Quality Act (CEQA) and Office of Environmental Health Hazard Assessment (OEHHA) regulations and guidelines.

### **1.2 Facility Setting**

The proposed Dunn, Inc. facility (Dunn Facility, the Facility) is located at (7763 Avenue 280, Visalia, CA 93277), which is approximately three quarters of a mile west of the Avenue 280 and California State Route 99 (CA-99) junction. The Facility has a total area of approximately 18 acres. The Facility is surrounded by agricultural land in all directions, plus commercial properties are loosely scattered throughout the area. The nearest residence is approximately 750 feet east of the Facility on Avenue 280. The nearest worker receptor is approximately 1,000 feet east of the Facility on Avenue 280. The location and setting of the Facility can be seen in Figure 1 and Figure 2.



## 2.0 EXPOSURE ASSESSMENT

### 2.1 Operation Emissions Estimates

Operation of a concrete and HMA plant results in the generation of emissions. Specific sources of TACs at the proposed Dunn Facility include: the HMA dryer, asphalt oil storage tanks, cement silos, material transfer points, trucks used to transport material to and from the site, and off-road equipment to move material within the site. In certain cases, sources of TACs will be equipment with pollution control devices, such as baghouses and bin vents. The following sources of TACs were included in this risk assessment.

HMA Plant:

- Asphalt Dryer
- Oil Heater
- Oil Storage Tanks
- Silo Filling and Loadout
- RAP Cold Feed

Concrete Batch Plant:

- Cement Silo
- Fly Ash Silo
- Truck Loading

RAP:

- RAP Processing Plant

Other:

- Truck exhaust, including idling
  - Diesel Particulate Matter (DPM)
- Fugitive dust
  - Vehicle traffic
  - Stockpiles
  - Transfer Points

Detailed emission estimates and calculations are provided in Attachment 1.



## 2.2 Construction Emissions Estimates

Construction of the plants will result in the generation of emissions. Construction emissions were estimated using CalEEMod Version 2016.3.2. Based on the site plan, the total area of the site is approximately 18 acres or 800,000 ft<sup>2</sup>. Construction is expected to take approximately one year with no demolition planned. Default assumptions were used for all inputs, except construction phase duration was changed to match the expected project schedule. A summary of the estimated Diesel Exhaust PM<sub>2.5</sub> emissions for each construction phase is presented below. The CalEEMod emissions estimates are provided in Attachment 2. Total emissions from all phases of construction were used for the risk assessment.

	Onsite	Offsite	Total
	(tpy)		
Site Preparation	0.0101	0.00001	0.0101
Grading	0.0300	0.00002	0.0300
Building Construction	0.0914	0.00840	0.0998
Paving	0.0069	0.00001	0.0069
Arch. Coating	0.0011	0.00005	0.0012
Total	0.1395	0.00849	0.1480

## 2.3 Air Dispersion Modeling

Air dispersion modeling was performed to estimate ground level concentrations (GLCs) at and beyond the property boundary of the Facility. USEPA's AERMOD executable version 19191 via the BREEZE AERMOD software. Source release parameters were obtained from equipment specifications, published guidance documents, and facility personnel's knowledge of the expected equipment. Source parameters, such as name, location, release height, etc. are provided in Tables 1, 2 and 3.

Truck and off-road equipment emissions were modeled as a series of volume sources located along the expected path of travel. Emissions for these sources were divided evenly between the series of volume sources. For construction emissions, the lot was modeled as an area source.

### 2.3.1 Meteorological Data

AERMOD-ready meteorological data were obtained from the San Joaquin Valley Air Pollution Control District. Data from the Visalia Municipal Airport (VIS) meteorological station were selected as the Visalia Municipal Airport station is the closest to the Dunn Facility. Data at VIS are available for years 2007 through 2010. There are no intervening terrain features between VIS and the Dunn facility.

### 2.3.2 Terrain Data

Surface elevations for the various modeling objects in the modeling domain were imported from National Elevation Dataset (NED) files developed by the United States Geological Survey (USGS). NED files are available in 1-arc second resolution. A NED file purchased from BREEZE Modeling Software was used in the air dispersion modeling.



### 2.3.3 Model Options

The following options were used in running the AERMOD model based on OEHHA and USEPA modeling guidelines.

- AERMOD was executed using the rural modeling option.
- USEPA regulatory default options were implemented.
- The UTM, WGS 1984 projection was implemented.
- The pollutant was set to "Other"
- Regulatory default concentration only, was used, and no depletion options were selected.

### 2.3.4 Receptors

The Facility has a total area of approximately 18 acres. Twenty-five meter spacing was used for fenceline receptors and off-site receptors up to 100 meters beyond the facility boundaries. Fifty-meter spacing was used for receptors up to 250 meters out, 100-meter spacing up to 500 meters out, 250-meter spacing up to 1000 meters out, and 500-meter spacing up to 2000 meters out. Table 4 lists the location in UTM coordinates for each boundary receptor. Table 5 lists the location of each non-boundary receptor.



### **3.0 RISK CHARACTERIZATION**

Air dispersion modeling results (plot [.plt] files) were imported into CARB's HARP software. HARP2 ADMRT software version 19121 was utilized to perform the dose-response assessment and calculate the potential cancer risk and non-cancer health impacts for the various receptors surrounding the proposed Dunn facility. The dose-response assessment and risk calculations were performed in accordance with OEHHA's Risk Assessment Guidelines (OEHHA, 2015) and San Joaquin Valley Air Pollution Control District's (SJVAPCD's) Guidance for Air Dispersion Modeling (SJVAPCD, 2007).

#### **3.1 Exposure Assessment**

##### **3.1.1 Identification of Potentially Exposed Populations**

The Facility is surrounded by agricultural land in all directions, plus commercial properties are loosely scattered throughout the area. The nearest residence is approximately 750 feet east of the Facility on Avenue 280. The nearest worker receptor is approximately 1,000 feet east of the Facility on Avenue 280. Table 4 and Table 5 list the locations in UTM coordinates for all receptors.

##### **3.1.2 Exposure Pathways**

###### **3.1.2.1 Residents**

The nearest residential receptors to the Dunn Facility are a row of houses located on Avenue 280. The following default residential exposure pathways were included in this HRA:

- Inhalation
- Soil ingestion
- Dermal absorption
- Mother's Milk
- Home Grown Produce

No site- or receptor-specific exposure pathways were identified.

###### **3.1.2.2 Off-Site Workers**

As stated above, the facility is surrounded by agricultural land in all directions, plus commercial properties are loosely scattered throughout the area. The following default worker exposure pathways were included in this HRA:

- Inhalation
- Soil ingestion
- Dermal absorption

##### **3.1.3 HARP Exposure Analysis Methods and Assumptions**

Cancer and non-cancer health impacts may be evaluated in HARP. Cancer risk is expressed as a theoretical probability of an individual person developing cancer as a result of exposure to carcinogenic substances. Noncancer risk is expressed with a hazard index number (HI) for pollutant-targeted organ systems: the cardiovascular system, central nervous system, immune system, kidneys, gastrointestinal tract and liver, reproductive/developmental system, respiratory



system, skin, eyes, skeletal system, endocrine system, hematological system, physiological response to odors, and general toxicity (CARB, 2018). Calculations built into HARP2 ADMRT are based on the dose and risk calculation methodologies and pollutant risk factors contained within the OEHHA Risk Assessment Guidelines.

According to the OEHHA and SJVAPCD guidelines, different exposure scenarios should be used for residential and worker receptors. Exposure scenarios and assumptions for residential and worker receptors are identified in the following sections.

#### 3.1.3.1 Residents

For notification and risk reduction purposes, a 70-year exposure scenario is used for residential receptors for cancer risk analysis, and the default exposure scenario is used for non-cancer risk analysis. A one-year exposure scenario was used for construction cancer risk analysis. The following additional parameters were selected in HARP:

- Receptor Type: Individual Resident
- Intake Rate Percentile: OEHHA Derived Method (when applicable)
- Exposure Frequency: 350 days per year
- Deposition Rate: 0.02 meters per second

#### 3.1.3.2 Off-Site Workers

For notification and risk reduction purposes, a 40-year exposure scenario starting at the age of 18 is used for off-site worker receptors for cancer risk analysis, and the default exposure scenario is used for non-cancer risk analysis. A one-year exposure scenario was used for construction cancer risk analysis. The following additional parameters were selected in HARP:

- Receptor Type: Worker
- Intake Rate Percentile: OEHHA Derived Method (when applicable)
- Exposure Frequency: 250 days per year
- Deposition Rate: 0.02 meters per second

The Facility is operational 14 hours per day, 6 days per week. Therefore, the Worker Adjustment Factor (WAF) is 2.0.

### 3.2 Dose-Response Assessment

According to OEHHA, dose-response assessment describes the quantitative relationship between the amount of exposure to a substance (the dose) and the incidence or occurrence of an adverse health impact (the response). Dose-response information for noncancer health effects is used to determine Reference Exposure Levels (RELs). Dose-response information for cancer risks are based on cancer potency factors (OEHHA, 2015). Chronic RELs, 8-hour Chronic RELs, Acute RELs, and cancer potency factors for each pollutant are listed in the OEHHA Guidelines and built into HARP2. These values are periodically updated, and new versions of HARP2 incorporate the changes.



### 3.3 Risk Characterization Methodology

Risks are characterized using calculations and methodology contained in the OEHHA Guidelines and built into HARP2. Risk is calculated based on dose, dose-response values (RELs or cancer potency factors), and exposure duration and frequency. For this HRA, all risks were calculated using a Tier 1 approach using OEHHA default values.

#### 3.3.1 Carcinogenic Risks

Carcinogenic risks are calculated for each receptor by calculating the dose of each pollutant at that receptor then following the calculation methodology in Section 8 of the OEHHA Guidelines. Multipathway risks are accounted for within HARP2 and follow the methodology in the guidelines.

#### 3.3.2 Chronic Non-cancer Hazards

Chronic hazards are calculated using the period average ground level concentration of each pollutant compared to the chronic REL for each pollutant. The sum of the HIs for each pollutant is the total chronic HI for each receptor.

#### 3.3.3 Acute Non-cancer Hazards

Acute non-cancer hazards are identical for residential and non-residential (worker) receptors. Therefore, only one set of methodology was utilized for acute non-cancer hazard index calculation. Acute hazards are calculated using the maximum 1-hour ground level concentration of each pollutant compared to the acute REL for each pollutant. The sum of the HIs for each pollutant is the total acute HI.

### 3.4 Risk Characterization Results

Risk results are presented at three locations: The Point of Maximum Impact (PMI), the Maximum Exposed Individual Resident (MEIR), and the Maximum Exposed Individual Worker (MEIW). The PMI is located on the property boundary, and no receptors are expected to reside there for significant periods of time. Therefore, CEQA significance thresholds of 20 in one million for cancer and 1 for non-cancer HI are assessed at the MEIR and MEIW. The locations of the PMI, MEIR, and MEIW are provided in the following table and shown in Figure 3.

Receptor	Receptor ID	UTM X (m)	UTM Y (m)
PMI	759	284,731.4	4,019,450.1
MEIR	730	284,928.3	4,019,640.9
MEIW	471	285,001.6	4,019,627.6



### 3.4.1 Cancer Risks

The following table summarizes the potential construction cancer risks at the PMI, MEIR, and MEIW.

Receptor	UTM X (m)	UTM Y (m)	Cancer Risk
PMI	284,731.4	4,019,450.1	1.0 in one million <sup>1</sup>
MEIR	284,928.3	4,019,640.9	5.0 in one million
MEIW	285,001.6	4,019,627.6	0.06 in one million

1. The cancer risk at the PMI presented above assumes the worker receptor exposure scenario because the PMI is located on the facility fenceline where residential receptors do not exist.

The following table summarizes the potential operation cancer risks at the PMI, MEIR, and MEIW.

Receptor	UTM X (m)	UTM Y (m)	Cancer Risk
PMI	284,731.4	4,019,450.1	3.7 in one million <sup>2</sup>
MEIR	284,928.3	4,019,640.9	8.7 in one million
MEIW	285,001.6	4,019,627.6	0.6 in one million

2. The cancer risk at the PMI presented above assumes the worker receptor exposure scenario because the PMI is located on the facility fenceline where residential receptors do not exist.

The following table summarizes the total potential (construction + operation) cancer risks at the PMI, MEIR, and MEIW.

Receptor	UTM X (m)	UTM Y (m)	Cancer Risk
PMI	284,731.4	4,019,450.1	9.4 in one million <sup>3</sup>
MEIR	284,928.3	4,019,640.9	13.7 in one million
MEIW	285,001.6	4,019,627.6	1.3 in one million <sup>3</sup>

3. Total cancer risks at the PMI and MEIW include the WAF of 2.0.

Diesel particulate matter (DPM) is the primary cancer risk driver.

### 3.4.2 Non-Cancer Chronic Health Index

The following table summarizes the potential construction non-cancer chronic HI at the PMI, MEIR, and MEIW.

Receptor	UTM X (m)	UTM Y (m)	Non-Cancer Chronic HI	Target Organ
PMI	284,731.4	4,019,450.1	7.6E-02 <sup>1</sup>	RESP
MEIR	284,928.3	4,019,640.9	5.6E-03	RESP
MEIW	285,001.6	4,019,627.6	4.3E-03	RESP

1. The cancer risk at the PMI presented above assumes the worker receptor exposure scenario because the PMI is located on the facility fenceline where residential receptors do not exist.

Arsenic is the primary non-cancer chronic HI driver. The primary target organ for the non-cancer chronic HI is the respiratory system.

The following table summarizes the potential operation non-cancer chronic HI at the PMI, MEIR, and MEIW.



Receptor	UTM X (m)	UTM Y (m)	Non-Cancer Chronic HI	Target Organ
PMI	284,731.4	4,019,450.1	0.2 <sup>2</sup>	RESP
MEIR	284,928.3	4,019,640.9	0.06	RESP
MEIW	285,001.6	4,019,627.6	0.02	RESP

2. The cancer risk at the PMI presented above assumes the worker receptor exposure scenario because the PMI is located on the facility fenceline where residential receptors do not exist.

Arsenic is the primary non-cancer chronic HI driver. The primary target organ for the non-cancer chronic HI is the respiratory system.

### 3.4.3 Non-Cancer Acute Health Index

The following table summarizes the potential construction non-cancer acute HI at the PMI, MEIR, and MEIW.

Receptor	UTM X (m)	UTM Y (m)	Non-Cancer Acute HI	Target Organ
PMI	284,731.4	4,019,450.1	0	N/A
MEIR	284,928.3	4,019,640.9	0	N/A
MEIW	285,001.6	4,019,627.6	0	N/A

The following table summarizes the potential operation non-cancer acute HI at the PMI, MEIR, and MEIW.

Receptor	UTM X (m)	UTM Y (m)	Non-Cancer Acute HI	Target Organ
PMI	284,731.4	4,019,450.1	0.3	IMMUN
MEIR	284,928.3	4,019,640.9	0.07	IMMUN
MEIW	285,001.6	4,019,627.6	0.07	IMMUN

Nickel is the primary non-cancer acute HI driver. The primary target organ system is the immune system.



## **4.0 CONCLUSIONS**

The total cancer risk is 13.6 in one million which is below the significance threshold of 20 in one million, the total non-cancer chronic HI is below 1, and the total non-cancer acute is below 1 at both the MEIR and MEIW. Therefore, the potential risks from TACs are below SJVAPCD CEQA significance thresholds.



## 5.0 SIGNATORY

For and on behalf of Alta Environmental:



Chris Waller, CPP  
Director of EHS & Air



Diana Nguyen  
Associate Consultant, EHS & Air



## 6.0 REFERENCES

1. California Air Resources Board (CARB), 2018. Hotspots Analysis and Reporting Program (HARP).” June 11. Available online at: <https://www.arb.ca.gov/toxics/harp/harp.htm>.
2. Office of Environmental Health Hazard Assessment (OEHHA), 2015. “Air Toxics Hot Spots Program. Risk Assessment Guidelines. Guidance Manual for Preparation of Risk Assessments.” February. Available online at: <https://oehha.ca.gov/air/cmr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>
3. San Joaquin Valley Air Pollution Control District (SJVAPCD), 2007. “Guidance for Air Dispersion Modeling.” Available online at: [https://www.valleyair.org/busind/pto/Tox\\_Resources/Modeling%20Guidance.pdf](https://www.valleyair.org/busind/pto/Tox_Resources/Modeling%20Guidance.pdf).



## Tables



**Table 1: Point Source Parameters**

Source ID	Source Name	UTM X	UTM Y	Elevation	Stack Height	Stack Temp	Stack Velocity	Stack Diameter
		(m)	(m)	(ft)	(ft)	(F°)	(ft/min)	(ft)
303	OILHEAT	284653.9	4019491.8	288.7467	20	300	0.1524	3
302	BAGSTK2	284666	4019510.1	288.878	30	225	10.75944	5.33
203	BAGSTK1	284550.6	4019519.4	288.4186	20	80.00006	18.50136	1.43
307	TRKIDL2	284676.5	4019499.5	288.878	12.6	199.13	50	0.328
201	BINVENT1	284539.7	4019514.2	288.3858	52	80.00006	2.7686	0.33
202	BINVENT2	284539.8	4019506	288.353	52	80.00006	2.7686	0.33
204	TRKIDL1	284554.5	4019506.9	288.4186	12.6	199.13	50	0.328
402	TRKIDL3	284529	4019465.3	288.189	12.6	199.13	50	0.328



**Table 2: Volume Source Parameters**

Source ID	Source Name	UTM X	UTM Y	Elevation	Release Height	Init. Lat. Dim.	Init. Vert. Dim.
		(m)	(m)	(ft)	(ft)	(m)	(m)
301	COLDFEED	284651	4019501.8	288.7467	2.7432	10.63142	2.83464
306	TRKLDOUT	284681	4019502.3	288.9108	3.048	1.41732	4.25196
304	OILTANKS	284660.9	4019491.9	288.7795	3.148584	3.401568	1.46304
205	AGGPILE1	284638	4019420	288.5171	9.144	43.09872	4.572
308	AGGPILE2	284688.9	4019420	288.7467	9.144	43.09872	4.572
403	RECPILE	284529.8	4019420	288.0577	9.144	43.09872	4.572
401	RAP	284529.5	4019453.2	288.1562	4.572	15.3232	4.572
1	OFF01	284487	4019674.4	288.3202	1.799996	12.09303	1.674419
2	OFF02	284512	4019674.8	288.4843	1.799996	12.09303	1.674419
3	OFF03	284537	4019675.2	288.6155	1.799996	12.09303	1.674419
4	OFF04	284562	4019675.6	288.7139	1.799996	12.09303	1.674419
5	OFF05	284587.0	4019676.0	288.8452	1.799996	12.09303	1.674419
6	OFF06	284612.0	4019676.4	288.9764	1.799996	12.09303	1.674419
7	OFF07	284637.0	4019676.8	289.0748	1.799996	12.09303	1.674419
8	OFF08	284662.0	4019677.2	289.1732	1.799996	12.09303	1.674419
9	OFF09	284687.0	4019677.6	289.2717	1.799996	12.09303	1.674419
10	OFF10	284712.0	4019678.0	289.3701	1.799996	12.09303	1.674419
11	OFF11	284737.0	4019678.4	289.4685	1.799996	12.09303	1.674419
12	OFF12	284762.0	4019678.8	289.5669	1.799996	12.09303	1.674419
13	OFF13	284787.0	4019679.2	289.6982	1.799996	12.09303	1.674419
14	OFF14	284812.0	4019679.6	289.8294	1.799996	12.09303	1.674419
15	OFF15	284837.0	4019680.0	289.9934	1.799996	12.09303	1.674419
16	OFF16	284862.0	4019680.4	290.0919	1.799996	12.09303	1.674419
17	OFF17	284886.9	4019680.8	290.2231	1.799996	12.09303	1.674419
18	OFF18	284911.9	4019681.2	290.3871	1.799996	12.09303	1.674419
19	OFF19	284936.9	4019681.6	290.5184	1.799996	12.09303	1.674419
20	OFF20	284961.9	4019682.0	290.6496	1.799996	12.09303	1.674419
21	OFF21	284986.9	4019682.4	290.8137	1.799996	12.09303	1.674419
22	OFF22	285011.9	4019682.8	290.9449	1.799996	12.09303	1.674419



Source ID	Source Name	UTM X	UTM Y	Elevation	Release Height	Init. Lat. Dim.	Init. Vert. Dim.
		(m)	(m)	(ft)	(ft)	(m)	(m)
23	OFF23	285036.9	4019683.3	291.0761	1.799996	12.09303	1.674419
24	OFF24	285061.9	4019683.7	291.2401	1.799996	12.09303	1.674419
25	OFF25	285086.9	4019684.1	291.3714	1.799996	12.09303	1.674419
26	OFF26	285111.9	4019684.5	291.4698	1.799996	12.09303	1.674419
27	OFF27	285136.9	4019684.9	291.6339	1.799996	12.09303	1.674419
28	OFF28	285161.9	4019685.3	291.7651	1.799996	12.09303	1.674419
29	OFF29	285186.9	4019685.7	291.8963	1.799996	12.09303	1.674419
30	OFF30	285211.9	4019686.1	292.0604	1.799996	12.09303	1.674419
31	OFF31	285236.9	4019686.5	292.1916	1.799996	12.09303	1.674419
32	OFF32	285261.9	4019686.9	292.3228	1.799996	12.09303	1.674419
33	OFF33	285286.9	4019687.3	292.4541	1.799996	12.09303	1.674419
34	OFF34	285311.9	4019687.7	292.5853	1.799996	12.09303	1.674419
35	OFF35	285336.9	4019688.1	292.7493	1.799996	12.09303	1.674419
36	OFF36	285361.9	4019688.5	292.8478	1.799996	12.09303	1.674419
37	OFF37	285386.9	4019688.9	292.9462	1.799996	12.09303	1.674419
38	OFF38	285411.9	4019689.3	293.0446	1.799996	12.09303	1.674419
39	OFF39	285436.9	4019689.7	293.1758	1.799996	12.09303	1.674419
40	OFF40	285461.9	4019690.1	293.2415	1.799996	12.09303	1.674419
41	OFF41	285486.9	4019690.5	293.3727	1.799996	12.09303	1.674419
42	OFF42	285511.9	4019690.9	293.4711	1.799996	12.09303	1.674419
43	OFF43	285536.8	4019691.6	293.6024	1.799996	12.09303	1.674419
44	OFF44	285561.8	4019693.5	293.668	1.799996	12.09303	1.674419
45	OFF45	285586.7	4019695.4	293.7992	1.799996	12.09303	1.674419
46	OFF46	285611.6	4019697.2	293.8648	1.799996	12.09303	1.674419
47	OFF47	285636.6	4019699.1	293.9633	1.799996	12.09303	1.674419
48	OFF48	285661.5	4019700.9	294.0289	1.799996	12.09303	1.674419
49	OFF49	285686.4	4019702.8	294.1273	1.799996	12.09303	1.674419
50	OFF50	285711.4	4019704.7	294.2585	1.799996	12.09303	1.674419
51	OFF51	285736.3	4019705.8	294.357	1.799996	12.09303	1.674419
52	OFF52	285761.3	4019706.1	294.4882	1.799996	12.09303	1.674419
53	OFF53	285786.3	4019706.5	294.6194	1.799996	12.09303	1.674419



Source ID	Source Name	UTM X	UTM Y	Elevation	Release Height	Init. Lat. Dim.	Init. Vert. Dim.
		(m)	(m)	(ft)	(ft)	(m)	(m)
101	ALLTR01	284490.6	4019652.1	288.3858	1.799996	12.09303	1.674419
102	ALLTR02	284495.5	4019627.6	288.353	1.799996	12.09303	1.674419
103	ALLTR03	284500.5	4019603.1	288.3858	1.799996	12.09303	1.674419
104	ALLTR04	284504	4019578.4	288.3858	1.799996	12.09303	1.674419
105	ALLTR05	284504	4019553.4	288.3202	1.799996	12.09303	1.674419
126	RTR01	284499.2	4019529.3	288.2874	1.799996	12.09303	1.674419
127	RTR02	284490.3	4019505.9	288.2218	1.799996	12.09303	1.674419
128	RTR03	284481.5	4019482.6	288.0905	1.799996	12.09303	1.674419
129	RTR04	284482.1	4019465.7	288.0577	1.799996	12.09303	1.674419
130	RTR05	284507.1	4019465.7	288.1234	1.799996	12.09303	1.674419
131	RTR06	284532.1	4019465.7	288.2218	1.799996	12.09303	1.674419
132	RTR07	284557.1	4019465.7	288.3202	1.799996	12.09303	1.674419
133	RTR08	284582.1	4019465.7	288.4186	1.799996	12.09303	1.674419
136	ARTR01	284600.2	4019472.6	288.4843	1.799996	12.09303	1.674419
106	ALLTR06	284600.3	4019497.6	288.5827	1.799996	12.09303	1.674419
107	ALLTR07	284600.4	4019522.6	288.6483	1.799996	12.09303	1.674419
108	ALLTR08	284600.5	4019547.6	288.7139	1.799996	12.09303	1.674419
109	ALLTR09	284600.5	4019572.6	288.7467	1.799996	12.09303	1.674419
110	ALLTR10	284599.3	4019596.3	288.8123	1.799996	12.09303	1.674419
111	ALLTR11	284574.3	4019596.3	288.7139	1.799996	12.09303	1.674419
112	ALLTR12	284549.3	4019596.3	288.6155	1.799996	12.09303	1.674419
113	ALLTR13	284524.3	4019596.3	288.4843	1.799996	12.09303	1.674419
134	ACTR01	284523.4	4019541.7	288.3858	1.799996	12.09303	1.674419
135	ACTR02	284548.4	4019542	288.5171	1.799996	12.09303	1.674419
114	CTR01	284554.3	4019523	288.4514	1.799996	12.09303	1.674419
115	CTR02	284554.3	4019498	288.3858	1.799996	12.09303	1.674419
116	CTR03	284577.5	4019496.2	288.4843	1.799996	12.09303	1.674419
118	ATR02	284623.1	4019523.1	288.7139	1.799996	12.09303	1.674419
119	ATR03	284648.1	4019523.3	288.8123	1.799996	12.09303	1.674419
120	ATR04	284673.1	4019523.5	288.9436	1.799996	12.09303	1.674419
121	ATR05	284676.5	4019501.9	288.878	1.799996	12.09303	1.674419



Source ID	Source Name	UTM X	UTM Y	Elevation	Release Height	Init. Lat. Dim.	Init. Vert. Dim.
		(m)	(m)	(ft)	(ft)	(m)	(m)
122	ATR06	284676.5	4019476.9	288.8123	1.799996	12.09303	1.674419
123	ATR07	284662.7	4019465.8	288.7467	1.799996	12.09303	1.674419
124	ATR08	284637.7	4019465.9	288.6155	1.799996	12.09303	1.674419
125	ATR09	284612.7	4019466.1	288.5171	1.799996	12.09303	1.674419
117	ATR01	284572.9	4019541.7	288.5827	1.799996	12.09303	1.674419
305	SILOFILL	284676.5	4019502.3	288.878	9.144	1.06952	9.144



**Table 3: Area Source Parameters**

Source ID	Source Name	UTM X	UTM Y	Elevation	Release Height	X Length	Y Length	Angle	Init. Vert. Dim.
		(m)	(m)	(ft)	(m)	(ft)	(ft)	degree	(m)
54	AREA	284476.4	4019658.7	288.2874	1	914.3701	798.8845	89.3	1



**Table 4: Boundary Receptor Coordinates**

Receptor ID	X	Y
731	284469.7	4019674.8
732	284469.2	4019649.8
733	284468.8	4019624.8
734	284468.3	4019599.8
735	284467.8	4019574.8
736	284467.3	4019549.8
737	284466.8	4019524.8
738	284466.3	4019499.8
739	284465.8	4019474.8
740	284465.3	4019449.8
741	284464.9	4019424.8
742	284464.4	4019399.9
743	284463.9	4019374.9
744	284463.8	4019372.6
745	284486.6	4019372.3
746	284511.5	4019371.9
747	284536.5	4019371.6
748	284561.5	4019371.3
749	284586.5	4019370.9
750	284611.5	4019370.6
751	284636.5	4019370.3
752	284661.5	4019369.9
753	284686.5	4019369.6
754	284711.5	4019369.3
755	284730.4	4019369
756	284730.5	4019375.1
757	284730.8	4019400.1
758	284731.1	4019425.1
759	284731.4	4019450.1
760	284731.6	4019475.1
761	284731.9	4019500.1
762	284732.2	4019525.1
763	284732.5	4019550.1
764	284732.8	4019575.1
765	284733.1	4019600.1
766	284733.4	4019625.1
767	284733.6	4019650.1
768	284733.9	4019670.5

769	284729.3	4019670.6
770	284704.3	4019671
771	284679.3	4019671.4
772	284654.3	4019671.8
773	284629.3	4019672.2
774	284604.3	4019672.6
775	284579.4	4019673
776	284554.4	4019673.4
777	284529.4	4019673.8
778	284504.4	4019674.2
779	284479.4	4019674.6



**Table 5: Gridded Receptor Coordinates**

Receptor ID	X	Y
1	284351.6	4019277.6
2	284351.6	4019302.6
3	284351.6	4019327.6
4	284351.6	4019352.6
5	284351.6	4019377.6
6	284351.6	4019402.6
7	284351.6	4019427.6
8	284351.6	4019452.6
9	284351.6	4019477.6
10	284351.6	4019502.6
11	284351.6	4019527.6
12	284351.6	4019552.6
13	284351.6	4019577.6
14	284351.6	4019602.6
15	284351.6	4019627.6
16	284351.6	4019652.6
17	284351.6	4019677.6
18	284351.6	4019702.6
19	284351.6	4019727.6
20	284351.6	4019752.6
21	284351.6	4019777.6
22	284376.6	4019277.6
23	284376.6	4019302.6
24	284376.6	4019327.6
25	284376.6	4019352.6
26	284376.6	4019377.6
27	284376.6	4019402.6
28	284376.6	4019427.6
29	284376.6	4019452.6
30	284376.6	4019477.6
31	284376.6	4019502.6
32	284376.6	4019527.6
33	284376.6	4019552.6
34	284376.6	4019577.6
35	284376.6	4019602.6
36	284376.6	4019627.6
37	284376.6	4019652.6
38	284376.6	4019677.6

39	284376.6	4019702.6
40	284376.6	4019727.6
41	284376.6	4019752.6
42	284376.6	4019777.6
43	284401.6	4019277.6
44	284401.6	4019302.6
45	284401.6	4019327.6
46	284401.6	4019352.6
47	284401.6	4019377.6
48	284401.6	4019402.6
49	284401.6	4019427.6
50	284401.6	4019452.6
51	284401.6	4019477.6
52	284401.6	4019502.6
53	284401.6	4019527.6
54	284401.6	4019552.6
55	284401.6	4019577.6
56	284401.6	4019602.6
57	284401.6	4019627.6
58	284401.6	4019652.6
59	284401.6	4019677.6
60	284401.6	4019702.6
61	284401.6	4019727.6
62	284401.6	4019752.6
63	284401.6	4019777.6
64	284426.6	4019277.6
65	284426.6	4019302.6
66	284426.6	4019327.6
67	284426.6	4019352.6
68	284426.6	4019377.6
69	284426.6	4019402.6
70	284426.6	4019427.6
71	284426.6	4019452.6
72	284426.6	4019477.6
73	284426.6	4019502.6
74	284426.6	4019527.6
75	284426.6	4019552.6
76	284426.6	4019577.6
77	284426.6	4019602.6
78	284426.6	4019627.6



79	284426.6	4019652.6
80	284426.6	4019677.6
81	284426.6	4019702.6
82	284426.6	4019727.6
83	284426.6	4019752.6
84	284426.6	4019777.6
85	284451.6	4019277.6
86	284451.6	4019302.6
87	284451.6	4019327.6
88	284451.6	4019352.6
89	284451.6	4019377.6
90	284451.6	4019402.6
91	284451.6	4019427.6
92	284451.6	4019452.6
93	284451.6	4019477.6
94	284451.6	4019502.6
95	284451.6	4019527.6
96	284451.6	4019552.6
97	284451.6	4019577.6
98	284451.6	4019602.6
99	284451.6	4019627.6
100	284451.6	4019652.6
101	284451.6	4019677.6
102	284451.6	4019702.6
103	284451.6	4019727.6
104	284451.6	4019752.6
105	284451.6	4019777.6
106	284476.6	4019277.6
107	284476.6	4019302.6
108	284476.6	4019327.6
109	284476.6	4019352.6
110	284476.6	4019677.6
111	284476.6	4019702.6
112	284476.6	4019727.6
113	284476.6	4019752.6
114	284476.6	4019777.6
115	284501.6	4019277.6
116	284501.6	4019302.6
117	284501.6	4019327.6
118	284501.6	4019352.6
119	284501.6	4019677.6

120	284501.6	4019702.6
121	284501.6	4019727.6
122	284501.6	4019752.6
123	284501.6	4019777.6
124	284526.6	4019277.6
125	284526.6	4019302.6
126	284526.6	4019327.6
127	284526.6	4019352.6
128	284526.6	4019677.6
129	284526.6	4019702.6
130	284526.6	4019727.6
131	284526.6	4019752.6
132	284526.6	4019777.6
133	284551.6	4019277.6
134	284551.6	4019302.6
135	284551.6	4019327.6
136	284551.6	4019352.6
137	284551.6	4019677.6
138	284551.6	4019702.6
139	284551.6	4019727.6
140	284551.6	4019752.6
141	284551.6	4019777.6
142	284576.6	4019277.6
143	284576.6	4019302.6
144	284576.6	4019327.6
145	284576.6	4019352.6
146	284576.6	4019677.6
147	284576.6	4019702.6
148	284576.6	4019727.6
149	284576.6	4019752.6
150	284576.6	4019777.6
151	284601.6	4019277.6
152	284601.6	4019302.6
153	284601.6	4019327.6
154	284601.6	4019352.6
155	284601.6	4019677.6
156	284601.6	4019702.6
157	284601.6	4019727.6
158	284601.6	4019752.6
159	284601.6	4019777.6
160	284626.6	4019277.6



161	284626.6	4019302.6
162	284626.6	4019327.6
163	284626.6	4019352.6
164	284626.6	4019677.6
165	284626.6	4019702.6
166	284626.6	4019727.6
167	284626.6	4019752.6
168	284626.6	4019777.6
169	284651.6	4019277.6
170	284651.6	4019302.6
171	284651.6	4019327.6
172	284651.6	4019352.6
173	284651.6	4019677.6
174	284651.6	4019702.6
175	284651.6	4019727.6
176	284651.6	4019752.6
177	284651.6	4019777.6
178	284676.6	4019277.6
179	284676.6	4019302.6
180	284676.6	4019327.6
181	284676.6	4019352.6
182	284676.6	4019677.6
183	284676.6	4019702.6
184	284676.6	4019727.6
185	284676.6	4019752.6
186	284676.6	4019777.6
187	284701.6	4019277.6
188	284701.6	4019302.6
189	284701.6	4019327.6
190	284701.6	4019352.6
191	284701.6	4019677.6
192	284701.6	4019702.6
193	284701.6	4019727.6
194	284701.6	4019752.6
195	284701.6	4019777.6
196	284726.6	4019277.6
197	284726.6	4019302.6
198	284726.6	4019327.6
199	284726.6	4019352.6
200	284726.6	4019677.6
201	284726.6	4019702.6

202	284726.6	4019727.6
203	284726.6	4019752.6
204	284726.6	4019777.6
205	284751.6	4019277.6
206	284751.6	4019302.6
207	284751.6	4019327.6
208	284751.6	4019352.6
209	284751.6	4019377.6
210	284751.6	4019402.6
211	284751.6	4019427.6
212	284751.6	4019452.6
213	284751.6	4019477.6
214	284751.6	4019502.6
215	284751.6	4019527.6
216	284751.6	4019552.6
217	284751.6	4019577.6
218	284751.6	4019602.6
219	284751.6	4019627.6
220	284751.6	4019652.6
221	284751.6	4019677.6
222	284751.6	4019702.6
223	284751.6	4019727.6
224	284751.6	4019752.6
225	284751.6	4019777.6
226	284776.6	4019277.6
227	284776.6	4019302.6
228	284776.6	4019327.6
229	284776.6	4019352.6
230	284776.6	4019377.6
231	284776.6	4019402.6
232	284776.6	4019427.6
233	284776.6	4019452.6
234	284776.6	4019477.6
235	284776.6	4019502.6
236	284776.6	4019527.6
237	284776.6	4019552.6
238	284776.6	4019577.6
239	284776.6	4019602.6
240	284776.6	4019627.6
241	284776.6	4019652.6
242	284776.6	4019677.6



243	284776.6	4019702.6
244	284776.6	4019727.6
245	284776.6	4019752.6
246	284776.6	4019777.6
247	284801.6	4019277.6
248	284801.6	4019302.6
249	284801.6	4019327.6
250	284801.6	4019352.6
251	284801.6	4019377.6
252	284801.6	4019402.6
253	284801.6	4019427.6
254	284801.6	4019452.6
255	284801.6	4019477.6
256	284801.6	4019502.6
257	284801.6	4019527.6
258	284801.6	4019552.6
259	284801.6	4019577.6
260	284801.6	4019602.6
261	284801.6	4019627.6
262	284801.6	4019652.6
263	284801.6	4019677.6
264	284801.6	4019702.6
265	284801.6	4019727.6
266	284801.6	4019752.6
267	284801.6	4019777.6
268	284826.6	4019277.6
269	284826.6	4019302.6
270	284826.6	4019327.6
271	284826.6	4019352.6
272	284826.6	4019377.6
273	284826.6	4019402.6
274	284826.6	4019427.6
275	284826.6	4019452.6
276	284826.6	4019477.6
277	284826.6	4019502.6
278	284826.6	4019527.6
279	284826.6	4019552.6
280	284826.6	4019577.6
281	284826.6	4019602.6
282	284826.6	4019627.6
283	284826.6	4019652.6

284	284826.6	4019677.6
285	284826.6	4019702.6
286	284826.6	4019727.6
287	284826.6	4019752.6
288	284826.6	4019777.6
289	284851.6	4019277.6
290	284851.6	4019302.6
291	284851.6	4019327.6
292	284851.6	4019352.6
293	284851.6	4019377.6
294	284851.6	4019402.6
295	284851.6	4019427.6
296	284851.6	4019452.6
297	284851.6	4019477.6
298	284851.6	4019502.6
299	284851.6	4019527.6
300	284851.6	4019552.6
301	284851.6	4019577.6
302	284851.6	4019602.6
303	284851.6	4019627.6
304	284851.6	4019652.6
305	284851.6	4019677.6
306	284851.6	4019702.6
307	284851.6	4019727.6
308	284851.6	4019752.6
309	284851.6	4019777.6
310	284201.6	4019127.6
311	284201.6	4019177.6
312	284201.6	4019227.6
313	284201.6	4019277.6
314	284201.6	4019327.6
315	284201.6	4019377.6
316	284201.6	4019427.6
317	284201.6	4019477.6
318	284201.6	4019527.6
319	284201.6	4019577.6
320	284201.6	4019627.6
321	284201.6	4019677.6
322	284201.6	4019727.6
323	284201.6	4019777.6
324	284201.6	4019827.6



325	284201.6	4019877.6
326	284201.6	4019927.6
327	284251.6	4019127.6
328	284251.6	4019177.6
329	284251.6	4019227.6
330	284251.6	4019277.6
331	284251.6	4019327.6
332	284251.6	4019377.6
333	284251.6	4019427.6
334	284251.6	4019477.6
335	284251.6	4019527.6
336	284251.6	4019577.6
337	284251.6	4019627.6
338	284251.6	4019677.6
339	284251.6	4019727.6
340	284251.6	4019777.6
341	284251.6	4019827.6
342	284251.6	4019877.6
343	284251.6	4019927.6
344	284301.6	4019127.6
345	284301.6	4019177.6
346	284301.6	4019227.6
347	284301.6	4019277.6
348	284301.6	4019327.6
349	284301.6	4019377.6
350	284301.6	4019427.6
351	284301.6	4019477.6
352	284301.6	4019527.6
353	284301.6	4019577.6
354	284301.6	4019627.6
355	284301.6	4019677.6
356	284301.6	4019727.6
357	284301.6	4019777.6
358	284301.6	4019827.6
359	284301.6	4019877.6
360	284301.6	4019927.6
361	284351.6	4019127.6
362	284351.6	4019177.6
363	284351.6	4019227.6
364	284351.6	4019827.6
365	284351.6	4019877.6

366	284351.6	4019927.6
367	284401.6	4019127.6
368	284401.6	4019177.6
369	284401.6	4019227.6
370	284401.6	4019827.6
371	284401.6	4019877.6
372	284401.6	4019927.6
373	284451.6	4019127.6
374	284451.6	4019177.6
375	284451.6	4019227.6
376	284451.6	4019827.6
377	284451.6	4019877.6
378	284451.6	4019927.6
379	284501.6	4019127.6
380	284501.6	4019177.6
381	284501.6	4019227.6
382	284501.6	4019827.6
383	284501.6	4019877.6
384	284501.6	4019927.6
385	284551.6	4019127.6
386	284551.6	4019177.6
387	284551.6	4019227.6
388	284551.6	4019827.6
389	284551.6	4019877.6
390	284551.6	4019927.6
391	284601.6	4019127.6
392	284601.6	4019177.6
393	284601.6	4019227.6
394	284601.6	4019827.6
395	284601.6	4019877.6
396	284601.6	4019927.6
397	284651.6	4019127.6
398	284651.6	4019177.6
399	284651.6	4019227.6
400	284651.6	4019827.6
401	284651.6	4019877.6
402	284651.6	4019927.6
403	284701.6	4019127.6
404	284701.6	4019177.6
405	284701.6	4019227.6
406	284701.6	4019827.6



407	284701.6	4019877.6
408	284701.6	4019927.6
409	284751.6	4019127.6
410	284751.6	4019177.6
411	284751.6	4019227.6
412	284751.6	4019827.6
413	284751.6	4019877.6
414	284751.6	4019927.6
415	284801.6	4019127.6
416	284801.6	4019177.6
417	284801.6	4019227.6
418	284801.6	4019827.6
419	284801.6	4019877.6
420	284801.6	4019927.6
421	284851.6	4019127.6
422	284851.6	4019177.6
423	284851.6	4019227.6
424	284851.6	4019827.6
425	284851.6	4019877.6
426	284851.6	4019927.6
427	284901.6	4019127.6
428	284901.6	4019177.6
429	284901.6	4019227.6
430	284901.6	4019277.6
431	284901.6	4019327.6
432	284901.6	4019377.6
433	284901.6	4019427.6
434	284901.6	4019477.6
435	284901.6	4019527.6
436	284901.6	4019577.6
437	284901.6	4019627.6
438	284901.6	4019677.6
439	284901.6	4019727.6
440	284901.6	4019777.6
441	284901.6	4019827.6
442	284901.6	4019877.6
443	284901.6	4019927.6
444	284951.6	4019127.6
445	284951.6	4019177.6
446	284951.6	4019227.6
447	284951.6	4019277.6

448	284951.6	4019327.6
449	284951.6	4019377.6
450	284951.6	4019427.6
451	284951.6	4019477.6
452	284951.6	4019527.6
453	284951.6	4019577.6
454	284951.6	4019627.6
455	284951.6	4019677.6
456	284951.6	4019727.6
457	284951.6	4019777.6
458	284951.6	4019827.6
459	284951.6	4019877.6
460	284951.6	4019927.6
461	285001.6	4019127.6
462	285001.6	4019177.6
463	285001.6	4019227.6
464	285001.6	4019277.6
465	285001.6	4019327.6
466	285001.6	4019377.6
467	285001.6	4019427.6
468	285001.6	4019477.6
469	285001.6	4019527.6
470	285001.6	4019577.6
471	285001.6	4019627.6
472	285001.6	4019677.6
473	285001.6	4019727.6
474	285001.6	4019777.6
475	285001.6	4019827.6
476	285001.6	4019877.6
477	285001.6	4019927.6
478	283951.6	4018877.6
479	283951.6	4018977.6
480	283951.6	4019077.6
481	283951.6	4019177.6
482	283951.6	4019277.6
483	283951.6	4019377.6
484	283951.6	4019477.6
485	283951.6	4019577.6
486	283951.6	4019677.6
487	283951.6	4019777.6
488	283951.6	4019877.6



489	283951.6	4019977.6
490	283951.6	4020077.6
491	283951.6	4020177.6
492	284051.6	4018877.6
493	284051.6	4018977.6
494	284051.6	4019077.6
495	284051.6	4019177.6
496	284051.6	4019277.6
497	284051.6	4019377.6
498	284051.6	4019477.6
499	284051.6	4019577.6
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647	284951.6	4018627.6
648	284951.6	4020377.6
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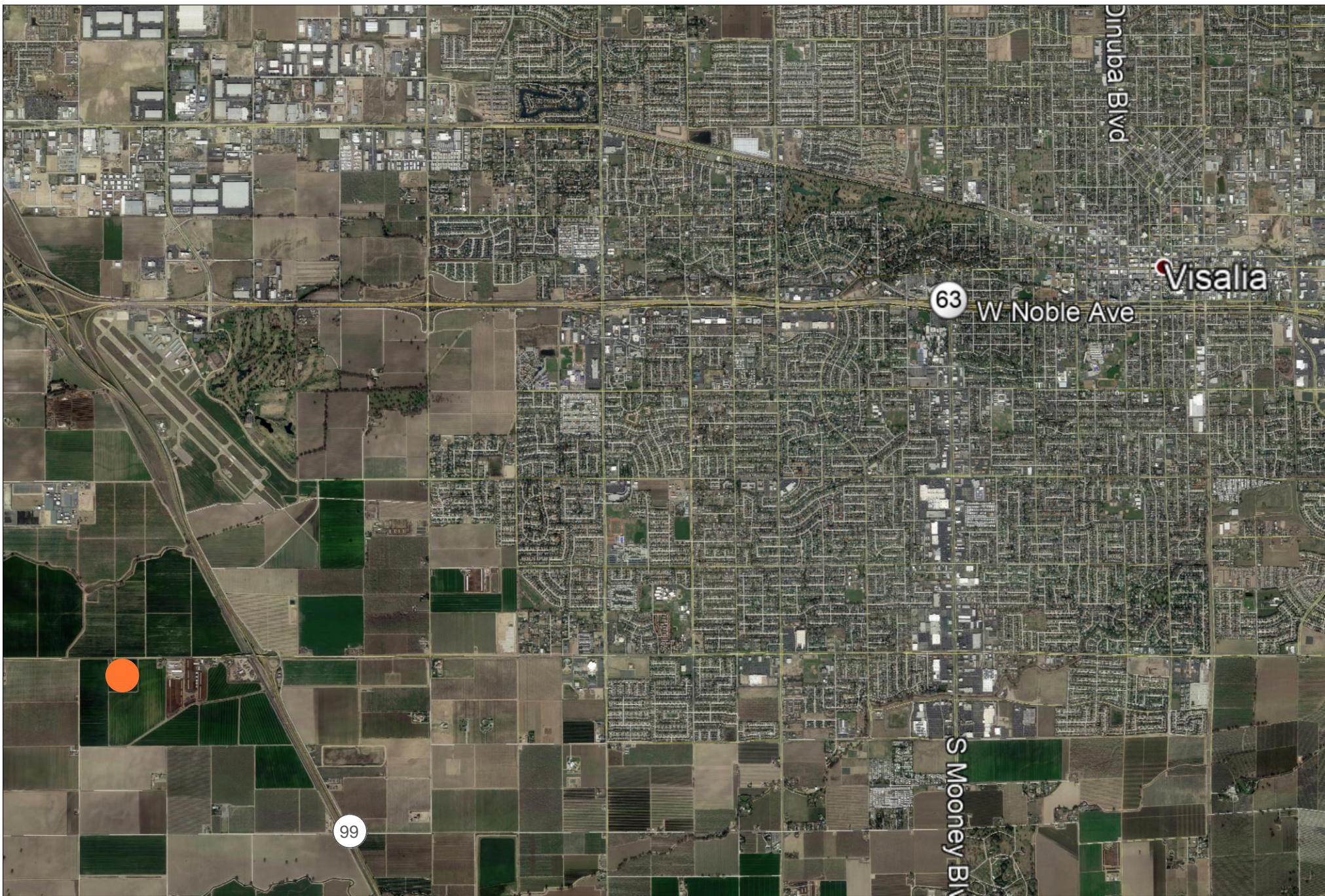
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723	286451.6	4018377.6
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726	286451.6	4019877.6
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## Figures

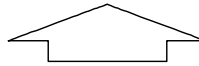




**FIGURE 1: Site Vicinity**

**LEGEND**

 Facility Location

NOT TO SCALE  NORTH

CLIENT:  
Dunn, Inc.

SITE LOCATION:  
7763 Avenue 280  
Visalia, CA 93277



**ALTA**  
ENVIRONMENTAL

AN NVS COMPANY

3777 Long Beach Blvd, Annex Bldg, Long Beach CA 90807  
P: (562) 495-5777 • F: (562) 495-5877 • [altaenviro.com](http://altaenviro.com)

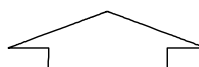




**FIGURE 2: Site Boundaries**

**LEGEND**

 Facility Boundary

NOT TO SCALE  NORTH

CLIENT:  
Dunn, Inc.

SITE LOCATION:  
7763 Avenue 280  
Visalia, CA 93277

 **ALTA**  
ENVIRONMENTAL  
AN **NV5** COMPANY  
3777 Long Beach Blvd. Annex Bldg. Long Beach CA 90807  
P: (562) 495-6777 • F: (562) 495-6877 • altaenviro.com

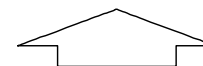




**FIGURE 3: Cancer Risk**

**LEGEND**

- Facility Boundary
- MICR Resident
- PMI
- MICR Worker



NOT TO SCALE NORTH

CLIENT:  
Dunn, Inc.

SITE LOCATION:  
7763 Avenue 280  
Visalia, CA 93277



## **Attachment 1:**

### **Emission Calculations**



## HMA - Dryer Emissions

Pollutant	Production (tons/year)	EF (lbs/ton)	Emissions (lbs/year)	Emissions (tons/year)	Emissions (lbs/day)	EF Basis
PM10	150,000	0.023	3,450	1.73	11.06	AP-42 11.1

AP-42 11.1 does not provide EFs for criteria and toxics for propane dryer so SCAQMD default EFs were used as follows

Pollutant	Hot Oil Heat Requirement (mmBTU/hr)	Propane Heating Value (mmBTU/mgal)	SCAQMD EF (lbs/mgal)*	Emissions (lbs/hr)	Operating Schedule (hours/year)	Emissions (lbs/year)	Emissions (tons/year)	Emissions (lbs/day)
VOC	135	94	0.26	0.373	4,368	1,631.03	0.82	5.23
SOx	135	94	4.60	6.606	4,368	28,856.68	14.43	92.49
NOx	135	94	0.49	0.704	4,368	3,073.86	1.54	9.85
CO	135	94	2.92	4.194	4,368	18,317.72	9.16	58.71

Benzene	135	94	0.00015	0.0002	4,368	0.941
Formaldehyde	135	94	0.00032	0.0005	4,368	2.007
PAHs	135	94	0.00001	1.44E-05	4,368	0.063
Naphthalene	135	94	0.00003	4.31E-05	4,368	0.188
Acetaldehyde	135	94	0.00008	0.0001	4,368	0.502
Acrolein	135	94	0.00007	0.0001	4,368	0.439
Ammonia	135	94	0.30000	0.4309	4,368	1,881.957
Ethyl benzene	135	94	0.00018	0.0003	4,368	1.129
Hexane	135	94	0.00012	0.0002	4,368	0.753
Toluene	135	94	0.00069	0.0010	4,368	4.329
Xylene	135	94	0.00051	0.0007	4,368	3.199

\*From AER reporting tool external combustion EFs and AER supplemental instructions EFs for propane dryers

NOx and CO will be subject to Rule 4309

NOx = 4.3 ppmv @ 19% O2

<https://www.valleyair.org/rules/currnrules/r4309.pdf>

CO = 42 ppmv @ 19% O2



## HMA - Dryer Emissions

Metal	Production (tons/year)	EF (lbs/ton)	Max Emissions (lbs/year)	Emissions (lbs/hr)
Antimony	150,000	1.80E-07	0.027	1.08E-05
Arsenic	150,000	5.60E-07	0.084	3.37E-05
Barium	150,000	5.80E-06	0.870	3.49E-04
Beryllium	150,000	0.00E+00	0.000	0.00E+00
Cadmium	150,000	4.10E-07	0.062	2.46E-05
Chromium	150,000	5.50E-06	0.825	3.31E-04
Cobalt	150,000	2.60E-08	0.004	1.56E-06
Copper	150,000	3.10E-06	0.465	1.86E-04
Hexavalent chrom	150,000	4.50E-07	0.068	2.70E-05
Lead	150,000	6.20E-07	0.093	3.73E-05
Manganese	150,000	7.70E-06	1.155	4.63E-04
Mercury	150,000	2.40E-07	0.036	1.44E-05
Nickel	150,000	6.30E-05	9.450	3.79E-03
Phosphorus	150,000	2.80E-05	4.200	1.68E-03
Silver	150,000	4.80E-07	0.072	2.88E-05
Selenium	150,000	3.50E-07	0.053	2.10E-05
Thallium	150,000	4.10E-09	0.001	2.46E-07
Zinc	150,000	6.10E-05	9.150	3.67E-03

From AP 42 Table 11.10-12



## HMA - Oil Heater Emissions

Pollutant	Hot Oil Heat Requirement (mmBTU/hr)	Propane Heating Value (mmBTU/mgal)*	SCAQMD EF (lbs/mgal)**	EF (lbs/hr)	Operating Schedule (hours/year)	Emissions (lbs/yr)	Emissions (tons/year)	Emissions (lbs/day)
PM10	2	94	0.28	0.006	4,368	26.0	0.013	0.083
VOC	2	94	0.26	0.006	4,368	24.2	0.012	0.077
SOx	2	94	4.60	0.098	4,368	427.5	0.214	1.370
NOx	2	94	12.8	0.272	4,368	1,189.6	0.595	3.813
CO	2	94	3.2	0.068	4,368	297.4	0.149	0.953
Benzene	2	94	0.00071	0.000015	4,368	0.066	3.30E-05	2.11E-04
Formaldehyde	2	94	0.00151	0.000032	4,368	0.140	7.02E-05	4.50E-04
PAHs	2	94	0.00001	0.000000	4,368	0.001	4.65E-07	2.98E-06
Naphthalene	2	94	0.00003	0.000001	4,368	0.003	1.39E-06	8.94E-06
Acetaldehyde	2	94	0.00038	0.000008	4,368	0.035	1.77E-05	1.13E-04
Acrolein	2	94	0.00024	0.000005	4,368	0.022	1.12E-05	7.15E-05
Ammonia	2	94	0.3	0.006383	4,368	27.881	1.39E-02	8.94E-02
Ethyl benzene	2	94	0.00084	0.000018	4,368	0.078	3.90E-05	2.50E-04
Hexane	2	94	0.00056	0.000012	4,368	0.052	2.60E-05	1.67E-04
Toluene	2	94	0.00325	0.000069	4,368	0.302	1.51E-04	9.68E-04
Xylene	2	94	0.00241	0.000051	4,368	0.224	1.12E-04	7.18E-04

\*Refer to Rule 2012A-3-25 HHV table

\*\*Refer to SCAQMD EFs (Appendix A - Default EFs for Combustion Equipment)



### HMA - Cold Feed RAP Emissions

Emission Point	Process	Throughput (tons/hr)	PM10 EF (lbs/ton)*	PM10 (lbs/hr)	PM2.5 EF (lbs/ton)	PM2.5 (lbs/hr)
Cold Feed						
	Loader to Aggregate Receiver	48.1	-	-	-	-
	Belt Feeder to Collecting Conveyor	48.1	4.60E-05	2.21E-03	1.30E-05	6.25E-04
	Collecting Conveyor to Screening	48.1	4.60E-05	2.21E-03	1.30E-05	6.25E-04
	Screen	48.1	0.00074	3.56E-02	0.00005	2.40E-03
	Screen to Belt Conveyor	48.1	4.60E-05	2.21E-03	1.30E-05	6.25E-04
	Belt Conveyor to Dryer	48.1	4.60E-05	2.21E-03	1.30E-05	6.25E-04
RAP System**						
	Loader to RAP Hopper	-	-	-	-	-
	Belt Feeder to Collecting Conveyor	-	4.60E-05	0	1.30E-05	0
	Collecting Conveyor to Screening	-	4.60E-05	0	1.30E-05	0
	Screen	-	0.00074	0	0.00005	0
	Screen to Belt Conveyor	-	4.60E-05	0	1.30E-05	0
	Belt Conveyor to Dryer	-	4.60E-05	0	1.30E-05	0
TOTAL			9.24E-04	4.44E-02		

\*Based on AP-42 Table 11.19.2-2

\*\*The utilization of RAP corresponds to a reduction in like output of virgin aggregate being fed into the plant. As a result, production has been considered for only the cold feed.

Pollutant	Wt. Fraction Asphalt PM10 Dust	Emissions (lb/hr)	Emissions (lb/yr)
Aluminum	1.10E-01	4.89E-03	2.13E+01
Ammonia	3.39E-04	1.51E-05	6.58E-02
Antimony	1.00E-04	4.44E-06	1.94E-02
Barium	9.97E-04	4.43E-05	1.93E-01
Bromine	2.10E-05	9.33E-07	4.07E-03
Chlorine	8.61E-04	3.82E-05	1.67E-01
Chromium	5.60E-05	2.49E-06	1.09E-02
Copper	6.60E-05	2.93E-06	1.28E-02
Hex Chromium	2.80E-06	1.24E-07	5.43E-04
Lead	8.00E-06	3.55E-07	1.55E-03
Manganese	6.62E-04	2.94E-05	1.28E-01
Mercury	7.00E-06	3.11E-07	1.36E-03
Nickel	1.70E-05	7.55E-07	3.30E-03
Phosphorus	1.13E-03	5.02E-05	2.19E-01
Selenium	2.00E-06	8.88E-08	3.88E-04
Silica, Crystalline	2.64E-01	1.17E-02	5.12E+01
Sulfates	2.18E-03	9.68E-05	4.23E-01
Thallium	1.30E-05	5.78E-07	2.52E-03
Vanadium	1.80E-05	8.00E-07	3.49E-03
Zinc	5.60E-05	2.49E-06	1.09E-02

Emission factors derived from EPA Speciate profile 4082



## HMA - Silo Filling Emissions

Pollutant	Annual Production (tons/year)	EF (lbs/ton)*	Control Factor*	Annual Emissions (lbs/year)	Annual Emissions (tons/year)
PM	150,000	0.00059	0.05	4.43	0.002
VOC	150,000	0.01219	-	1,828.05	0.914
CO	150,000	0.00118	-	177.00	0.089

Pollutant	AP-42 EF (%)	95% Eff. Blue Smoke	Organic PM EF (lbs/ton)	Annual Production (tons/year)	Toxic Emissions (lbs/yr)	Toxic Emissions (lbs/hr)
Acenaphthene	0.470%	0.05	0.00059	150,000	2.08E-02	8.33E-06
Acenaphthylene	0.014%	0.05	0.00059	150,000	6.20E-04	2.48E-07
Anthracene	0.130%	0.05	0.00059	150,000	5.75E-03	2.30E-06
Benzo(a) anthracene	0.056%	0.05	0.00059	150,000	2.48E-03	9.93E-07
Benzo(e) pyrene	0.010%	0.05	0.00059	150,000	4.20E-04	1.68E-07
Chrysene	0.210%	0.05	0.00059	150,000	9.29E-03	3.72E-06
Fluoranthene	0.150%	0.05	0.00059	150,000	6.64E-03	2.66E-06
Fluorene	1.010%	0.05	0.00059	150,000	4.47E-02	1.79E-05
2-Methylnaphthalene	5.270%	0.05	0.00059	150,000	2.33E-01	9.34E-05
Naphthalene	1.820%	0.05	0.00059	150,000	8.05E-02	3.23E-05
Perylene	0.030%	0.05	0.00059	150,000	1.33E-03	5.32E-07
Phenanthrene	1.800%	0.05	0.00059	150,000	7.97E-02	3.19E-05
Pyrene	0.440%	0.05	0.00059	150,000	1.95E-02	7.80E-06
Benzene	0.032%	--	0.01219	150,000	5.85E-01	2.34E-04
Ethylbenzene	0.038%	--	0.01219	150,000	6.95E-01	2.78E-04
Formaldehyde	0.690%	--	0.01219	150,000	1.26E+01	5.05E-03
Styrene	0.005%	--	0.01219	150,000	9.87E-02	3.95E-05
Toluene	0.062%	--	0.01219	150,000	1.13E+00	4.54E-04
o-Xylene	0.057%	--	0.01219	150,000	1.04E+00	4.17E-04
Methylene Chloride	0.000%	--	0.01219	150,000	4.94E-03	1.98E-06



## HMA - Silo Loadout Emissions

Pollutant	Annual Production (tons/year)	EF (lbs/ton)	Annual Emissions (lbs/year)	Annual Emissions (tons/year)
PM	150,000	0.00052	78.0	0.039
VOC	150,000	0.00416	623.9	0.312
CO	150,000	0.00135	202.4	0.101

Pollutant	AP-42 EF (%)	EF (lbs/ton)	Annual Production (tons/year)	Toxic Emissions (lbs/yr)	Toxic Emissions (lbs/hr)
Acenaphthene	0.26%	0.00052	150,000	2.03E-01	8.13E-05
Acenaphthylene	0.03%	0.00052	150,000	2.18E-02	8.75E-06
Anthracene	0.07%	0.00052	150,000	5.46E-02	2.19E-05
Benzo(a) anthracene	0.02%	0.00052	150,000	1.48E-02	5.94E-06
Benzo(b) fluoranthene	0.01%	0.00052	150,000	5.93E-03	2.38E-06
Benzo(k) fluoranthene	0.00%	0.00052	150,000	1.72E-03	6.88E-07
Benzo(g,h,i) perylene	0.00%	0.00052	150,000	1.48E-03	5.94E-07
Benzo(a) pyrene	0.00%	0.00052	150,000	1.79E-03	7.19E-07
Benzo(e) pyrene	0.01%	0.00052	150,000	6.08E-03	2.44E-06
Chrysene	0.10%	0.00052	150,000	8.03E-02	3.22E-05
Dibenz(a,h) anthracene	0.00%	0.00052	150,000	2.89E-04	1.16E-07
Fluoranthene	0.05%	0.00052	150,000	3.90E-02	1.56E-05
Fluorene	0.77%	0.00052	150,000	6.01E-01	2.41E-04
Indeno(1,2,3-cd)pyrene	0.00%	0.00052	150,000	3.67E-04	1.47E-07
2-Methylnaphthalene	2.38%	0.00052	150,000	1.86E+00	7.44E-04
Naphthalene	1.25%	0.00052	150,000	9.75E-01	3.91E-04
Perylene	0.02%	0.00052	150,000	1.72E-02	6.88E-06
Phenanthrene	0.81%	0.00052	150,000	6.32E-01	2.53E-04
Pyrene	0.15%	0.00052	150,000	1.17E-01	4.69E-05
Benzene	0.05%	0.00052	150,000	4.06E-02	1.63E-05
Ethylbenzene	0.28%	0.00416	150,000	1.75E+00	7.00E-04
Formaldehyde	0.09%	0.00416	150,000	5.49E-01	2.20E-04
n-hexane	0.15%	0.00416	150,000	9.36E-01	3.75E-04
Styrene	0.01%	0.00416	150,000	4.55E-02	1.82E-05
Toluene	0.21%	0.00416	150,000	1.31E+00	5.25E-04
Trichlorofluoromethane**	0.00%	0.00416	150,000	8.11E-03	3.25E-06
m-,p-Xylene	0.41%	0.00416	150,000	2.56E+00	1.02E-03
o-Xylene	0.08%	0.00416	150,000	4.99E-01	2.00E-04



## HMA - Asphalt Oil Storage Tank Emissions

Tank Diameter	10.25	feet
Tank Length	48	feet
Total Asphalt Oil Throughput per Tank	750,000	gal/year
Total Facility Asphalt Oil	1,500,000	gal/year
Storage Volume	30,000	gal

	lbs/year	tons/year	lbs/day
VOC per tank	511.14	0.256	1.400
Total VOCs	1022.28	0.511	2.801

From EPA TANKS

Pollutant	Wt. Fraction Asphalt Storage VOC	Emissions (lb/hr)	Emissions (lb/yr)
Ethylbenzene	2.32E-02	0.00812	23.72
Naphthalene	6.53E-02	0.02286	66.75
O-xylene	3.73E-02	0.01306	38.13
Trimethylbenzene	8.95E-02	0.03133	91.49
Toluene	6.45E-02	0.02258	65.94
Xylene	8.56E-02	0.02997	87.51

From CARB Speciation Profiles 715, 716



**TANKS 4.0.9d**  
**Emissions Report - Detail Format**  
**Tank Identification and Physical Characteristics**

**Identification**

User Identification:	Asphalt Tank
City:	
State:	California
Company:	
Type of Tank:	Horizontal Tank
Description:	30,000 gallon tank

**Tank Dimensions**

Shell Length (ft):		48.00
Diameter (ft):		10.25
Volume (gallons):		30,000.00
Turnovers:		25.00
Net Throughput(gal/yr):		750,000.00
Is Tank Heated (y/n):	Y	
Is Tank Underground (y/n):	N	

**Paint Characteristics**

Shell Color/Shade:	White/White
Shell Condition	Good

**Breather Vent Settings**

Vacuum Settings (psig):	0.00
Pressure Settings (psig)	0.00

Meteorological Data used in Emissions Calculations: Bakersfield, California (Avg Atmospheric Pressure = 14.47 psia)



**TANKS 4.0.9d**  
**Emissions Report - Detail Format**  
**Liquid Contents of Storage Tank**

**Asphalt Tank - Horizontal Tank**  
**, California**

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Asphalt Oil	All	350.00	300.00	400.00	400.00	0.1805	0.0532	0.5309	84.0000			1,000.00	
Benzene						139.4535	82.3153	220.5297	78.1100	0.0001	0.0036	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Formaldehyde						0.0083	0.0016	0.0296	30.0300	0.0012	0.0000	30.03	Option 2: A=4.28176, B=959.43, C=29.758
Naphthalene						5.3638	2.2954	11.2236	128.2000	0.0010	0.0020	128.20	Option 2: A=7.3729, B=1968.36, C=222.61
Unidentified Components						0.1796	0.1789	0.1789	83.9653	0.9977	0.9944	1,000.26	



**TANKS 4.0.9d**  
**Emissions Report - Detail Format**  
**Detail Calculations (AP-42)**

**Asphalt Tank - Horizontal Tank**  
**, California**

<b>Annual Emission Calculations</b>	
Standing Losses (lb):	240.3879
Vapor Space Volume (cu ft):	2,522.7789
Vapor Density (lb/cu ft):	0.0017
Vapor Space Expansion Factor:	0.1569
Vented Vapor Saturation Factor:	0.9533
<b>Tank Vapor Space Volume:</b>	
Vapor Space Volume (cu ft):	2,522.7789
Tank Diameter (ft):	10.2500
Effective Diameter (ft):	25.0350
Vapor Space Outage (ft):	5.1250
Tank Shell Length (ft):	48.0000
<b>Vapor Density</b>	
Vapor Density (lb/cu ft):	0.0017
Vapor Molecular Weight (lb/lb-mole):	84.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1805
Daily Avg. Liquid Surface Temp. (deg. R):	809.6700
Daily Average Ambient Temp. (deg. F):	65.4000
Ideal Gas Constant R (psia cu ft / (lb-mol-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	859.6700
Tank Paint Solar Absorptance (Shell):	0.1700
Daily Total Solar Insulation Factor (Btu/sqft day):	1,648.9051
<b>Vapor Space Expansion Factor</b>	
Vapor Space Expansion Factor:	0.1569
Daily Vapor Temperature Range (deg. R):	100.0000
Daily Vapor Pressure Range (psia):	0.4777
Breather Vent Press. Setting Range (psia):	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1805
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.0532
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.5309
Daily Avg. Liquid Surface Temp. (deg R):	809.6700
Daily Min. Liquid Surface Temp. (deg R):	759.6700
Daily Max. Liquid Surface Temp. (deg R):	859.6700
Daily Ambient Temp. Range (deg. R):	24.5000
<b>Vented Vapor Saturation Factor</b>	
Vented Vapor Saturation Factor:	0.9533
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1805
Vapor Space Outage (ft):	5.1250
<b>Working Losses (lb):</b>	
Working Losses (lb):	270.7500
Vapor Molecular Weight (lb/lb-mole):	84.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1805
Annual Net Throughput (gal/yr.):	750,000.0000
Annual Turnovers:	25.0000
Turnover Factor:	1.0000
Tank Diameter (ft):	10.2500
Working Loss Product Factor:	1.0000
<b>Total Losses (lb):</b>	<b>511.1379</b>



**TANKS 4.0.9d**  
**Emissions Report - Detail Format**  
**Individual Tank Emission Totals**

**Emissions Report for: Annual**

**Asphalt Tank - Horizontal Tank**  
**, California**

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Asphalt Oil	270.75	240.39	511.14
Benzene	0.97	0.87	1.84
Unidentified Components	269.23	239.04	508.27
Naphthalene	0.54	0.48	1.02
Formaldehyde	0.00	0.00	0.00



## HMA - Storage Pile Emissions

Production Rate	Total PM EF (lbs/ton)*	Annual Emissions (lbs/year)	Annual Emissions (tons/year)	Emissions (lbs/hr)
150,000	0.0165	2,475.00	1.24	0.283

\*Based on AP-42 Section 11.19.1 Table 4-1

Pollutant	Wt Fraction Aggregate*	Emissions (lbs/hr)	Emissions (lbs/yr)
Arsenic	2.00E-05	5.65E-06	4.95E-02
Beryllium	1.00E-06	2.83E-07	2.48E-03
Cadmium	1.00E-06	2.83E-07	2.48E-03
Chromium	5.00E-05	1.41E-05	1.24E-01
Copper	1.00E-04	2.83E-05	2.48E-01
Hexavalent Chromium	2.50E-06	7.06E-07	6.19E-03
Lead	5.00E-05	1.41E-05	1.24E-01
Manganese	5.00E-04	1.41E-04	1.24E+00
Nickel	2.00E-05	5.65E-06	4.95E-02
Selenium	5.00E-06	1.41E-06	1.24E-02
Zinc	2.00E-04	5.65E-05	4.95E-01

\*From "DEFAULT VALUES - Material Storage" in December 1998 San Diego APCD document *Open Material Storage Areas*



### Concrete Batch Plant - Batching Emissions

Process	Throughput (tons/hr)	PM10 EF (lbs/ton)	PM10 (lbs/hr)	Control Efficiency	Plant PM10 (lbs/hr)	Source
Truck Unloading to Load Feed Hopper	66.1	3.30E-03	2.18E-01	--	2.18E-01	AP 42 Section 11.12
Load Feed Hopper to Belt Conveyor 1	66.1	3.30E-03	2.18E-01	--	2.18E-01	AP 42 Section 11.12
Belt Conveyor 1 to Aggregate Bin	66.1	3.30E-03	2.18E-01	--	2.18E-01	AP 42 Section 11.12
Aggregate Bin to Aggregate Weigh Hopper	66.1	3.30E-03	2.18E-01	--	2.18E-01	AP 42 Section 11.12
Aggregate Weigh Hopper to Belt Conveyor 2	66.1	3.30E-03	2.18E-01	--	2.18E-01	AP 42 Section 11.12
Belt Conveyor to Truck Loading	66.1	3.10E-01	2.05E+01	99.9	2.05E-02	AP 42 Section 11.12
Cement Unloading to Storage Silos	26.0	4.70E-01	1.22E+01	99.9	1.22E-02	AP 42 Section 11.12
Fly Ash Unloading to Storage Silos	26.0	1.10E+00	2.86E+01	99.9	2.86E-02	AP 42 Section 11.13
Storage Silo 1 to Screw Conveyor	8.5	2.80E-03	2.37E-02	99.9	2.37E-05	AP 42 Section 11.12
Storage Silo 2 to Cement Weigh Hopper	8.5	2.80E-03	2.37E-02	99.9	2.37E-05	AP 42 Section 11.12
Screw Conveyor to Cement Weigh Hopper	8.5	2.80E-03	2.37E-02	99.9	2.37E-05	AP 42 Section 11.12
Cement Weigh Hopper to Truck Loading	8.5	3.10E-01	2.63E+00	99.9	2.63E-03	AP 42 Section 11.12
		<b>Total</b>	6.51E+01	<b>Total</b>	1.15E+00	

Process	Throughput (tons/hr)	Ar (lbs/hr)	Be (lbs/hr)	Cd (lbs/hr)	Cr (lbs/hr)	Pb (lbs/hr)	Mn (lbs/hr)	Ni (lbs/hr)	P (lbs/hr)	Se (lbs/hr)
Cement Silo Filling	26	4.37E-08	4.65E-10	6.08E-09	6.55E-09	1.91E-08	5.25E-06	4.58E-07	3.07E-07	--
Cement Supplement Silo Filling	26	2.60E-05	2.35E-06	5.15E-09	3.17E-05	1.35E-05	6.66E-06	5.93E-05	9.20E-05	1.88E-06
Truck Loading	74.6	9.10E-07	1.82E-08	2.55E-09	8.50E-07	2.70E-07	4.56E-06	8.87E-07	2.86E-06	1.95E-07

	Throughput (tons/hr)	Ar (lbs/yr)	Be (lbs/yr)	Cd (lbs/yr)	Cr (lbs/yr)	Pb (lbs/yr)	Mn (lbs/yr)	Ni (lbs/yr)	P (lbs/yr)	Se (lbs/yr)
Cement Silo Filling	26	1.91E-04	2.03E-06	2.66E-05	2.86E-05	8.36E-05	2.29E-02	2.00E-03	1.34E-03	--
Cement Supplement Silo Filling	26	1.14E-01	1.03E-02	2.25E-05	1.39E-01	5.91E-02	2.91E-02	2.59E-01	4.02E-01	8.22E-03
Truck Loading	74.6	3.97E-03	7.95E-05	1.11E-05	3.71E-03	1.18E-03	1.99E-02	3.88E-03	1.25E-02	8.53E-04



## Concrete Batch Plant - Storage Pile Emissions

Production Rate	Total PM EF (lbs/ton)*	Annual Emissions (lbs/year)	Annual Emissions (tons/year)	Emissions (lbs/hr)
200,250	0.0165	3,304.13	1.65	0.377

\*Based on AP-42 Section 11.19.1 Table 4-1

Pollutant	Wt Fraction Aggregate*	Emissions (lbs/hr)	Emissions (lbs/yr)
Arsenic	2.00E-05	7.54E-06	6.61E-02
Beryllium	1.00E-06	3.77E-07	3.30E-03
Cadmium	1.00E-06	3.77E-07	3.30E-03
Chromium	5.00E-05	1.89E-05	1.65E-01
Copper	1.00E-04	3.77E-05	3.30E-01
Hexavalent Chromium	2.50E-06	9.43E-07	8.26E-03
Lead	5.00E-05	1.89E-05	1.65E-01
Manganese	5.00E-04	1.89E-04	1.65E+00
Nickel	2.00E-05	7.54E-06	6.61E-02
Selenium	5.00E-06	1.89E-06	1.65E-02
Zinc	2.00E-04	7.54E-05	6.61E-01

\*From "DEFAULT VALUES - Material Storage" in December 1998 San Diego APCD document *Open Material Storage Areas*



## RAP - Storage Pile Emissions

Production Rate	Total PM EF (lbs/ton)*	Annual Emissions (lbs/year)	Annual Emissions (tons/year)	Emissions (lbs/hr)
39,000	0.0165	643.50	0.32	0.073

\*Based on AP-42 Section 11.19.1 Table 4-1

Pollutant	Wt Fraction Aggregate*	Emissions (lbs/hr)	Emissions (lbs/yr)
Arsenic	2.00E-05	1.47E-06	1.29E-02
Beryllium	1.00E-06	7.35E-08	6.44E-04
Cadmium	1.00E-06	7.35E-08	6.44E-04
Chromium	5.00E-05	3.67E-06	3.22E-02
Copper	1.00E-04	7.35E-06	6.44E-02
Hexavalent Chromium	2.50E-06	1.84E-07	1.61E-03
Lead	5.00E-05	3.67E-06	3.22E-02
Manganese	5.00E-04	3.67E-05	3.22E-01
Nickel	2.00E-05	1.47E-06	1.29E-02
Selenium	5.00E-06	3.67E-07	3.22E-03
Zinc	2.00E-04	1.47E-05	1.29E-01

\*From "DEFAULT VALUES - Material Storage" in December 1998 San Diego APCD document *Open Material Storage Areas*



### RAP - RAP Processing Emissions

Process	Throughput (tons/hr)	PM10 EF (lbs/ton)	PM10 (lbs/hr)	PM10 (lbs/yr)
Loader to Impact Crusher	15.6	0.000046	0.0007	3.14
Impact Crusher	15.6	0.000540	0.0084	36.86
Impact Crusher to Stacker	15.6	0.000046	0.0007	3.14
Stacker to Stockpiles	15.6	0.000046	0.0007	3.14
	TOTAL	0.000678	0.0106	46.27

\*Based on AP-42 Table 11.19.2-2

Pollutant	Wt. Fraction Asphalt PM10 Dust	Emissions (lb/hr)	Emissions (lb/yr)
Aluminum	1.10E-01	1.17E-03	5.09E+00
Ammonia	3.39E-04	3.59E-06	1.57E-02
Antimony	1.00E-04	1.06E-06	4.63E-03
Barium	9.97E-04	1.06E-05	4.61E-02
Bromine	2.10E-05	2.22E-07	9.72E-04
Chlorine	8.61E-04	9.12E-06	3.98E-02
Chromium	5.60E-05	5.93E-07	2.59E-03
Copper	6.60E-05	6.99E-07	3.05E-03
Hex Chromium	2.80E-06	2.97E-08	1.30E-04
Lead	8.00E-06	8.48E-08	3.70E-04
Manganese	6.62E-04	7.01E-06	3.06E-02
Mercury	7.00E-06	7.42E-08	3.24E-04
Nickel	1.70E-05	1.80E-07	7.87E-04
Phosphorus	1.13E-03	1.20E-05	5.23E-02
Selenium	2.00E-06	2.12E-08	9.25E-05
Silica, Crystalline	2.64E-01	2.80E-03	1.22E+01
Sulfates	2.18E-03	2.31E-05	1.01E-01
Thallium	1.30E-05	1.38E-07	6.02E-04
Vanadium	1.80E-05	1.91E-07	8.33E-04
Zinc	5.60E-05	5.93E-07	2.59E-03



## All Plants - Diesel PM - Running Exhaust (non-idling)

### Concrete Batch Plant

Vehicle	Pollutant	EF (lbs/ vehicle/ day)	Round Trip Distance (miles)	Annual Truck Trips	Annual Emissions (lbs/yr)	Emissions (lbs/hr)
T7	PM10	0.00012976	2	6,760	1.75	0.0004
T6	PM10	0.00020062	2	10,400	4.17	0.0010
				<b>Total</b>	5.93	0.0014
				<b>Sources</b>	124	124
				<b>Emissions per source</b>	0.05	1.09E-05

### Diesel PM for HRA

Model Input ID	Annual Emissions (lbs/yr)	Emissions (lbs/hr)
CON	0.0478	1.09E-05
ASP	0.0382	8.75E-06
RAP	0.0058	1.33E-06
ALL	0.0918	2.10E-05
OFF	0.1837	4.20E-05
AR	0.0440	1.01E-05
AC	0.0860	1.97E-05

### HMA

Vehicle	Pollutant	EF (lbs/ vehicle/ day)	Round Trip Distance (miles)	Annual Truck Trips	Annual Emissions (lbs/yr)	Emissions (lbs/hr)
T7	PM10	0.00012976	2	284	0.07	0.0000
T6	PM10	0.00020062	2	12,300	4.94	0.0011
				<b>Total</b>	5.01	0.0011
				<b>Sources</b>	131	131
				<b>Emissions per source</b>	0.04	8.75E-06

### RAP

Vehicle	Pollutant	EF (lbs/ vehicle/ day)	Round Trip Distance (miles)	Annual Truck Trips	Annual Emissions (lbs/yr)	Emissions (lbs/hr)
T7	PM10	0.00012976	2	2,860	0.74	0.0002
				<b>Total</b>	0.74	0.0002
				<b>Sources</b>	128	128
				<b>Emissions per source</b>	0.01	1.33E-06

EMFAC2017 (v1.0.2) Emission Rates

Region Type: Air District

Region: SAN JOAQUIN VALLEY UNIFIED APCD

Calendar Year: 2021

Season: Annual

Vehicle Classification: EMFAC2007 Categories



## All Plants - Diesel PM - Idling

### Concrete Batch Plant

Vehicle	Pollutant	EF (lbs/mile)	Annual Operating Days	Vehicles per Day	Annual Emissions (lbs/yr)	Emissions (lbs/hr)
T7	PM10	0.00026078	312	22	1.79	0.0004
T6	PM10	6.1739E-05	312	33	0.64	0.0001
				<b>Total</b>	2.43	0.0006

### HMA

Vehicle	Pollutant	EF (lbs/mile)*	Annual Operating Days	Vehicles per Day	Annual Emissions (lbs/yr)	Emissions (lbs/hr)
T7	PM10	0.00026078	312	0.9	0.07	0.0000
T6	PM10	6.1739E-05	312	39	0.75	0.0002
				<b>Total</b>	0.82	0.0002

### RAP

Vehicle	Pollutant	EF (lbs/mile)*	Annual Operating Days	Vehicles per Day	Annual Emissions (lbs/yr)	Emissions (lbs/hr)
T7	PM10	0.00026078	312	9	0.73	0.0002
				<b>Total</b>	0.73	0.0002

EMFAC2017 (v1.0.2) Emission Rates

Region Type: Air District

Region: SAN JOAQUIN VALLEY UNIFIED APCD

Calendar Year: 2021

Season: Annual

Vehicle Classification: EMFAC2007 Categories



## **Attachment 2:**

**CalEEMod Emission Estimates**



Dunn V2 - San Joaquin Valley Unified APCD Air District, Annual

**Dunn V2****San Joaquin Valley Unified APCD Air District, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	50.00	1000sqft	1.15	50,000.00	0
Other Asphalt Surfaces	700.00	1000sqft	16.07	700,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.7	<b>Precipitation Freq (Days)</b>	45
<b>Climate Zone</b>	7	<b>Operational Year</b>	2021		

**Utility Company**

<b>CO2 Intensity (lb/MW hr)</b>	0	<b>CH4 Intensity (lb/MW hr)</b>	0	<b>N2O Intensity (lb/MW hr)</b>	0
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**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use -

Construction Phase - Construction expected to take approximately one year

Grading - Site is only 18 acres

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	300.00	174.00



tblGrading	AcresOfGrading	75.00	18.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.0104	4.1615	3.6614	0.0100	0.6096	0.1584	0.7680	0.2133	0.1480	0.3613	0.0000	906.2823	906.2823	0.1190	0.0000	909.2582
Maximum	1.0104	4.1615	3.6614	0.0100	0.6096	0.1584	0.7680	0.2133	0.1480	0.3613	0.0000	906.2823	906.2823	0.1190	0.0000	909.2582

#### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.0104	4.1615	3.6614	0.0100	0.6096	0.1584	0.7680	0.2133	0.1480	0.3613	0.0000	906.2819	906.2819	0.1190	0.0000	909.2578
Maximum	1.0104	4.1615	3.6614	0.0100	0.6096	0.1584	0.7680	0.2133	0.1480	0.3613	0.0000	906.2819	906.2819	0.1190	0.0000	909.2578

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
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Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-2-2020	4-1-2020	1.5511	1.5511
2	4-2-2020	7-1-2020	1.2737	1.2737
3	7-2-2020	9-30-2020	1.2737	1.2737
		Highest	1.5511	1.5511

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2905	6.0000e-005	6.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0134	0.0134	4.0000e-005	0.0000	0.0143
Energy	4.5300e-003	0.0412	0.0346	2.5000e-004		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	44.8256	44.8256	8.6000e-004	8.2000e-004	45.0920
Mobile	0.0321	0.3523	0.3680	1.7800e-003	0.1105	1.6400e-003	0.1122	0.0297	1.5500e-003	0.0313	0.0000	164.6994	164.6994	9.4100e-003	0.0000	164.9348
Waste						0.0000	0.0000		0.0000	0.0000	12.5854	0.0000	12.5854	0.7438	0.0000	31.1799
Water						0.0000	0.0000		0.0000	0.0000	3.6683	0.0000	3.6683	0.3768	8.9000e-003	15.7384
Total	0.3272	0.3935	0.4095	2.0300e-003	0.1105	4.7900e-003	0.1153	0.0297	4.7000e-003	0.0344	16.2537	209.5384	225.7921	1.1309	9.7200e-003	256.9594

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					



Area	0.2905	6.0000e-005	6.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0134	0.0134	4.0000e-005	0.0000	0.0143
Energy	4.5300e-003	0.0412	0.0346	2.5000e-004		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	44.8256	44.8256	8.6000e-004	8.2000e-004	45.0920
Mobile	0.0321	0.3523	0.3680	1.7800e-003	0.1105	1.6400e-003	0.1122	0.0297	1.5500e-003	0.0313	0.0000	164.6994	164.6994	9.4100e-003	0.0000	164.9348
Waste						0.0000	0.0000		0.0000	0.0000	12.5854	0.0000	12.5854	0.7438	0.0000	31.1799
Water						0.0000	0.0000		0.0000	0.0000	3.6683	0.0000	3.6683	0.3768	8.9000e-003	15.7384
<b>Total</b>	<b>0.3272</b>	<b>0.3935</b>	<b>0.4095</b>	<b>2.0300e-003</b>	<b>0.1105</b>	<b>4.7900e-003</b>	<b>0.1153</b>	<b>0.0297</b>	<b>4.7000e-003</b>	<b>0.0344</b>	<b>16.2537</b>	<b>209.5384</b>	<b>225.7921</b>	<b>1.1309</b>	<b>9.7200e-003</b>	<b>256.9594</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.0 Construction Detail

#### Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/2/2020	1/15/2020	5	10	
2	Grading	Grading	1/16/2020	2/26/2020	5	30	
3	Building Construction	Building Construction	2/27/2020	10/27/2020	5	174	
4	Paving	Paving	10/28/2020	11/24/2020	5	20	
5	Architectural Coating	Architectural Coating	11/25/2020	12/22/2020	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 18

Acres of Paving: 16.07

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 75,000; Non-Residential Outdoor: 25,000; Striped Parking Area:

#### OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
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Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

### **Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	315.00	123.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	63.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

### **3.1 Mitigation Measures Construction**

### **3.2 Site Preparation - 2020**

#### **Unmitigated Construction On-Site**



	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
<b>Total</b>	<b>0.0204</b>	<b>0.2121</b>	<b>0.1076</b>	<b>1.9000e-004</b>	<b>0.0903</b>	<b>0.0110</b>	<b>0.1013</b>	<b>0.0497</b>	<b>0.0101</b>	<b>0.0598</b>	<b>0.0000</b>	<b>16.7153</b>	<b>16.7153</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>16.8505</b>

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3000e-004	3.8000e-004	3.8000e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.9948	0.9948	3.0000e-005	0.0000	0.9955
<b>Total</b>	<b>5.3000e-004</b>	<b>3.8000e-004</b>	<b>3.8000e-003</b>	<b>1.0000e-005</b>	<b>1.1200e-003</b>	<b>1.0000e-005</b>	<b>1.1300e-003</b>	<b>3.0000e-004</b>	<b>1.0000e-005</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>0.9948</b>	<b>0.9948</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.9955</b>

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					



Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2121	0.1076	1.9000e-004		0.0110	0.0110		0.0101	0.0101	0.0000	16.7153	16.7153	5.4100e-003	0.0000	16.8505
<b>Total</b>	<b>0.0204</b>	<b>0.2121</b>	<b>0.1076</b>	<b>1.9000e-004</b>	<b>0.0903</b>	<b>0.0110</b>	<b>0.1013</b>	<b>0.0497</b>	<b>0.0101</b>	<b>0.0598</b>	<b>0.0000</b>	<b>16.7153</b>	<b>16.7153</b>	<b>5.4100e-003</b>	<b>0.0000</b>	<b>16.8505</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3000e-004	3.8000e-004	3.8000e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.9948	0.9948	3.0000e-005	0.0000	0.9955
<b>Total</b>	<b>5.3000e-004</b>	<b>3.8000e-004</b>	<b>3.8000e-003</b>	<b>1.0000e-005</b>	<b>1.1200e-003</b>	<b>1.0000e-005</b>	<b>1.1300e-003</b>	<b>3.0000e-004</b>	<b>1.0000e-005</b>	<b>3.0000e-004</b>	<b>0.0000</b>	<b>0.9948</b>	<b>0.9948</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>0.9955</b>

**3.3 Grading - 2020**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0999	0.0000	0.0999	0.0507	0.0000	0.0507	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0668	0.7530	0.4794	9.3000e-004		0.0326	0.0326		0.0300	0.0300	0.0000	81.7264	81.7264	0.0264	0.0000	82.3872
<b>Total</b>	<b>0.0668</b>	<b>0.7530</b>	<b>0.4794</b>	<b>9.3000e-004</b>	<b>0.0999</b>	<b>0.0326</b>	<b>0.1325</b>	<b>0.0507</b>	<b>0.0300</b>	<b>0.0807</b>	<b>0.0000</b>	<b>81.7264</b>	<b>81.7264</b>	<b>0.0264</b>	<b>0.0000</b>	<b>82.3872</b>



Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7700e-003	1.2800e-003	0.0127	4.0000e-005	3.7300e-003	3.0000e-005	3.7500e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	3.3160	3.3160	9.0000e-005	0.0000	3.3182
Total	1.7700e-003	1.2800e-003	0.0127	4.0000e-005	3.7300e-003	3.0000e-005	3.7500e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	3.3160	3.3160	9.0000e-005	0.0000	3.3182

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0999	0.0000	0.0999	0.0507	0.0000	0.0507	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0668	0.7530	0.4794	9.3000e-004		0.0326	0.0326		0.0300	0.0300	0.0000	81.7263	81.7263	0.0264	0.0000	82.3871
Total	0.0668	0.7530	0.4794	9.3000e-004	0.0999	0.0326	0.1325	0.0507	0.0300	0.0807	0.0000	81.7263	81.7263	0.0264	0.0000	82.3871

Mitigated Construction Off-Site







Vendor	0.0399	1.2482	0.2358	2.8200e-003	0.0642	6.5400e-003	0.0707	0.0185	6.2600e-003	0.0248	0.0000	267.9144	267.9144	0.0226	0.0000	268.4805
Worker	0.1613	0.1166	1.1585	3.3500e-003	0.3407	2.3300e-003	0.3430	0.0905	2.1400e-003	0.0927	0.0000	302.9117	302.9117	8.3600e-003	0.0000	303.1209
<b>Total</b>	<b>0.2013</b>	<b>1.3648</b>	<b>1.3944</b>	<b>6.1700e-003</b>	<b>0.4048</b>	<b>8.8700e-003</b>	<b>0.4137</b>	<b>0.1091</b>	<b>8.4000e-003</b>	<b>0.1175</b>	<b>0.0000</b>	<b>570.8262</b>	<b>570.8262</b>	<b>0.0310</b>	<b>0.0000</b>	<b>571.6013</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1844	1.6692	1.4658	2.3400e-003		0.0972	0.0972		0.0914	0.0914	0.0000	201.5005	201.5005	0.0492	0.0000	202.7294
<b>Total</b>	<b>0.1844</b>	<b>1.6692</b>	<b>1.4658</b>	<b>2.3400e-003</b>		<b>0.0972</b>	<b>0.0972</b>		<b>0.0914</b>	<b>0.0914</b>	<b>0.0000</b>	<b>201.5005</b>	<b>201.5005</b>	<b>0.0492</b>	<b>0.0000</b>	<b>202.7294</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0399	1.2482	0.2358	2.8200e-003	0.0642	6.5400e-003	0.0707	0.0185	6.2600e-003	0.0248	0.0000	267.9144	267.9144	0.0226	0.0000	268.4805
Worker	0.1613	0.1166	1.1585	3.3500e-003	0.3407	2.3300e-003	0.3430	0.0905	2.1400e-003	0.0927	0.0000	302.9117	302.9117	8.3600e-003	0.0000	303.1209
<b>Total</b>	<b>0.2013</b>	<b>1.3648</b>	<b>1.3944</b>	<b>6.1700e-003</b>	<b>0.4048</b>	<b>8.8700e-003</b>	<b>0.4137</b>	<b>0.1091</b>	<b>8.4000e-003</b>	<b>0.1175</b>	<b>0.0000</b>	<b>570.8262</b>	<b>570.8262</b>	<b>0.0310</b>	<b>0.0000</b>	<b>571.6013</b>



### 3.5 Paving - 2020

#### Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1407	0.1465	2.3000e-004		7.5300e-003	7.5300e-003		6.9300e-003	6.9300e-003	0.0000	20.0282	20.0282	6.4800e-003	0.0000	20.1902
Paving	0.0211					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0346</b>	<b>0.1407</b>	<b>0.1465</b>	<b>2.3000e-004</b>		<b>7.5300e-003</b>	<b>7.5300e-003</b>		<b>6.9300e-003</b>	<b>6.9300e-003</b>	<b>0.0000</b>	<b>20.0282</b>	<b>20.0282</b>	<b>6.4800e-003</b>	<b>0.0000</b>	<b>20.1902</b>

#### Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.8000e-004	6.4000e-004	6.3400e-003	2.0000e-005	1.8600e-003	1.0000e-005	1.8800e-003	5.0000e-004	1.0000e-005	5.1000e-004	0.0000	1.6580	1.6580	5.0000e-005	0.0000	1.6591
<b>Total</b>	<b>8.8000e-004</b>	<b>6.4000e-004</b>	<b>6.3400e-003</b>	<b>2.0000e-005</b>	<b>1.8600e-003</b>	<b>1.0000e-005</b>	<b>1.8800e-003</b>	<b>5.0000e-004</b>	<b>1.0000e-005</b>	<b>5.1000e-004</b>	<b>0.0000</b>	<b>1.6580</b>	<b>1.6580</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.6591</b>

#### Mitigated Construction On-Site







Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
<b>Total</b>	<b>0.4961</b>	<b>0.0168</b>	<b>0.0183</b>	<b>3.0000e-005</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>2.5582</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7100e-003	2.6800e-003	0.0266	8.0000e-005	7.8300e-003	5.0000e-005	7.8800e-003	2.0800e-003	5.0000e-005	2.1300e-003	0.0000	6.9635	6.9635	1.9000e-004	0.0000	6.9683
<b>Total</b>	<b>3.7100e-003</b>	<b>2.6800e-003</b>	<b>0.0266</b>	<b>8.0000e-005</b>	<b>7.8300e-003</b>	<b>5.0000e-005</b>	<b>7.8800e-003</b>	<b>2.0800e-003</b>	<b>5.0000e-005</b>	<b>2.1300e-003</b>	<b>0.0000</b>	<b>6.9635</b>	<b>6.9635</b>	<b>1.9000e-004</b>	<b>0.0000</b>	<b>6.9683</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4936					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4200e-003	0.0168	0.0183	3.0000e-005		1.1100e-003	1.1100e-003		1.1100e-003	1.1100e-003	0.0000	2.5533	2.5533	2.0000e-004	0.0000	2.5582
<b>Total</b>	<b>0.4961</b>	<b>0.0168</b>	<b>0.0183</b>	<b>3.0000e-005</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>		<b>1.1100e-003</b>	<b>1.1100e-003</b>	<b>0.0000</b>	<b>2.5533</b>	<b>2.5533</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>2.5582</b>



Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7100e-003	2.6800e-003	0.0266	8.0000e-005	7.8300e-003	5.0000e-005	7.8800e-003	2.0800e-003	5.0000e-005	2.1300e-003	0.0000	6.9635	6.9635	1.9000e-004	0.0000	6.9683
Total	3.7100e-003	2.6800e-003	0.0266	8.0000e-005	7.8300e-003	5.0000e-005	7.8800e-003	2.0800e-003	5.0000e-005	2.1300e-003	0.0000	6.9635	6.9635	1.9000e-004	0.0000	6.9683

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0321	0.3523	0.3680	1.7800e-003	0.1105	1.6400e-003	0.1122	0.0297	1.5500e-003	0.0313	0.0000	164.6994	164.6994	9.4100e-003	0.0000	164.9348
Unmitigated	0.0321	0.3523	0.3680	1.7800e-003	0.1105	1.6400e-003	0.1122	0.0297	1.5500e-003	0.0313	0.0000	164.6994	164.6994	9.4100e-003	0.0000	164.9348

4.2 Trip Summary Information

	Average Daily Trip Rate	Unmitigated	Mitigated
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Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	75.00	75.00	75.00	289,760	289,760
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	75.00	75.00	75.00	289,760	289,760

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.506092	0.032602	0.169295	0.124521	0.019914	0.005374	0.021664	0.110051	0.001797	0.001623	0.005307	0.000969	0.000792
Other Asphalt Surfaces	0.506092	0.032602	0.169295	0.124521	0.019914	0.005374	0.021664	0.110051	0.001797	0.001623	0.005307	0.000969	0.000792

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	4.5300e-003	0.0412	0.0346	2.5000e-004		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	44.8256	44.8256	8.6000e-004	8.2000e-004	45.0920



NaturalGas Unmitigated	4.5300e-003	0.0412	0.0346	2.5000e-004		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	44.8256	44.8256	8.6000e-004	8.2000e-004	45.0920
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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	840000	4.5300e-003	0.0412	0.0346	2.5000e-004		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	44.8256	44.8256	8.6000e-004	8.2000e-004	45.0920
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		4.5300e-003	0.0412	0.0346	2.5000e-004		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	44.8256	44.8256	8.6000e-004	8.2000e-004	45.0920

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	840000	4.5300e-003	0.0412	0.0346	2.5000e-004		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	44.8256	44.8256	8.6000e-004	8.2000e-004	45.0920
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		4.5300e-003	0.0412	0.0346	2.5000e-004		3.1300e-003	3.1300e-003		3.1300e-003	3.1300e-003	0.0000	44.8256	44.8256	8.6000e-004	8.2000e-004	45.0920

5.3 Energy by Land Use - Electricity

Unmitigated



	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	118000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	118000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					



Mitigated	0.2905	6.0000e-005	6.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0134	0.0134	4.0000e-005	0.0000	0.0143
Unmitigated	0.2905	6.0000e-005	6.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0134	0.0134	4.0000e-005	0.0000	0.0143

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0494					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.5000e-004	6.0000e-005	6.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0134	0.0134	4.0000e-005	0.0000	0.0143
Total	0.2905	6.0000e-005	6.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0134	0.0134	4.0000e-005	0.0000	0.0143

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0494					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.5000e-004	6.0000e-005	6.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0134	0.0134	4.0000e-005	0.0000	0.0143
Total	0.2905	6.0000e-005	6.9200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0134	0.0134	4.0000e-005	0.0000	0.0143



## 7.0 Water Detail

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### 7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.6683	0.3768	8.9000e-003	15.7384
Unmitigated	3.6683	0.3768	8.9000e-003	15.7384

### 7.2 Water by Land Use

#### Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	11.5625 / 0	3.6683	0.3768	8.9000e-003	15.7384
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		3.6683	0.3768	8.9000e-003	15.7384

#### Mitigated



	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	11.5625 / 0	3.6683	0.3768	8.9000e-003	15.7384
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>3.6683</b>	<b>0.3768</b>	<b>8.9000e-003</b>	<b>15.7384</b>

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

#### Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	12.5854	0.7438	0.0000	31.1799
Unmitigated	12.5854	0.7438	0.0000	31.1799

### 8.2 Waste by Land Use

#### Unmitigated



	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	62	12.5854	0.7438	0.0000	31.1799
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>12.5854</b>	<b>0.7438</b>	<b>0.0000</b>	<b>31.1799</b>

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	62	12.5854	0.7438	0.0000	31.1799
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>12.5854</b>	<b>0.7438</b>	<b>0.0000</b>	<b>31.1799</b>

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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## **APPENDIX A.3**

### **AUTHORITY TO CONSTRUCT APPLICATIONS**



September 6, 2019

Dunn's Inc.  
303 N. Ben Maddox Way  
Visalia, 93292

Attention: Mark Dunn

Subject: San Joaquin Valley APCD Hot Mix Asphalt Plant Permit Application

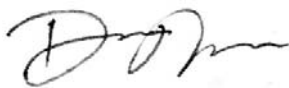
Dear Mark:

Enclosed is your copy and the original permit application package for your hot mix asphalt plant with San Joaquin Valley APCD.

Please sign the originals and forward the original to the San Joaquin Valley APCD, along with a check in the amount of \$87.00 to cover the filing fee. In addition, every applicant who files an application for an Authority to Construct or a Permit to Operate with the District shall pay an engineering evaluation fee for the processing of the application. The fee shall be calculated using the staff hours expended and the prevailing weighted labor rate. All filing fees paid shall be credited towards the evaluation fee.

If you have any questions, please feel free to call me at (562) 495-5777.

Sincerely,



Diana Nguyen  
Alta Environmental



September 6, 2019

San Joaquin Valley Air Pollution Control District  
1900 East Gettysburg Avenue  
Fresno, CA 93726-0244

Attention: Permit Services

Subject: Dunn's Inc.  
Hot Mix Asphalt Plant Permit Application

Attached you will find the application package which covers the permit to construct for Dunn's Inc. hot mix asphalt plant. You will also find a check in the amount of \$87.00 to cover the filing fees.

We trust the information provided will allow you to complete your evaluation. If you have any questions, please feel free to give us a call at (562) 495-5777.

Best Regards,



Diana Nguyen  
Alta Environmental

cc: Mark Dunn, Dunn's Inc.





Alta Environmental an NV5 Company  
3777 Long Beach Boulevard, Annex Building  
Long Beach, CA 90807  
T: (562) 495-5777 F: (562) 495-5877

## FEE SCHEDULE WORK SHEET

(For Permit Processing in Accordance With Rule 3010)

Permits to be issued to: Dunn's Inc.

Address: 303 N. Maddox Way

City, State, Zip: Visalia, CA 93292

Quantity of Identical Units	Equipment/Process	Fee Schedule	Permit Application Fee	=	Total
1	Hot mix asphalt plant	--	\$87.00	=	\$87.00
		--		=	

Total Permit Processing Fee Due \$87.00

Comments:

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## **PERMIT TO CONSTRUCT FOR A HOT MIX ASPHALT PLANT**

**Prepared For:**

Dunn's Inc.  
303 N. Ben Maddox Way  
Visalia, CA 93292

Project No.: DUNN-19-8904  
Contact: Diana Nguyen  
Date: September 6, 2019

**Alta Environmental an NV5 Company**  
3777 Long Beach Boulevard Annex Building  
Long Beach, CA 90807 United States of America  
T: 562-495-5777 F: 562-495-5877  
[www.altaenviron.com](http://www.altaenviron.com)



## **SUMMARY**

Dunn's Equipment, Inc. (Dunn's Inc.) is requesting a Permit to Construct a hot mix asphalt (HMA) plant. This plant will be powered by electric grid power. This application will show that the emissions are less than the District's Rule 2201 (4.5.3) annual thresholds therefore exempting the plant from offsets. The plant emissions are below the District's Rule 2201 (5.4) daily public notice thresholds for all pollutants.

This plant will be equipped with the Best Available Control Technology (BACT) in compliance with the District's New Source Review Regulation.



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Figure 1	—	Flow Diagram
"A"	—	AP-42 Emission Factors (Table 11.1-3 and Table 11.19.2-2)
"B"	—	SCAQMD Emission Factors (Criteria and Toxic Pollutants EF Tables and HHV Table)
"C"	—	NO <sub>x</sub> and CO SJVAPCD Emission Limits Conversion
"D"	—	EPA TANKS Program Output for Asphalt Oil Tank



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## **PART I – PROJECT DESCRIPTION**

### **A. Business Background**

1. Name  
Dunn's Inc.
2. Owner  
Dunn's Inc.  
303 N. Ben Maddox Way  
Visalia, CA 93292
3. Contact  
Mark Dunn  
(559) 734-5373
4. Entitlement  
Equipment to be owned and operated by  
Dunn's Inc.
5. Business Description  
Hot Mix Asphalt Plant

### **B. Type of Application**

Permit to Construct

### **C. Description of Facility**

1. Location  
7763 Avenue 280  
Visalia, CA 93277
2. General Purpose of Facility  

The proposed facility will produce hot mix asphalt (HMA) for wholesale delivery to the construction industries for use in paving streets and highways.





## **D. Description of Process**

### **1. General Description of each Process Line**

#### **a.) Hot Mix Asphalt Plant**

The facility will produce HMA to be used in paving of streets and highways.

Aggregate (which can include reclaimed asphalt pavement [RAP]) is mixed with liquid asphalt cement, which is heated and mixed in measured quantities to produce HMA. HMA is loaded into transport trucks for use at construction sites.

### **2. Flow Diagram**

Refer to figure 1. This diagram illustrates the HMA plant and shows the interaction between process lines, transfer of materials, and basic control equipment.

### **3. Maximum Production Schedule**

The HMA plant will produce a maximum of 481 tons of asphalt per day and 150,000 tons per year.



#### 4. Equipment List and Horsepower Schedule

(Refer to Flow Diagram Figure 1)

Item	Description	HP
1-5	10' × 14' Cold Feed Bins	--
6-10	30" × 7' 6" Belt Feeders	7.5 Each
11	30" Collecting Conveyor	15
12	5' × 10' Vibrating Screen	7.5
13	30" × 70' Belt Conveyor	20
14	Gencor Ultradrums and Equinox – 135 Burner (135 mmBTU/hour)/WFG and Ultrafoam 6 × 2 Warm Mix System	105
15	Drag Slat Conveyor	100
16	200 Ton Asphalt Silos w /Batcher	--
18-19	10' × 15' RAP Hoppers	--
20-21	Feed Conveyor	15
22	30" × 52' Collecting Conveyor	10
23	4' × 10' Screen	5
24	24" × 70' RAP Belt Conveyor	10
25	2.0 mmBTU/hour Hot Oil Heater Indirect Fired, Powerflame NOVA #2	15
26	30,000 Gallon Asphalt Cement Tank	--
27	30,000 Gallon Split (15K/15K) Asphalt Cement Tank	--
28	Baghouse Model CFR-182 Rated at 89,217 CFM w/18,134 Sq. Ft. of Cloth	250
29	3 Screw Conveyors (Internal to Baghouse)	22.5
30	1 Screw Conveyor, Cross	7.50
31	600 Gallon 0.1 Calibration Tank	--
32	200 Ton Asphalt Silos w /Batcher	--

#### E. Control Equipment

##### 1. Particulate Matter Control

The District New Source Review Regulation specifies that new equipment will be in compliance with the BACT guidelines.

Material will be kept sufficiently moist to control particulate via the use of water spray.



## **PART II – REGULATORY ANALYSIS**

### **A. Analysis of Emissions Restrictions**

District prohibitory rules limit the emissions of various pollutants from all sources in the District. The specific rules that apply to the proposed project are discussed below. The limitations in these rules will be met through the application of BACT. BACT requirements are discussed in detail in Section "B" of this part of the application.

#### **1. Fugitive Dust**

No person shall perform any outdoor handling, storage and transport of bulk materials unless the appropriate control measures are sufficiently implemented to limit visible dust emissions to 20% opacity as set forth in Rule 8031 and Table 8031-1. Compliance with the rule will be achieved through the use of water.

#### **2. Rule 4101 Visible Emissions**

The opacity of visible emissions will be limited by Rule 4101 not to exceed No. 1 of the United States Bureau of Mines Ringelmann Chart, or to the equivalent opacity. Ringelmann No. 1 corresponds to 20% opacity. Since BACT will limit opacity of 5%, compliance with Rule 4101 will be achieved.

#### **3. Rule 4001 New Source Performance Standards (NSPS)**

This facility is subject to the requirements of NSPS Subpart OOO, Nonmetallic Mineral Processing Plants. This facility will demonstrate compliance with the performance standards of Subpart OOO within 60 days of reaching maximum production, but no later than 180 days after start-up.

The affected facilities will be manufactured after April 22, 2008, therefore are subject to 7% opacity for belts and screens and 10% opacity for belt conveyors.





4. Rule 4102 Public Nuisance

No person shall discharge from any source whatsoever such quantities of air contaminants or other materials that cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger to comfort, repose, health or safety of any such person or the public, or which cause or have a natural tendency to cause injury or damage to business or property.

This operation is not expected to produce a public nuisance or annoyance.

5. Federally-Mandated Operation Permit

Since this facility's potential emissions do not exceed any major source thresholds per year per Rule 2201, this facility is not a major source, and Rule 2520 does not apply (See Part III (D) of the application).

6. Rule 4641 Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations

The current Rule 4641 was implemented December 17, 1992 and has remained unchanged since that time. To comply with this rule the asphalt oil manufactures have developed and only produce materials which are compliant with this rule. Therefore, this site will use binders that are compliant with Rule 4641.

7. Rule 4309 Burners

Rule 4309 requires asphalt plant burners to achieve a NO<sub>x</sub> PPM of 4.3 @ 19% O<sub>2</sub> and a CO PPM of 42 @ 19% O<sub>2</sub>. Equipment purchased for this facility will be selected to meet these applicable emission limits.





**B. Analysis of New Source Review Requirements/BACT**

In accordance with the requirements of Rule 2201.4.1, (BACT), Dunn's Inc has identified the BACT measures that apply to the facility.

1. Aggregate Piles
2. Transfer Points

Water sprays will be used to minimize particulate emissions from transfer points between conveyors and other loading operations when necessary.

**C. Offsets**

Since this facility is below the offset threshold as in Rule 2201, Section 4.5.3, no offsets will be required (See Part III (C) of the application).

**D. Public Notification**

None of the daily emissions from criteria pollutants will be above 100 pounds per day. Therefore, public notice will not be necessary according to Rule 2201, Section 5.4 (See Part III (C) of the application).



### PART III – ESTIMATED EMISSIONS

#### A. Emissions Estimates for Hot Mix Asphalt Plant

The emissions estimates for the Hot Mix Asphalt Plant were calculated below. The emissions factors were taken from EPA AP-42 Table 11.1-3 and 11.19.2-2 (Refer to Attachment "A").

The utilization of RAP corresponds to a reduction in like output of virgin aggregate being fed into the plant. As a result, production has been considered for only the cold feed.

##### Cold Feed

Emission Point	Description	Throughput (tons/hour)	×	PM <sub>10</sub> Emissions Factor (lbs/ton)	=	PM <sub>10</sub> (lbs/hour)
1	Loader to Aggregate Receiving Hopper	500		-		-
2	Belt Feeder to Collecting Conveyer	200		4.60E-05		2.76E-03
3	Collecting Conveyer to Screen	200		4.60E-05		2.76E-03
4	Screen	500		0.00074		4.45E-02
5	Screen to Belt Conveyer	500		4.60E-05		2.76E-03
6	Belt Conveyer to Dryer	500		4.60E-05		2.76E-03
		Total PM <sub>10</sub> Emissions (lb/hour)				0.056
		Aggregate Throughput (tons/hour) ÷				60.1
		Plant PM <sub>10</sub> Emission Factor (lbs/ton)				9.24E-04

		PM <sub>10</sub> Emissions Rate (lbs/ton)	=	PM <sub>10</sub> Emissions
Aggregate Throughput	×			
480.8 tons/day		9.24E-04		0.44 lbs/day
150,000 tons/year		9.24E-04		138 lbs/year





**A. Emissions Estimates for Hot Mix Asphalt Plant (*Continued*)**

*Dryer*

Pollutant	Production (tons/year)	×	Emissions Factor (lbs/ton)	=	PM <sub>10</sub> Max Emissions (lbs/year)	=	PM <sub>10</sub> (lbs/day)
PM <sub>10</sub>	150,000		0.023		3450		11.1

AP-42 11.1 does not provide additional EFs for criteria and toxic pollutants for propane dryers; therefore, default South Coast Air Quality Management District (SCAQMD) EFs are used as follows (Refer to Attachment "B").

*Criteria Pollutants*

Pollutant	Hot Oil Heat Requirement (mmBTU/hr)	/	Propane Heating Value (mmBTU/mgal)	×	EF (lbs/mgal)	=	Hourly Emissions (lbs/hr)	×	Operating Schedule (hours/year)	=	Emissions (lbs/year)	=	Emissions (lbs/day)
VOC	135		94		0.26		0.37		4368		1.63E+03		5.2
SO <sub>x</sub>	135		94		4.6		6.61		4368		2.89E+04		92.5
NO <sub>x</sub>	135		94		0.49 <sup>[1]</sup>		0.70		4368		3.07E+03		9.9
CO	135		94		2.92 <sup>[1]</sup>		4.19		4368		1.83E+04		58.7

[1] Emission factors for NO<sub>x</sub> and CO are based on SJVAPCD emission limits. See conversions in Attachment "C".





**A. Emissions Estimates for Hot Mix Asphalt Plant (*Continued*)**

*Toxic Pollutants*

Pollutant	Hot Oil Heat Requirement (mmBTU/hr)	Propane Heating Value (mmBTU/mgal)	EF (lbs/mgal)	Hourly Emissions (lbs/hr)	Operating Schedule (hours/year)	Emissions (lbs/year)	Emissions (lbs/day)
Benzene	135	94	1.50E-04	2.15E-04	4368	9.41E-01	3.02E-03
Formaldehyde	135	94	3.20E-04	4.60E-04	4368	2.01E+00	6.43E-03
PAHs	135	94	1.00E-05	1.44E-05	4368	6.27E-02	2.01E-04
Naphthalene	135	94	3.00E-05	4.31E-05	4368	1.88E-01	6.03E-04
Acetaldehyde	135	94	8.00E-05	1.15E-04	4368	5.02E-01	1.61E-03
Acrolein	135	94	7.00E-05	1.01E-04	4368	4.39E-01	1.41E-03
Ammonia	135	94	3.00E-01	4.31E-01	4368	1.88E+03	6.03E+00
Ethyl benzene	135	94	1.80E-04	2.59E-04	4368	1.13E+00	3.62E-03
Hexane	135	94	1.20E-04	1.72E-04	4368	7.53E-01	2.41E-03
Toluene	135	94	6.90E-04	9.91E-04	4368	4.33E+00	1.39E-02
Xylene	135	94	5.10E-04	7.32E-04	4368	3.20E+00	1.03E-02





# **A. Emissions Estimates for Hot Mix Asphalt Plant (*Continued*)**

## Oil Heater

### *Criteria Pollutants*

Pollutant	Hot Oil Heat Requirement (mmBTU/hr) /	Propane Heating Value (mmBTU/mgal) ×	SCAQMD EF (lbs/mgal) =	Emission Factor (lbs/hr) ×	Operating Schedule (hours/year) =	Emissions (lbs/year) =	Emissions (lbs/day)
PM <sub>10</sub>	2	94	0.28	0.006	4368	26.0	0.08
VOC	2	94	0.26	0.006	4368	24.2	0.08
SO <sub>x</sub>	2	94	4.6	0.098	4368	427.5	1.37
NO <sub>x</sub>	2	94	0.49 <sup>[1]</sup>	0.010	4368	45.5	0.15
CO	2	94	2.92 <sup>[1]</sup>	0.062	4368	271.4	0.87

[1] Emission factors for NO<sub>x</sub> and CO are based on SJVAPCD emission limits. See conversions in Attachment "C".

### *Toxic Pollutants*

Pollutant	Hot Oil Heat Requirement (mmBTU/hr) /	Propane Heating Value (mmBTU/mgal) ×	SCAQMD EF (lbs/mgal) =	Emission Factor (lbs/hr) ×	Operating Schedule (hours/year) =	Emissions (lbs/year) =	Emissions (lbs/day)
Benzene	2	94	7.10E-04	1.51E-05	4368	6.60E-02	2.11E-04
Formaldehyde	2	94	1.51E-03	3.21E-05	4368	1.40E-01	4.50E-04
PAHs	2	94	1.00E-05	2.13E-07	4368	9.29E-04	2.98E-06
Naphthalene	2	94	3.00E-05	6.38E-07	4368	2.79E-03	8.94E-06
Acetaldehyde	2	94	3.80E-04	8.09E-06	4368	3.53E-02	1.13E-04
Acrolein	2	94	2.40E-04	5.11E-06	4368	2.23E-02	7.15E-05
Ammonia	2	94	0.3	6.38E-03	4368	2.79E+01	8.94E-02
Ethyl benzene	2	94	8.40E-04	1.79E-05	4368	7.81E-02	2.50E-04
Hexane	2	94	5.60E-04	1.19E-05	4368	5.20E-02	1.67E-04
Toluene	2	94	3.25E-03	6.91E-05	4368	3.02E-01	9.68E-04
Xylene	2	94	2.41E-03	5.13E-05	4368	2.24E-01	7.18E-04





**A. Emissions Estimates for Hot Mix Asphalt Plant (*Continued*)**

VOC Emissions for Asphalt Storage Tank

Emissions from the two 30,000-gallon asphalt storage tanks were calculated using the procedures described in EPA AP-42, Section 7.1, Organic Liquid Storage Tanks and by utilizing EPA TANKS 4.0.9d. EPA TANKS software was used to determine the annual VOC emissions from working losses and breathing losses. The asphalt tanks are equipped with a vent condenser which has a control efficiency of 95% on blue smoke emissions based on EPA AP-42, Section 7.1, Organic Liquid Storage Tanks, Fixed Roof. This control efficiency was added into the storage tank emissions. The following parameters were used in the program (Refer to Attachment "D" for TANKS output).

EPA Tank Parameters (Baseline)	
Tank Diameter:	10' 4"
Tank Length:	48 Feet
Total Asphalt Oil Throughput per tank:	750,000 Gallons Per Year
Total Facility Asphalt Oil:	1,500,000 Gallons Per Year
Storage Volume:	30,000 Gallons

The following are baseline VOC emission estimates from the TANKS program.

$$\begin{aligned}
 \text{VOC (lbs/year/tank)} &= 511.14 \text{ lbs/year} \div 2,000 \text{ lbs/year} \\
 &0.256 \text{ tons/year/tank} \times (1-0.95 \text{ CF}) = \\
 &0.013 \text{ tons/year/tank} \\
 \\
 \text{Total VOCs (lbs/year)} &= 511.14 \text{ lbs/year} \times 2 \text{ tanks} \times \\
 &(1-0.95 \text{ CF}) \\
 &51.11 \text{ lbs/year} \div 2,000 \text{ lbs/year} \\
 &0.026 \text{ tons/year} \\
 \\
 \text{VOC (lbs/day/tank)} &= 511.14 \text{ lbs/year} \div 365 \text{ days/year} \times \\
 &(1-0.95 \text{ CF}) \\
 &0.070 \text{ lbs/day/tank} \\
 \\
 \text{Total VOCs (lbs/day)} &= 0.070 \text{ lbs/day} \times 2 \text{ tanks} \\
 &0.140 \text{ lbs/day}
 \end{aligned}$$





## B. Stockpiles

There will be a total of 0.5 acres of stockpile area. In accordance with San Joaquin Valley aggregate plant processing policy SSP-1610-10, 80% control will be used for water.

Total (Acres)	×	PM <sub>10</sub> Emission Factor (lb/acre-day)	×	Control Factor	=	PM <sub>10</sub> Daily Emissions (lb/day)
0.5		5.27		0.2		0.527
Daily PM <sub>10</sub> Emissions (lb/day)	×	Operating Schedule (days/yr)	=	PM <sub>10</sub> Yearly Emissions (lb/yr)	=	PM <sub>10</sub> Daily Emissions (tons/yr)
0.527		365		192		0.096

## C. Facility Emissions Summary/Emissions Rule Evaluation

Pollutant	Aggregate Emissions (lbs/day)	+	Dryer + Oil Heater Emissions (lbs/day)	+	Stockpile (lbs/day)	=	Overall Emissions (lbs/day)	≤	Rule 2201 5.4 Public Notice Limit (lbs/day)
PM <sub>10</sub>	0.44		11.2		0.53		12.2	<	100

Pollutant	Aggregate Emissions (lbs/year)	+	Dryer + Oil Heater Emissions (lbs/year)	+	Stockpile (lbs/year)	=	Overall Emissions (lbs/year)	=	Overall Emissions (tons/year)	≤	Rule 2201 4.5.3 Offset Limits (tons/year)
PM <sub>10</sub>	138		3,476		192		3,806		1.90	<	14.6

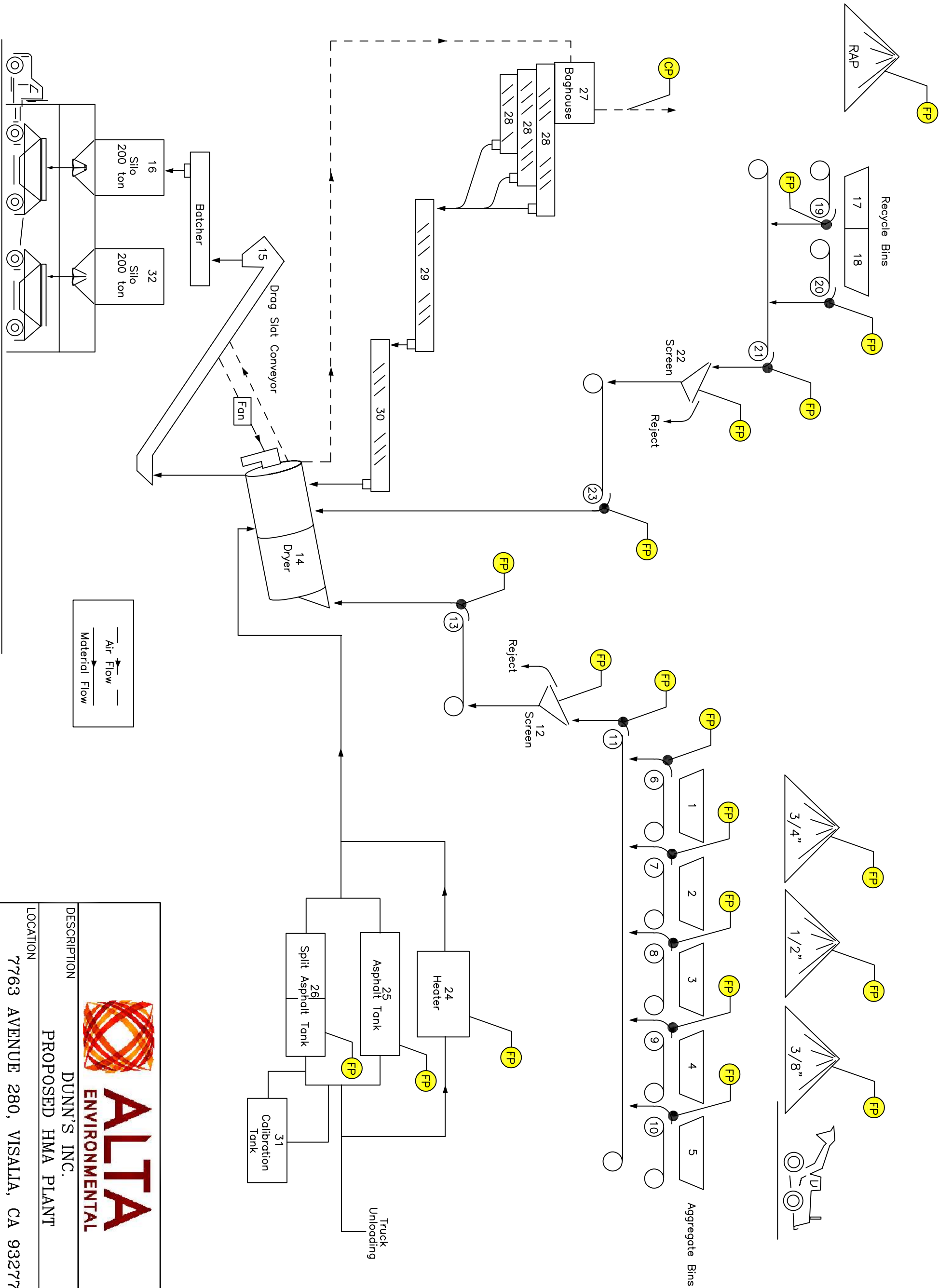


## **PART IV – ANALYSIS OF PERMIT RESTRICTIONS**

Anticipated production and fuel limits are listed below:

Hot Mix Asphalt production through the plant will be limited to 481 tons per day and 150,000 tons per year.





DESCRIPTION DUNN'S INC.

PROPOSED HMA PLANT

LOCATION

7763 AVENUE 280, VISALIA, CA 93277

JOB NO.

DUNN-19-8904

DATE

9/3/2019

FIGURE NO.

FIGURE 1





## **ATTACHMENT "A"**

### **AP-42 EMISSION FACTORS (TABLES 11.1-3 AND 11.19.2-2)**



Table 11.1-3. PARTICULATE MATTER EMISSION FACTORS FOR DRUM MIX HOT MIX ASPHALT PLANTS<sup>a</sup>

Process	Filterable PM				Condensable PM <sup>b</sup>				Total PM			
	PM <sup>c</sup>	EMISSION FACTOR RATING	PM-10 <sup>d</sup>	EMISSION FACTOR RATING	Inorganic	EMISSION FACTOR RATING	Organic	EMISSION FACTOR RATING	PM <sup>e</sup>	EMISSION FACTOR RATING	PM-10 <sup>f</sup>	EMISSION FACTOR RATING
Dryer <sup>g</sup> (SCC 3-05-002-05,-55 to -63)												
Uncontrolled	28 <sup>h</sup>	D	6.4	D	0.0074 <sup>j</sup>	E	0.058 <sup>k</sup>	E	28	D	6.5	D
Venturi or wet scrubber	0.026 <sup>m</sup>	A	ND	NA	0.0074 <sup>n</sup>	A	0.012 <sup>p</sup>	A	0.045	A	ND	NA
Fabric filter	0.014 <sup>q</sup>	A	0.0039	C	0.0074 <sup>n</sup>	A	0.012 <sup>p</sup>	A	0.033	A	0.023	C

<sup>a</sup> Factors are lb/ton of product. SCC = Source Classification Code. ND = no data. NA = not applicable. To convert from lb/ton to kg/Mg, multiply by 0.5.

<sup>b</sup> Condensable PM is that PM collected using an EPA Method 202, Method 5 (analysis of “back-half” or impingers), or equivalent sampling train.

<sup>c</sup> Filterable PM is that PM collected on or before the filter of an EPA Method 5 (or equivalent) sampling train.

<sup>d</sup> Particle size data from Reference 23 were used in conjunction with the filterable PM emission factors shown.

<sup>e</sup> Total PM is the sum of filterable PM, condensable inorganic PM, and condensable organic PM.

<sup>f</sup> Total PM-10 is the sum of filterable PM-10, condensable inorganic PM, and condensable organic PM.

<sup>g</sup> Drum mix dryer fired with natural gas, propane, fuel oil, and waste oil. The data indicate that fuel type does not significantly effect PM emissions.

<sup>h</sup> References 31, 36-38, 340.

<sup>j</sup> Because no data are available for uncontrolled condensable inorganic PM, the emission factor is assumed to be equal to the maximum controlled condensable inorganic PM emission factor.

<sup>k</sup> References 36-37.

<sup>m</sup> Reference 1, Table 4-14. Average of data from 36 facilities. Range: 0.0036 to 0.097 lb/ton. Median: 0.020 lb/ton. Standard deviation: 0.022 lb/ton.

<sup>n</sup> Reference 1, Table 4-14. Average of data from 30 facilities. Range: 0.0012 to 0.027 lb/ton. Median: 0.0051 lb/ton. Standard deviation: 0.0063 lb/ton.

<sup>p</sup> Reference 1, Table 4-14. Average of data from 41 facilities. Range: 0.00035 to 0.074 lb/ton. Median: 0.0046 lb/ton. Standard deviation: 0.016 lb/ton.

<sup>q</sup> Reference 1, Table 4-14. Average of data from 155 facilities. Range: 0.00089 to 0.14 lb/ton. Median: 0.010 lb/ton. Standard deviation: 0.017 lb/ton.



Table 11.19.2-2 (English Units). EMISSION FACTORS FOR CRUSHED STONE PROCESSING OPERATIONS (lb/Ton)<sup>a</sup>

Source <sup>b</sup>	Total Particulate Matter <sup>r,s</sup>	EMISSION FACTOR RATING	Total PM-10	EMISSION FACTOR RATING	Total PM-2.5	EMISSION FACTOR RATING
Primary Crushing (SCC 3-05-020-01)	ND		ND <sup>n</sup>		ND <sup>n</sup>	
Primary Crushing (controlled) (SCC 3-05-020-01)	ND		ND <sup>n</sup>		ND <sup>n</sup>	
Secondary Crushing (SCC 3-05-020-02)	ND		ND <sup>n</sup>		ND <sup>n</sup>	
Secondary Crushing (controlled) (SCC 3-05-020-02)	ND		ND <sup>n</sup>		ND <sup>n</sup>	
Tertiary Crushing (SCC 3-050030-03)	0.0054 <sup>d</sup>	E	0.0024 <sup>o</sup>	C	ND <sup>n</sup>	
Tertiary Crushing (controlled) (SCC 3-05-020-03)	0.0012 <sup>d</sup>	E	0.00054 <sup>p</sup>	C	0.00010 <sup>q</sup>	E
Fines Crushing (SCC 3-05-020-05)	0.0390 <sup>e</sup>	E	0.0150 <sup>e</sup>	E	ND	
Fines Crushing (controlled) (SCC 3-05-020-05)	0.0030 <sup>f</sup>	E	0.0012 <sup>f</sup>	E	0.000070 <sup>q</sup>	E
Screening (SCC 3-05-020-02, 03)	0.025 <sup>c</sup>	E	0.0087 <sup>l</sup>	C	ND	
Screening (controlled) (SCC 3-05-020-02, 03)	0.0022 <sup>d</sup>	E	0.00074 <sup>m</sup>	C	0.000050 <sup>q</sup>	E
Fines Screening (SCC 3-05-020-21)	0.30 <sup>g</sup>	E	0.072 <sup>g</sup>	E	ND	
Fines Screening (controlled) (SCC 3-05-020-21)	0.0036 <sup>g</sup>	E	0.0022 <sup>g</sup>	E	ND	
Conveyor Transfer Point (SCC 3-05-020-06)	0.0030 <sup>h</sup>	E	0.00110 <sup>h</sup>	D	ND	
Conveyor Transfer Point (controlled) (SCC 3-05-020-06)	0.00014 <sup>i</sup>	E	4.6 x 10 <sup>-5i</sup>	D	1.3 x 10 <sup>-5q</sup>	E
Wet Drilling - Unfragmented Stone (SCC 3-05-020-10)	ND		8.0 x 10 <sup>-5j</sup>	E	ND	
Truck Unloading - Fragmented Stone (SCC 3-05-020-31)	ND		1.6 x 10 <sup>-5j</sup>	E	ND	
Truck Loading - Conveyor, crushed stone (SCC 3-05-020-32)	ND		0.00010 <sup>k</sup>	E	ND	

a. Emission factors represent uncontrolled emissions unless noted. Emission factors in lb/Ton of material of throughput. SCC = Source Classification Code. ND = No data.

b. Controlled sources (with wet suppression) are those that are part of the processing plant that employs current wet suppression technology similar to the study group. The moisture content of the study group without wet suppression systems operating (uncontrolled) ranged from 0.21 to 1.3 percent, and the same facilities operating wet suppression systems (controlled) ranged from 0.55 to 2.88 percent. Due to carry over of the small amount of moisture required, it has been shown that each source, with the exception of crushers, does not need to employ direct water sprays. Although the moisture content was the only variable measured, other process features may have as much influence on emissions from a given source. Visual observations from each source under normal operating conditions are probably the best indicator of which emission factor is most appropriate. Plants that employ substandard control measures as indicated by visual observations should use the uncontrolled factor with an appropriate control efficiency that best reflects the effectiveness of the controls employed.

c. References 1, 3, 7, and 8

d. References 3, 7, and 8



- e. Reference 4
- f. References 4 and 15
- g. Reference 4
- h. References 5 and 6
- i. References 5, 6, and 15
- j. Reference 11
- k. Reference 12
- l. References 1, 3, 7, and 8
- m. References 1, 3, 7, 8, and 15
- n. No data available, but emission factors for PM-10 for tertiary crushers can be used as an upper limit for primary or secondary crushing
- o. References 2, 3, 7, 8
- p. References 2, 3, 7, 8, and 15
- q. Reference 15
- r. PM emission factors are presented based on PM-100 data in the Background Support Document for Section 11.19.2
- s. Emission factors for PM-30 and PM-50 are available in Figures 11.19.2-3 through 11.19.2-6.

Note: Truck Unloading - Conveyor, crushed stone (SCC 3-05-020-32) was corrected to Truck Loading - Conveyor, crushed stone (SCC 3-05-020-32). October 1, 2010.

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## **ATTACHMENT "B"**

### **SCAQMD EMISSION FACTORS (CRITERIA AND TOXIC POLLUTANTS EF TABLES AND HHV TABLE)**



**APPENDIX A - DEFAULT EMISSION FACTORS FOR COMBUSTION EQUIPMENT (CRITERIA AND TOXICS)**

**Table 1**  
**Default Emission Factors for External Combustion Equipment for Forms B1 and B1U (for all sizes)**

Fuel Type (fuel unit)	Organic Gases (lb/unit)	Methane (lb/unit)	Nitrogen Oxides (lb/unit)	Sulfur Oxides (lb/unit)	Carbon Monoxide (lb/unit)	Particulate Matter (lb/unit)
Natural Gas (mmscf) / Boilers Only	5.50	2.30	100.00	0.60	84.00	7.60
Natural Gas (mmscf) / Other Equipment	7.00	2.30	130.00	0.60	35.00	7.50
LPG, Propane, Butane (1000 gal.)	0.26	0.28	12.80	4.60	3.20	0.28
Diesel/Distillate Oil (1000 gal.)	1.32	0.05	20.00	7.10	5.00	2.00

**Table 2**  
**Default Emission Factors for Internal Combustion Engines (ICE) for Forms B2 and B2U**

Fuel Type (fuel unit)/Engine Type	Organic Gases (lb/unit)	Methane (lb/unit)	Nitrogen Oxides (lb/unit)	Sulfur Oxides (lb/unit)	Carbon Monoxide (lb/unit)	Particulate Matter (lb/unit)
Natural gas (mmscf)/2 Stroke (Lean-Burn) ICE	122.00	1,479.00	3233.00	0.60	394.00	39.00
Natural gas (mmscf)/4 Stroke (Lean-Burn) ICE*	120.00	1,275.00	4162.00	0.60	323.00	----
Natural gas (mmscf)/4 Stroke (Rich-Burn) ICE	30.00	235.00	2254.00	0.60	3794.00	10.00
LPG, Propane, Butane (1000 gal.)/All ICEs	83.00	----	139.00	0.35	129.00	5.00
Diesel/Distillate Oil (1000 gal.)/All ICEs	37.50	----	469.00	7.10	102.00	33.50
Gasoline (1000 gal.)/All ICEs	206.00	----	102.00	5.30	3,940.00	6.50

\* If engine specification is not available, assume 4 Stroke (Lean-Burn) ICE.

**Table 3**  
**Rule-Based Emission Factors for Combustion Equipment for Forms B1 and B2**  
**(For Equipment in Compliance with Rule Limits)**

Fuel Type (fuel unit)	Nitrogen Oxides (lb/fuel unit)
<b>A) E.F. based on Rule 1146 for Form B1</b>	
Natural Gas (mmscf)	49.80
LPG, Propane, Butane (1000 gal.)	4.50
<b>B) E.F. based on Rule 1146.1/1146.2 for Form B1</b>	
Natural Gas (mmscf)	37.40
LPG, Propane, Butane (1000 gal.)	3.40
<b>C) E.F. based on Rule 1110.2 for Form B2 (Stationary ICEs only)</b>	
Natural gas (mmscf)	238.70
LPG, Propane, Butane (1000 gallons)	15.30
Diesel/Distillate Oil (1000 gallons)	33.40
Gasoline (1000 gallons)	21.50



**Table B-3: DEFAULT EF FOR LPG, BUTANE, OR PROPANE COMBUSTION (LB / 1000 GAL)**

**SOURCE: External Combustion Equipment (Boiler, Oven, Dryer, Furnace, Heater, Afterburner)**

TAC Code	POLLUTANT	CAS NO.	<10 MMBTU/HR	10-100 MMBTU/HR	>100 MMBTU/HR
2	Benzene	71432	0.00071	0.00051	0.00015
12	Formaldehyde	50000	0.00151	0.00109	0.00032
19	PAHs (excluding Naphthalene)	1151	0.00001	0.00001	0.00001
19	Naphthalene	91203	0.00003	0.00003	0.00003
29	Acetaldehyde	75070	0.00038	0.00028	0.00008
30	Acrolein	107028	0.00024	0.00024	0.00007
32	Ammonia	7664417	0.30000	0.30000	0.30000
40	Ethyl benzene	100414	0.00084	0.00061	0.00018
44	Hexane	110543	0.00056	0.00041	0.00012
68	Toluene	108883	0.00325	0.00235	0.00069
70	Xylene	1330207	0.00241	0.00175	0.00051

**SOURCE: Turbine**

TAC Code	POLLUTANT	CAS NO.	ALL SIZES
2	Benzene	71432	0.00109
4	1,3-Butadiene	106990	0.0000389
12	Formaldehyde	50000	0.0643
19	Naphthalene	91203	0.000118
19	PAHs (excluding Naphthalene)	1151	0.0000815
29	Acetaldehyde	75070	0.00362
30	Acrolein	107028	0.000579
32	Ammonia	7664417	0.30000
40	Ethylbenzene	100414	0.00290
62	Propylene oxide	75569	0.00262
68	Toluene	108883	0.0118
70	Xylene	1330207	0.00579

(Continued)



**Table 3-D**

**EMISSION FEE BILLING NO<sub>x</sub> FACTORS**

<b>BASIC EQUIPMENT</b>	<b>TYPE OF FUEL</b>	<b>EMISSION FACTOR</b>	<b>HIGHER HEATING VALUE OF FUEL</b>
Boilers, Ovens, Heaters, Furnaces, Kilns, Calciners, Dryers	Natural Gas	130 lb/mmscf	1050 mmBtu/mmscf
	Refinery Gas	161 lb/mmscf	1150 mmBtu/mmscf
	LPG, Propane, Butane	12.8 lb/mgal	94 mmBtu/mgal
	Diesel Light Dist. (0.05% S)	19 lb/mgal	137 mmBtu/mgal
	Fuel Oil (0.1% S)	20 lb/mgal	150 mmBtu/mgal
	Fuel Oil (0.25% S)	60 lb/mgal	150 mmBtu/mgal
Internal Combustion Engines	Fuel Oil (0.5% S)	55 lb/mgal	150 mmBtu/mgal
	Natural Gas	3400 lb/mmscf	1050 mmBtu/mmscf
	LPG, Propane, Butane	139 lb/mgal	94 mmBtu/mgal
	Gasoline	102 lb/mgal	130 mmBtu/mgal
Gas Turbines	Diesel Oil	469 lb/mgal	137 mmBtu/mgal
	Natural Gas	413 lb/mmscf	1050 mmBtu/mmscf
	Diesel Oil	67.8 lb/mgal	137 mmBtu/mgal





## **ATTACHMENT "C"**

### **NO<sub>x</sub> AND CO SJVACPD EMISSION LIMITS CONVERSION**



## Dunn Dryer Emission Factor Calculations

Calculation Using EPA Method 19 Equation 19-1	Equation 19-1: $E = C_d * F_d * (20.9 - (20.9 - \%O_{2d}))$
---	---

Propane NOx Determination			
Variable	Value	Units	Reference
$CF_{NOx}$	1.194E-07	lb/scf/ppmv	Conversion factor for ppm NOx to lb/scf (from Table 19-1)
$PPMV_{O_2}$	4.3	ppm	Emission Limit for NOx @ 3% O2 From Rule
$C_{d-NOx}$	5.134E-07	lb/scf	Pollutant Concentration on Dry Basis (NOx)
$\%O_{2d}$	3	%	Oxygen Correction Value for Oven from Rule
$F_d$	8,710	dscf/mmBtu	Dry F Factor for Propane (from Table 19-2)
<b>E</b>	<b>0.0052</b>	<b>lb/mmBtu</b>	<b>Emission Rate per heat input, converted from concentration limit</b>
V	94	mmBtu/mgal	Higher Heating Value for Propane
<b>R<sub>c</sub></b>	<b>0.49</b>	<b>lb/mgal</b>	<b>Emission Rate of NO<sub>x</sub> per fuel rate, converted from concentration limit</b>

CO Conversion Factor Determination			
Variable	Value	Units	Reference
$MW_{NO_2}$	46.006		Molecular weight of NOx
$MW_{CO}$	28.010		Molecular weight of CO
$MWRatio_{CO/NO_2}$	0.60883		Ratio
$CF_{NOx}$	1.194E-07	lb/scf/ppmv	Conversion factor for ppm NOx to lb/scf (from Table 19-1)
$CF_{CO}$	7.269E-08	lb/scf/ppmv	Conversion factor for CO adjusted for Molecular Weight

Propane CO Determination			
Variable	Value	Units	Reference
$CF_{NOx}$	7.269E-08	lb/scf/ppmv	Conversion factor for CO adjusted for Molecular Weight
$PPMV_{O_2}$	42	ppm	Emission Limit for CO @ 3% O2 From Rule
$C_{d-CO}$	3.053E-06	lb/scf	Pollutant Concentration on Dry Basis (NOx)
$\%O_{2d}$	3	%	Oxygen Correction Value for Oven from Rule
$F_d$	8,710	dscf/mmBtu	Dry F Factor for Propane (from Table 19-2)
<b>E</b>	<b>0.0311</b>	<b>lb/mmBtu</b>	<b>Emission Rate per heat input, converted from concentration limit</b>
V	94	mmBtu/mgal	Higher Heating Value for Propane
<b>R<sub>c</sub></b>	<b>2.92</b>	<b>lb/mgal</b>	<b>Emission Rate for NO<sub>x</sub> converted from concentration limit</b>





## **ATTACHMENT "D"**

### **EPA TANKS PROGRAM OUTPUT FOR ASPHALT OIL TANK**



**TANKS 4.0.9d**  
**Emissions Report - Detail Format**  
**Tank Identification and Physical Characteristics**

**Identification**

User Identification:	Asphalt Tank
City:	
State:	California
Company:	
Type of Tank:	Horizontal Tank
Description:	30,000 gallon tank

**Tank Dimensions**

Shell Length (ft):		48.00
Diameter (ft):		10.25
Volume (gallons):		30,000.00
Turnovers:		25.00
Net Throughput(gal/yr):		750,000.00
Is Tank Heated (y/n):	Y	
Is Tank Underground (y/n):	N	

**Paint Characteristics**

Shell Color/Shade:	White/White
Shell Condition	Good

**Breather Vent Settings**

Vacuum Settings (psig):	0.00
Pressure Settings (psig)	0.00

Meteorological Data used in Emissions Calculations: Bakersfield, California (Avg Atmospheric Pressure = 14.47 psia)



**TANKS 4.0.9d**  
**Emissions Report - Detail Format**  
**Liquid Contents of Storage Tank**

**Asphalt Tank - Horizontal Tank**  
**, California**

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F)			Liquid Bulk Temp (deg F)	Vapor Pressure (psia)			Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
		Avg.	Min.	Max.		Avg.	Min.	Max.					
Asphalt Oil	All	350.00	300.00	400.00	400.00	0.1805	0.0532	0.5309	84.0000			1,000.00	
Benzene						139.4535	82.3153	220.5297	78.1100	0.0001	0.0036	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Formaldehyde						0.0083	0.0016	0.0296	30.0300	0.0012	0.0000	30.03	Option 2: A=4.28176, B=959.43, C=29.758
Naphthalene						5.3638	2.2954	11.2236	128.2000	0.0010	0.0020	128.20	Option 2: A=7.3729, B=1968.36, C=222.61
Unidentified Components						0.1796	0.1789	0.1789	83.9653	0.9977	0.9944	1,000.26	



**TANKS 4.0.9d**  
**Emissions Report - Detail Format**  
**Detail Calculations (AP-42)**

**Asphalt Tank - Horizontal Tank**  
**, California**

<b>Annual Emission Calculations</b>	
Standing Losses (lb):	240.3879
Vapor Space Volume (cu ft):	2,522.7789
Vapor Density (lb/cu ft):	0.0017
Vapor Space Expansion Factor:	0.1569
Vented Vapor Saturation Factor:	0.9533
<b>Tank Vapor Space Volume:</b>	
Vapor Space Volume (cu ft):	2,522.7789
Tank Diameter (ft):	10.2500
Effective Diameter (ft):	25.0350
Vapor Space Outage (ft):	5.1250
Tank Shell Length (ft):	48.0000
<b>Vapor Density</b>	
Vapor Density (lb/cu ft):	0.0017
Vapor Molecular Weight (lb/lb-mole):	84.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1805
Daily Avg. Liquid Surface Temp. (deg. R):	809.6700
Daily Average Ambient Temp. (deg. F):	65.4000
Ideal Gas Constant R (psia cu ft / (lb-mol-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	859.6700
Tank Paint Solar Absorptance (Shell):	0.1700
Daily Total Solar Insulation Factor (Btu/sqft day):	1,648.9051
<b>Vapor Space Expansion Factor</b>	
Vapor Space Expansion Factor:	0.1569
Daily Vapor Temperature Range (deg. R):	100.0000
Daily Vapor Pressure Range (psia):	0.4777
Breather Vent Press. Setting Range (psia):	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1805
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.0532
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.5309
Daily Avg. Liquid Surface Temp. (deg R):	809.6700
Daily Min. Liquid Surface Temp. (deg R):	759.6700
Daily Max. Liquid Surface Temp. (deg R):	859.6700
Daily Ambient Temp. Range (deg. R):	24.5000
<b>Vented Vapor Saturation Factor</b>	
Vented Vapor Saturation Factor:	0.9533
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1805
Vapor Space Outage (ft):	5.1250
<b>Working Losses (lb):</b>	
Working Losses (lb):	270.7500
Vapor Molecular Weight (lb/lb-mole):	84.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.1805
Annual Net Throughput (gal/yr.):	750,000.0000
Annual Turnovers:	25.0000
Turnover Factor:	1.0000
Tank Diameter (ft):	10.2500
Working Loss Product Factor:	1.0000
<b>Total Losses (lb):</b>	
Total Losses (lb):	511.1379







**TANKS 4.0.9d**  
**Emissions Report - Detail Format**  
**Individual Tank Emission Totals**

**Emissions Report for: Annual**

**Asphalt Tank - Horizontal Tank**  
**, California**

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Asphalt Oil	270.75	240.39	511.14
Benzene	0.97	0.87	1.84
Unidentified Components	269.23	239.04	508.27
Naphthalene	0.54	0.48	1.02
Formaldehyde	0.00	0.00	0.00









# San Joaquin Valley Air Pollution Control District

[www.valleyair.org](http://www.valleyair.org)



## Checklist for Permit Applications:

To avoid unnecessary delays, please review the following checklist before submitting your Authority to Construct/Permit to Operate Application.

Checklist for Complete Applications (include the following)	
	1. A signed Authority to Construct/Permit to Operate Application.
	2. Include a site map that identifies the location(s) where the new/modified unit(s) will operate and the approximate property lines. This is required for any proposal for new equipment, an increase in emissions from existing units, or change in location of emission points.
	3. Any applicable supplemental application forms. Supplemental application forms can be found here: <a href="http://www.valleyair.org/busind/pto/ptoforms/1ptoformidx.htm">http://www.valleyair.org/busind/pto/ptoforms/1ptoformidx.htm</a>
	4. Equipment listing (including a list of electric motors with hp rating).
	5. Include a short project description, including a process flow schematic identifying emission points.
	6. Process parameters (describe throughput, operating schedule, fuel rate, raw material usage, etc.).
	7. Identify control equipment/technology.
	8. Any additional information required to calculate emissions.
	9. \$87 filing fee for each permit unit. <i>Note: Permit application processing time will be billed at the applicable District hourly labor rate</i>

Detailed Authority to Construct (ATC) and Permit to Operate (PTO) Application Instructions can be found here:

PDF Format: <http://www.valleyair.org/busind/pto/ptoforms/atcappinstruct.pdf>

Word Format: <http://www.valleyair.org/busind/pto/ptoforms/WordDocs/atcappinstruct.doc>

Applications may be submitted either by mail or in person at any of the regional offices listed below. The District is pleased to provide businesses with assistance in all aspects of the permitting process. Any business is welcome to call the **Small Business Assistance (SBA) Hotline** or to visit the SBA Office located in each of the regional offices. No appointment is necessary. For more information, please call the SBA Hotline serving the county in which your business is located.

**Northern Region Office**  
(Serving San Joaquin, Stanislaus, and Merced Counties):

4800 Enterprise Way  
Modesto, California 95356-8718  
(209) 557-6400  
FAX: (209) 557-6475  
**SBA Hotline: (209) 557-6446**

**Central Region Office**  
(Serving Madera, Fresno, and Kings Counties):

1990 E Gettysburg Avenue  
Fresno, California 93726-0244  
(559) 230-5900  
FAX: (559) 230-6061  
**SBA Hotline: (559) 230-5888**

**Southern Region Office**  
(Serving Tulare and Kern Counties):

34946 Flyover Court  
Bakersfield, California 93308  
(661) 392-5500  
FAX: (661) 392-5585  
**SBA Hotline: (661) 392-5665**





# San Joaquin Valley Air Pollution Control District Authority to Construct/Permit to Operate Application Form



[www.valleyair.org](http://www.valleyair.org)

<b>1. PERMIT TO BE ISSUED TO:</b>	
<b>2. MAILING ADDRESS:</b>	<b>STREET or P O BOX:</b>
	<b>CITY:</b> _____ <b>STATE:</b> _____ <b>ZIP CODE:</b> _____
<b>3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:</b> <i>Check box if same as mailing address and skip to next section.</i> <b>STREET:</b> _____ <b>CITY:</b> _____ <i>If a physical address is not available:</i> <b>ZIP CODE:</b> _____ <b>1/4 SECTION:</b> _____ <b>TOWNSHIP:</b> _____ <b>RANGE:</b> _____	
<b>4. IS EQUIPMENT WITHIN 1,000 FT OF A SCHOOL?</b> YES      NO	
<b>5. GENERAL NATURE OF BUSINESS:</b>	
<b>6. S.I.C. CODE OF FACILITY:</b>	
<b>7. TITLE V PERMIT HOLDERS ONLY: Do you request a COC (EPA Review) prior to receiving your ATC?</b> YES <i>If yes, please complete and attach a Compliance Certification form (TVFORM-009)</i> NO	
<b>8. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE:</b> <i>(Please include permit #s if known, a site map, a Supplemental Application Form if available, and use additional sheets if necessary)</i>          Yes, a site map is included indicating approximate emission locations and property lines.	
<b>9. IS THE EQUIPMENT OR MODIFICATION ALREADY INSTALLED OR COMPLETED?</b> YES <i>Please provide date of installation:</i> _____ NO <i>Please provide expected date of installation or modification:</i> _____	
<b>10. DO YOU REQUEST A PERIOD TO REVIEW THE DRAFT AUTHORITY TO CONSTRUCT (ATC) PERMIT PRIOR TO ATC ISSUANCE?</b> <i>Please note that requesting a review period will delay issuance of your final permit by a corresponding number of working days. See instructions for more information on this review</i> 3-day review 10-day review No review requested	
<b>11. IS THIS APPLICATION FOR THE CONSTRUCTION OF A NEW FACILITY?</b> YES <i>If "Yes", please complete the CEQA Information form: <a href="http://www.valleyair.org/busind/pto/ptoforms/CEQAInformationForm.doc">http://www.valleyair.org/busind/pto/ptoforms/CEQAInformationForm.doc</a>.</i> NO <i>If "No", is the proposed equipment or project allowed by either:</i> - <i>the Conditional Use Permit or other Land Use Permit?</i> YES      NO - <i>or by Right?</i> YES      NO	
<b>12. IS THIS APPLICATION SUBMITTED AS THE RESULT OF EITHER A NOTICE OF VIOLATION (NOV) OR A NOTICE TO COMPLY (NTC)?</b> YES      NO <i>If yes, NOV/NTC #:</i> _____	
<b>13. APPLICANT NAME:</b> _____ <b>TITLE:</b> _____  <b>SIGNATURE:</b> _____ <b>DATE:</b> _____	<b>14. APPLICANT CONTACT INFORMATION:</b> <b>PHONE #:</b> (    )    - _____ <b>CELL PHONE #:</b> (    )    - _____ <b>E-MAIL:</b> _____
<b>15. Optional Section: DO YOU WANT TO RECEIVE INFORMATION ABOUT EITHER OF THE FOLLOWING VOLUNTARY PROGRAMS?</b> "HEALTHY AIR LIVING (HAL) BUSINESS PARTNER"      "INSPECT"	

## FOR APCD USE ONLY:

<b>DATE STAMPS</b>          	<b>FILING FEE RECEIVED:\$</b>	<b>CHECK #:</b>	<b>DATE PAID:</b>
	<b>PROJECT #:</b>	<b>FACILITY ID #:</b>	



# San Joaquin Valley Air Pollution Control District

## Supplemental Application Form

### CEQA Information

The San Joaquin Valley Air Pollution Control District (District) is required by state law, the California Environmental Quality Act (CEQA), to review discretionary permit project applications for potential air quality and other environmental impacts. This form is a screening tool to assist the District in clarifying whether or not the project has the potential to generate significant adverse environmental impacts that might require preparation of a CEQA document (CEQA Guidelines §15060(a)).

PERMIT TO BE ISSUED TO:
LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:

<b>Section 1: Agency Approvals</b>			
Check "Yes" or "No" as applicable.		Yes	No
1.	Has a Lead Agency prepared an environmental review document (Environmental Impact Review, Mitigated Negative Declaration, Negative Declaration, or Notice of Exemption) for this project?	<input type="checkbox"/> <i>Note 1</i>	<input type="checkbox"/>
2.	Is a Lead Agency in the process of preparing an environmental review document (Environmental Impact Review, Mitigated Negative Declaration, Negative Declaration, or Notice of Exemption) for this project?	<input type="checkbox"/> <i>Note 1</i>	<input type="checkbox"/>
<p><i>If "Yes" is checked for <u>either</u> question 1 or 2, please provide the following information:</i></p> <ul style="list-style-type: none"> <li>- Lead Agency name : _____</li> <li>- Name of Lead Agency contact person: _____</li> <li>- Type of CEQA document prepared: _____</li> <li>- Project reference number: _____</li> <li>- <i>If a CEQA Environmental Review document has been prepared for this project, please attach a <b><u>copy of the Notice of Determination or the Notice of Exemption</u></b></i></li> </ul> <p><i>If "No" is checked for <u>both</u> questions 1 and 2, please attach an explanation:</i></p>			

**Note 1: If you answered YES to question 1 OR 2 do not complete Section 2 of this form, and please return the completed form to the Air Pollution Control District.**



**Section 2:****Project Information**

**Note: If you answered YES to question 1 OR 2 of Section 1 do not complete this section, and please return the completed form to the Air Pollution Control District.**

		Yes	No
1.	Would this project result in more than 47 heavy-duty truck (HD) one-way trips per day to and from the facility? (23 heavy-duty truck (HD) round trips per day).	<input type="checkbox"/>	<input type="checkbox"/>
2.	Would this project result in a need for more than 350 new employees?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Would this project result in more than 700 customer trips per day to and from the facility?	<input type="checkbox"/>	<input type="checkbox"/>
4.	Would this project increase the demand for water at the facility by more than 5,000,000 gallons per day?	<input type="checkbox"/>	<input type="checkbox"/>
5.	Would this project require construction of new water conveyance infrastructure <i>Post-project facility water demand exceeding the capacity of local water purveyor.</i>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Would this project create a permanent need for new or additional public services for Solid Waste Disposal or Hazardous Waste Disposal? <i>Post-project waste discharge exceeding the capacity of the local Solid Waste Disposal or Hazardous Waste Disposal.</i>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Would this project result in noticeable off-site odors that have the potential to generate nuisance complaints?	<input type="checkbox"/>	<input type="checkbox"/>
8.	Would this project include equipment with a noise specification greater than 90 decibels (db)?	<input type="checkbox"/>	<input type="checkbox"/>
9.	Has this project generated any known public concern regarding potential adverse impacts? <i>Public concern may be interpreted as concerns by local groups at public meetings, adverse media attention such as negative newspapers or other periodical publications, local news programs, environmental justice issues, etc.</i>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Would this project result in any demolition, excavation, and/or grading/construction activities <u>outside</u> the perimeter of the existing facility?	<input type="checkbox"/>	<input type="checkbox"/>
11.	Would this project result in any demolition, excavating, and/or grading construction activities that encompass an area exceeding 20,000 Square feet ( <u>inside</u> or <u>outside</u> the perimeter of the existing facility)?	<input type="checkbox"/>	<input type="checkbox"/>
12.	Is this project part of a larger development activity at the facility that collectively would result in answering YES to any of the questions listed above?	<input type="checkbox"/>	<input type="checkbox"/>

**FOR DISTRICT USE ONLY – CEQA ANALYSIS REQUEST**

PERMIT	TECHNICAL SERVICES
AQE Name:	AQS Name:
Facility Name:	PAS #: CEQA #:
Facility #: Project #:	Project with potential public concern? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is this an RO project? <input type="checkbox"/> Yes <input type="checkbox"/> No	Detailed CEQA analysis required? <input type="checkbox"/> Yes <input type="checkbox"/> No
Project subject to Public Notice? <input type="checkbox"/> Yes <input type="checkbox"/> No	Indemnification Agreement (IA) required? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Letter of Credit (LOC) required? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Please summarize or attach the following: <ul style="list-style-type: none"> <li>- <input type="checkbox"/> Copy of application form</li> <li>- <input type="checkbox"/> CEQA Analysis Request form</li> <li>- <input type="checkbox"/> GHG Determination (&gt;230MT-CO<sub>2</sub>e/yr? BPS?)</li> <li>- <input type="checkbox"/> Expected date of ATC(s) issuance: _____</li> </ul>	<ul style="list-style-type: none"> <li>- <input type="checkbox"/> IA/LOC received</li> <li>- <input type="checkbox"/> CEQA paragraph sent to permit engineer</li> <li>- <input type="checkbox"/> NOD prepared</li> <li>- <input type="checkbox"/> County filing fees District check prepared</li> <li>- <input type="checkbox"/> Game and Fish fees District check or proof of payment <i>(District check prepared after receiving applicant check)</i></li> <li>- <input type="checkbox"/> CEQA Ready and ok to issue ATC</li> </ul>
Date form is forwarded to Tech. Services SVr:	Date form is forwarded back to permit engineer:



September 6, 2019

Dunn's Inc.  
303 N. Ben Maddox Way  
Visalia, 93292

Attention: Mark Dunn

Subject: San Joaquin Valley APCD Stationary Concrete Batch Plant Permit  
Application

Dear Mark:

Enclosed is your copy and the original permit application package for your stationary concrete batch plant with San Joaquin Valley APCD.

Please sign the originals and forward the original to the San Joaquin Valley APCD, along with a check in the amount of \$87.00 to cover the filing fee. In addition, every applicant who files an application for an Authority to Construct or a Permit to Operate with the District shall pay an engineering evaluation fee for the processing of the application. The fee shall be calculated using the staff hours expended and the prevailing weighted labor rate. All filing fees paid shall be credited towards the evaluation fee.

If you have any questions, please feel free to call me at (562) 495-5777.

Sincerely,



Diana Nguyen  
Alta Environmental



September 6, 2019

San Joaquin Valley Air Pollution Control District  
1900 East Gettysburg Avenue  
Fresno, CA 93726-0244

Attention: Permit Services

Subject: Dunn's Inc.  
Stationary Concrete Batch Plant Permit Application

Attached you will find the application package which covers the permit to construct for Dunn's Inc. stationary concrete batch plant. You will also find a check in the amount of \$87.00 to cover the filing fees.

We trust the information provided will allow you to complete your evaluation. If you have any questions, please feel free to give us a call at (562) 495-5777.

Best Regards,



Diana Nguyen  
Alta Environmental

cc: Mark Dunn, Dunn's Inc.





Alta Environmental an NV5 Company  
3777 Long Beach Boulevard, Annex Building  
Long Beach, CA 90807  
T: (562) 495-5777 F: (562) 495-5877

## FEE SCHEDULE WORK SHEET

(For Permit Processing in Accordance With Rule 3010)

Permits to be issued to: Dunn's Inc.

Address: 303 N. Maddox Way

City, State, Zip: Visalia, CA 93292

Quantity of Identical Units	Equipment/Process	Fee Schedule	Permit Application Fee	=	Total
1	Stationary concrete batch plant	--	\$87.00	=	\$87.00
		--		=	

Total Permit Processing Fee Due \$87.00

Comments:

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APPLICATION TO THE  
SAN JOAQUIN VALLEY AIR  
POLLUTION CONTROL DISTRICT

1900 East Gettysburg Avenue  
Fresno, CA 93726-0244

**PERMIT TO CONSTRUCT FOR A  
STATIONARY CONCRETE BATCH PLANT**

**Prepared For:**

Dunn's Inc.  
303 N. Ben Maddox Way  
Visalia, CA 93292

Project No.: DUNN-19-8904  
Contact: Diana Nguyen  
Date: July 23, 2019

**Alta Environmental an NV5 Company**  
3777 Long Beach Boulevard Annex Building  
Long Beach, CA 90807 United States of America  
T: 562-495-5777 F: 562-495-5877  
[www.altaenviron.com](http://www.altaenviron.com)



## **SUMMARY**

Dunn's Equipment, Inc. (Dunn's Inc.) is requesting a Permit to Construct a portable concrete batch plant. This plant will be powered by electric grid power. This application will show that the emissions are less than the District's Rule 2201 (4.5.3) annual thresholds therefore exempting the plant from offsets. The plant emissions are below the District's Rule 2201 (5.4) daily public notice thresholds for all pollutants.

This concrete batch plant will be equipped with the Best Available Control Technology (BACT) in compliance with the District's New Source Review Regulation.



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Figure 1	–	Flow Diagram
"A"	–	AP-42 Emission Factors (Tables 11.19.2-2 and 11.12-2)



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## **PART I – PROJECT DESCRIPTION**

### **A. Business Background**

1. Name  
Dunn's Inc.
2. Owner  
Dunn's Inc.  
303 N. Ben Maddox Way  
Visalia, CA 93292
3. Contact  
Mark Dunn  
(559) 734-5373
4. Entitlement  
Equipment to be owned and operated by  
Dunn's Inc.
5. Business Description  
Concrete Batch Plant

### **B. Type of Application**

Permit to Construct

### **C. Description of Facility**

1. Location  
7763 Avenue 280  
Visalia, CA 93277
2. General Purpose of Facility  
  
The proposed facility will produce ready-mix concrete for wholesale delivery to construction industries for use in paving streets and highways.





## **D. Description of Process**

### **1. General Description of each Process Line**

#### **a.) Concrete Batch Plant**

The facility will produce Ready-Mix concrete to be used in paving of streets and highways.

Sand and aggregate are delivered by bottom discharge trucks to a paved area of the facility. A loader bucket scoops up the sand/aggregate and discharges the material into a loader hopper. The sand and aggregate are transferred by a belt conveyor to four plant storage bins each containing less than ¼ days storage. Each storage bin falls by gravity into a weigh batcher. The live bottom weigh batcher transfers the material from one conveyor to another. The sand and aggregate are transferred by belt conveyor to the Concrete Mixer truck.

Cement and fly ash are delivered to two storage silos by pneumatic trucks. One of the silos is equipped with a single compartment which feed directly into the weighing and batching hopper. The second silo discharges into a screw conveyor which transfers the cement/fly ash to the weighing batching hopper. The hopper discharges directly into the Concrete Mixer Truck.

The Concrete Mixer Truck is fed simultaneously by the aggregate and cement weigh hoppers. Control of material feeds is automatic. Water is added to the Concrete Mixer Truck.

### **2. Flow Diagram**

Refer to figure 1. This diagram illustrates the concrete batch plant and shows the interaction between process lines, transfer of materials, and basic control equipment.

### **3. Maximum Production Schedule**

The plant will produce a maximum of 641.8 tons of concrete per day and 200,250 tons per year.





#### 4. Equipment List and Horsepower Schedule

(Refer to Flow Diagram Figure 1)

Item	Description	HP
H-1	Loader Feed Hopper	-
BC-1	Radial Belt Conveyor, 30" W	25
BC-2	Aggregate Weigh Hopper Belt Conveyor, 36"W	20
AB-1	Aggregate Bin, 4 Compartment, 160 Cu Yd	-
AWH-1	Aggregate Weigh Hopper, 12 Cu Yd	-
S-1	Silo 1 - Cement or Fly Ash 2260 Cu Ft	-
SC-1	Silo 1 Cement Screw	15
S-2	Silo 2 - Cement or Fly Ash 2260 Cu Ft	-
SC-3	Cement Weigh Hopper, 14" diameter	10
CWH-1	Cement Weigh Hopper, 12 Cu Yd	-
BV-1	Bin Vent	-
BV-2	Bin Vent	-
BV-3	Cement Weigh Hopper Batcher Vent	-
BV-4	Mixer Truck Dust Collector	15
	Air Blower	5
	Air Compressor	10

#### E. Control Equipment

##### 1. Particulate Matter Control

The District New Source Review Regulation specifies that new equipment will be in compliance with the BACT guidelines.

Material will be kept sufficiently moist to control particulate via the use of water spray.



## **PART II – REGULATORY ANALYSIS**

### **A. Analysis of Emissions Restrictions**

District prohibitory rules limit the emissions of various pollutants from all sources in the District. The specific rules that apply to the proposed project are discussed below. The limitations in these rules will be met through the application of BACT. BACT requirements are discussed in detail in Section "B" of this part of the application.

#### **1. Fugitive Dust**

No person shall perform any outdoor handling, storage and transport of bulk materials unless the appropriate control measures are sufficiently implemented to limit visible dust emissions to 20% opacity as set forth in Rule 8031 and Table 8031-1. Compliance with the rule will be achieved through the use of water.

#### **2. Rule 4101 Visible Emissions**

The opacity of visible emissions will be limited by Rule 4101 not to exceed No. 1 of the United States Bureau of Mines Ringelmann Chart, or to the equivalent opacity. Ringelmann No. 1 corresponds to 20% opacity. Since BACT will limit opacity of 5%, compliance with Rule 4101 will be achieved.

#### **3. Rule 4001 New Source Performance Standards (NSPS)**

This facility is subject to the requirements of NSPS Subpart OOO, Nonmetallic Mineral Processing Plants. This facility will demonstrate compliance with the performance standards of Subpart OOO within 60 days of reaching maximum production, but no later than 180 days after start-up.

All affected facilities are manufactured after April 22, 2008, therefore are subject to 7% opacity for belts and screens and 12% opacity for belt conveyors.





4. Rule 4102 Public Nuisance

No person shall discharge from any source whatsoever such quantities of air contaminants or other materials that cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger to comfort, repose, health or safety of any such person or the public, or which cause or have a natural tendency to cause injury or damage to business or property.

This operation is not expected to produce a public nuisance or annoyance.

5. Federally-Mandated Operation Permit

Since this facility's potential emissions do not exceed any major source thresholds per year per Rule 2201, this facility is not a major source, and Rule 2520 does not apply (See Part III (D) of the application).

**B. Analysis of New Source Review Requirements/BACT**

In accordance with the requirements of Rule 2201.4.1, (BACT), Dunn's Inc has identified the BACT measures that apply to the facility.

1. Aggregate Processing

The receiving materials will have moisture in the product and on-site water sprinklers to assist in additional dust suppression.

2. Cement Processing

The plant will contain two storage silos (S-1 & S-2). Each silo compartment will have its own CON-E-CO Model PJC300S Silo Dust Vents (BV-1 & BV-2). Collected material will be discharged back into the storage compartment that the dust was generated from. The cement will be weighed in a cement weigh hopper (CWH-1), which will be vented through a weigh hopper dust vent (BV-3) CON-E-CO Model 14-22. Collected dust in the cement weigh hopper dust vent will be discharged back into the cement weigh hopper.

3. Transfer Point

Water sprays will be used to minimize particulate emissions from transfer points between conveyors and other loading operations when necessary.





**C. Offsets**

Since this facility is below the offset threshold as in Rule 2201, Section 4.5.3, no offsets will be required (See Part III (C) of the application).

**D. Public Notification**

None of the daily emissions from criteria pollutants will be above 100 pounds per day. Therefore, public notice will not be necessary according to Rule 2201, Section 5.4 (See Part III (C) of the application).





### PART III – ESTIMATED EMISSIONS

#### A. Criteria Emissions Estimates for Concrete Batch Plant

The emissions estimates for the Concrete Batch Plant were calculated below. The emissions factors were taken from EPA AP 42 Table 11.12-2 and Table 11.12.-8 (Refer to Attachment "A").

Emission Point	Description	Throughput (tons/hour)	×	PM <sub>10</sub> Emissions Factor (lbs/ton)	=	PM <sub>10</sub> (lbs/hour)
1	Truck Unloading to Load Feed Hopper	66.1		3.30E-03		2.18E-01
2	Load Feed Hopper to Belt Conveyor 1	66.1		3.30E-03		2.18E-01
3	Belt Conveyor 1 to Aggregate Bin	66.1		3.30E-03		2.18E-01
4	Aggregate Bin to Aggregate Weigh Hopper	66.1		3.30E-03		2.18E-01
5	Aggregate Weigh Hopper to Belt Conveyor 2	66.1		3.30E-03		2.18E-01
6	Belt Conveyor to Truck Loading	66.1		3.10E-01		2.05E+01
Total PM <sub>10</sub> Emissions (lb/hour)						1.09E+00
Concrete Throughput (tons/hour)						÷ 80.2
Plant PM <sub>10</sub> Emission Factor (lbs/ton)						1.36E-02

Emission Point	Description	Throughput (tons/hour)	×	PM <sub>10</sub> Emissions Factor (lbs/ton)	=	PM <sub>10</sub> (lbs/hour)
7	Cement Unloading to Storage Silos	26.0		4.70E-01		1.22E+01
8	Fly Ash Unloading to Storage Silos	26.0		1.10E+00		2.86E+01
9	Storage Silo 1 to Screw Conveyor	8.5		2.80E-03		2.37E-02
10	Storage Silo 2 to Cement Weigh Hopper	8.5		2.80E-03		2.37E-02
11	Screw Conveyor to Cement Weigh Hopper	8.5		2.80E-03		2.37E-02
12	Cement Weigh Hopper to Truck Loading	8.5		3.10E-01		2.63E+00
Total PM <sub>10</sub> Emissions (lb/hour)						6.40E+01
Baghouse Filter Efficiency (99.9%)						× 0.001
Concrete Throughput (tons/hour)						÷ 80.2
Plant PM <sub>10</sub> Emission Factor (lbs/ton)						7.98E-04

Concrete Throughput			PM <sub>10</sub> Emissions Rate		
	×		(lbs/ton)	=	PM <sub>10</sub> Emissions
641.8 tons/day			1.44E-02		9.24 lbs/day
200,250 tons/year			1.44E-02		2,883 lbs/year





## B. Toxic Emissions Estimates for Concrete Batch Plant

Description	Throughput (tons/hr)	Ar (lbs/hr)	Be (lbs/hr)	Cd (lbs/hr)	Cr (lbs/hr)	Pb (lbs/hr)	Mn (lbs/hr)	Ni (lbs/hr)	P (lbs/hr)	Se (lbs/hr)
Cement Silo Filling	26	4.37E-08	4.65E-10	6.08E-09	6.55E-09	1.91E-08	5.25E-06	4.58E-07	3.07E-07	-
Cement Supplement Silo Filling	26	2.60E-05	2.35E-06	5.15E-09	3.17E-05	1.35E-05	6.66E-06	5.93E-05	9.20E-05	1.88E-06
Truck Loading	74.6	9.10E-07	1.82E-08	2.55E-09	8.50E-07	2.70E-07	4.56E-06	8.87E-07	2.86E-06	1.95E-07
<b>TOTAL</b>	-	2.70E-05	2.37E-06	1.38E-08	3.26E-05	1.38E-05	1.65E-05	6.06E-05	9.52E-05	2.08E-06

## C. Stockpiles

There will be a total of 0.5 acres of stockpile area. In accordance with San Joaquin Valley aggregate plant processing policy SSP-1610-10, 80% control will be used for water.

Total (Acres)	×	PM <sub>10</sub> Emission Factor (lb/acre-day)	×	Control Factor	=	PM <sub>10</sub> Daily Emissions (lb/day)
0.5		5.27		0.2		0.527
Daily PM <sub>10</sub> Emissions (lb/day)	×	Operating Schedule (days/yr)	=	PM <sub>10</sub> Yearly Emissions (lb/yr)	=	PM <sub>10</sub> Daily Emissions (tons/yr)
0.527		365		192		0.096





**D. Facility Emissions Summary/Emissions Rule Evaluation**

Pollutant	Concrete Batch Emissions (lbs/day)	+	Stockpile (lbs/day)	=	Overall Emissions (lbs/day)	≤	Rule 2201 5.4 Public Notice Limit (lbs/day)
PM <sub>10</sub>	9.24		0.53		9.77	<	100

Pollutant	Concrete Batch Emissions (lbs/year)	+	Stockpile (lbs/yr)	=	Overall Emissions (lbs/year)	=	Overall Emissions (tons/year)	≤	Rule 2201 4.5.3 Offset Limits (tons/year)
PM <sub>10</sub>	2,883		192		2,691		1.35	<	14.6



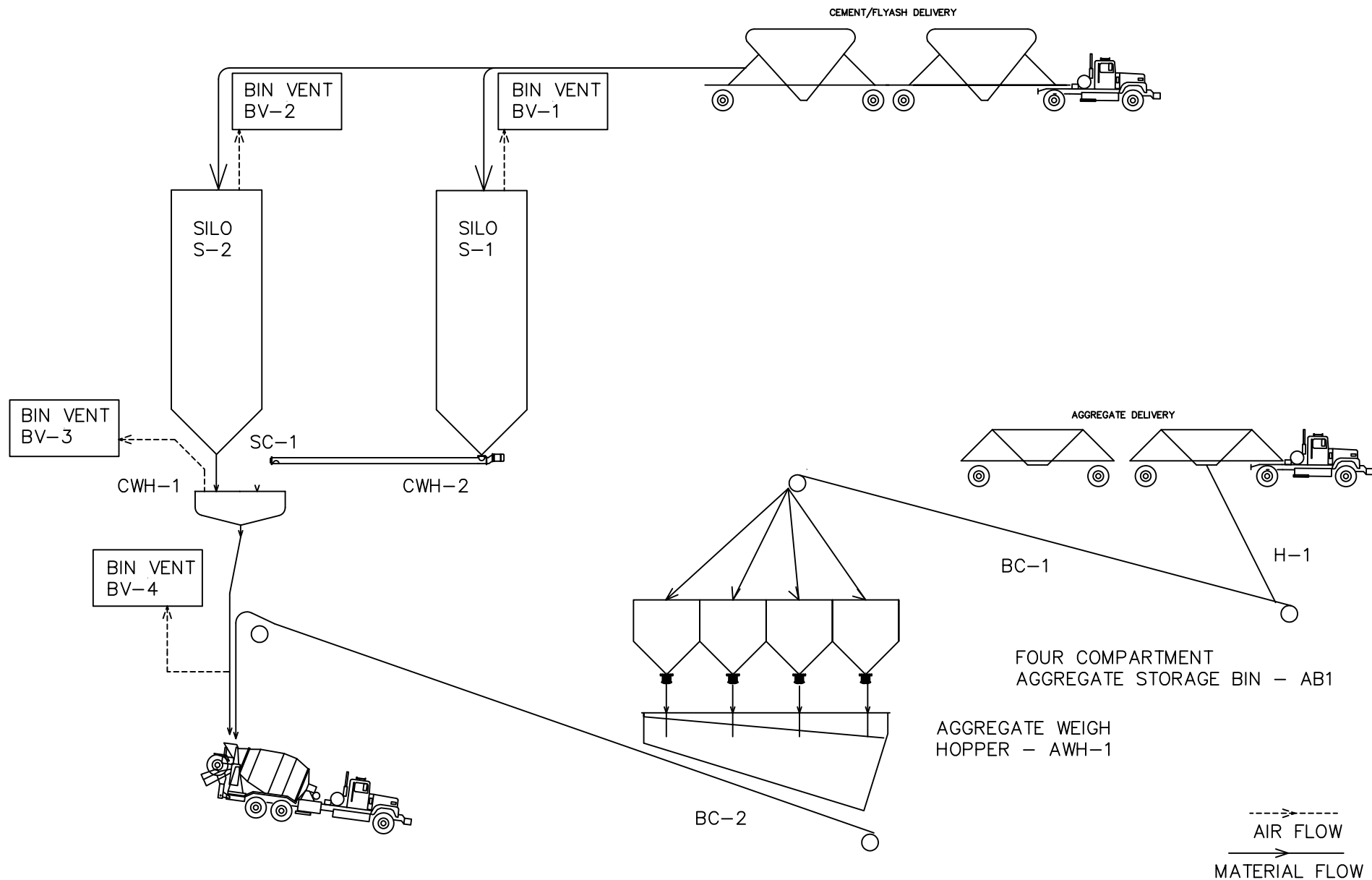
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#### **PART IV – ANALYSIS OF PERMIT RESTRICTIONS**

Anticipated production and fuel limits are listed below:

Aggregate production through the plant should be limited to 641.8 tons per day and 200,250 tons per year.





REVISIONS	DESCRIPTION	BY	CK	APP.	DATE	THIS DRAWING, ITS DESIGN, RETAIL, AND INVENTION, ARE THE PROPERTY OF DAVE HUMPHREY ENTERPRISES, INC. SUBMITTED TO THE RESIDENT IN CONNECTION, AND SHALL NOT BE LOANED, REPRODUCED, COPIED, OR IN ANY MANNER BE MADE TO ANY OUTSIDE PARTY WITHOUT THE WRITTEN CONSENT OF THIS COMPANY. THEY SHALL BE USED EXCLUSIVELY FOR THE PURPOSES FOR WHICH SUBMITTED BY DAVE HUMPHREY ENTERPRISES, INC. AND SHALL BE RETURNED ON REQUEST. ALL RIGHTS RESERVED.	DRAWN BY S.H. 5/15/98  CHECKED    APPROVED		DAVE HUMPHREY ENTERPRISES, INC. LIVERMORE, CA • HESPERIA, CA ENGINEERS • CONSULTANTS • DESIGNERS		CUSTOMER: DUNN'S READY-MIX VISALIA, CA	TITLE: FLOW CHART CON-E-CO BATCHMASTER	SCALE	N.S.	REV.	
														ORDER NO.		





## **ATTACHMENT "A"**

### **AP-42 EMISSION FACTORS (TABLES 11.12-2 AND 11.12.-8)**



TABLE 11.12-8 (ENGLISH UNITS)  
CONCRETE BATCH PLANT METAL EMISSION FACTORS <sup>a</sup>

	Arsenic	Beryllium	Cadmium	Total Chromium	Lead	Manganese	Nickel	Total Phosphorus	Selenium	Emission Factor Rating
Cement Silo Filling <sup>b</sup> (SCC 3-05-011-07) w/ Fabric Filter	1.68e-06 4.24e-09	1.79e-08 4.86e-10	2.34e-07 ND	2.52e-07 2.90e-08	7.36e-07 1.09e-08	2.02e-04 1.17e-07	1.76e-05 4.18e-08	1.18e-05 ND	ND ND	E E
Cement Supplement Silo Filling <sup>c</sup> (SCC 3-05-011-17) w/ Fabric Filter	ND 1.00e-06	ND 9.04e-08	ND 1.98e-10	ND 1.22e-06	ND 5.20e-07	ND 2.56e-07	ND 2.28e-06	ND 3.54e-06	ND 7.24e-08	E E
Central Mix Batching <sup>d</sup> (SCC 3-05-011-09) w/ Fabric Filter	8.38e-06 2.96e-07	ND ND	1.18e-08 7.10e-10	1.42e-06 1.27e-07	3.82e-07 3.66e-08	6.12e-05 3.78e-06	3.28e-06 2.48e-07	2.02e-05 1.20e-06	ND ND	E E
Truck Loading <sup>e</sup> (SCC 3-05-011-10) w/ Fabric Filter	1.22e-05 6.02e-07	2.44e-07 1.04e-07	3.42e-08 9.06e-09	1.14e-05 4.10e-06	3.62e-06 1.53e-06	6.12e-05 2.08e-05	1.19e-05 4.78e-06	3.84e-05 1.23e-05	2.62e-06 1.13e-07	E E

ND=No data

<sup>a</sup> All emission factors are in lb of pollutant per ton of material loaded unless noted otherwise. Loaded material includes course aggregate, sand, cement, cement supplement and the surface moisture associated with these materials. The average material composition of concrete batches presented in references 9 and 10 was 1865 lbs course aggregate, 1428 lbs sand, 491 lbs cement and 73 lbs cement supplement. Approximately 20 gallons of water was added to this solid material to produce 4024 lbs (one cubic yard) of concrete.

<sup>b</sup> The uncontrolled emission factors were developed from Reference 9. The controlled emission factors were developed from Reference 9 and 10. Although controlled emissions of phosphorous compounds were below detection, it is reasonable to assume that the effectiveness is comparable to the average effectiveness (98%) for the other metals.

<sup>c</sup> Reference 10.

<sup>d</sup> Reference 9. The emission factor units are lb of pollutant per ton of cement and cement supplement. Emission factors were developed from a typical central mix operation. The average estimate of the percent of emissions captured during each test run is 94%.

<sup>e</sup> Reference 9 and 10. The emission factor units are lb of pollutant per ton of cement and cement supplement. Emission factors were developed from two typical truck mix loading operations. Based upon visual observations of every loading operation during the two test programs, the average capture efficiency during the testing was 71%.



## References for Section 11.12

1. *Air Pollutant Emission Factors*, APTD-0923, U.S. Environmental Protection Agency, Research Triangle Park, NC, April 1970.
2. *Air Pollution Engineering Manual*, 2<sup>nd</sup> Edition, AP-40, U.S. Environmental Protection Agency, Research Triangle Park, NC, 1974. Out of Print.
3. Telephone and written communication between Edwin A. Pfetzing, PEDCo Environmental, Inc., Cincinnati, OH, and Richards Morris and Richard Meininger, National Ready Mix Concrete Association, Silver Spring, MD, May 1984.
4. *Development Document for Effluent Limitations Guidelines and Standards of Performance, The Concrete Products Industries, Draft*, U.S. Environmental Protection Agency, Washington, DC, August 1975.
5. Portland Cement Association. (2001). Concrete Basics. Retrieved August 27, 2001 from the World Wide Web: <http://www.portcement.org/cb/>
6. *Technical Guidance for Control of Industrial Process Fugitive Particulate Emissions*, EPA-450/3-77-010, U.S. Environmental Protection Agency, Research Triangle Park, NC, March 1977.
7. *Fugitive Dust Assessment at Rock and Sand Facilities in the South Coast Air Basin*, Southern California Rock Products Association and Southern California Ready Mix Concrete Association, Santa Monica, CA, November 1979.
8. Telephone communication between T.R. Blackwood, Monsanto Research Corp., Dayton, OH, and John Zoller, PEDCo Environmental, Inc., Cincinnati, OH, October 18, 1976.
9. *Final Test Report for USEPA [sic] Test Program Conducted at Chaney Enterprises Cement Plant*, ETS, Inc., Roanoke, VA April 1994.
10. *Final Test Report for USEPA [sic] Test Program Conducted at Concrete Ready Mixed Corporation*, ETS, Inc., Roanoke, VA April 1994.
11. *Emission Test for Tiberi Engineering Company*, Alar Engineering Corporation, Burbank, IL, October, 1972.
12. *Stack Test "Confidential"* (Test obtained from State of Tennessee), Environmental Consultants, Oklahoma City, OK. February 1976.
13. *Source Sampling Report, Particulate Emissions from Cement Silo Loading*, Specialty Alloys Corporation, Gallaway, Tennessee, Reference number 24-00051-02, State of Tennessee, Department of Health and Environment, Division of Air Pollution Control, June 12, 1984.



TABLE 11.12-2 (ENGLISH UNITS)  
EMISSION FACTORS FOR CONCRETE BATCHING <sup>a</sup>

Source (SCC)	Uncontrolled				Controlled			
	Total PM	Emission Factor Rating	Total PM <sub>10</sub>	Emission Factor Rating	Total PM	Emission Factor Rating	Total PM <sub>10</sub>	Emission Factor Rating
Aggregate transfer <sup>b</sup> (3-05-011-04,-21,23)	0.0069	D	0.0033	D	ND		ND	
Sand transfer <sup>b</sup> (3-05-011-05,22,24)	0.0021	D	0.00099	D	ND		ND	
Cement unloading to elevated storage silo (pneumatic) <sup>c</sup> (3-05-011-07)	0.73	E	0.47	E	0.00099	D	0.00034	D
Cement supplement unloading to elevated storage silo (pneumatic) <sup>d</sup> (3-05-011-17)	3.14	E	1.10	E	0.0089	D	0.0049	E
Weigh hopper loading <sup>e</sup> (3-05-011-08)	0.0048	D	0.0028	D	ND		ND	
Mixer loading (central mix) <sup>f</sup> (3-05-011-09)	0.572 or Eqn. 11.12-1	B	0.156 or Eqn. 11.12-1	B	0.0184 or Eqn. 11.12-1	B	0.0055 or Eqn. 11.12-1	B
Truck loading (truck mix) <sup>g</sup> (3-05-011-10)	1.118	B	0.310	B	0.098 or Eqn. 11.12-1	B	0.0263 or Eqn. 11.12-1	B
Vehicle traffic (paved roads)	See AP-42 Section 13.2.1, Paved Roads							
Vehicle traffic (unpaved roads)	See AP-42 Section 13.2.2, Unpaved Roads							
Wind erosion from aggregate and sand storage piles	See AP-42 Section 13.2.5, Industrial Wind Erosion							



ND = No data

<sup>a</sup> All emission factors are in lb of pollutant per ton of material loaded unless noted otherwise. Loaded material includes course aggregate, sand, cement, cement supplement and the surface moisture associated with these materials. The average material composition of concrete batches presented in references 9 and 10 was 1865 lbs course aggregate, 1428 lbs sand, 491 lbs cement and 73 lbs cement supplement. Approximately 20 gallons of water was added to this solid material to produce 4024 lbs (one cubic yard) of concrete.

<sup>b</sup> Reference 9 and 10. Emission factors are based upon an equation from AP-42, section 13.2.4 Aggregate Handling And Storage Piles, equation 1 with  $k_{PM-10} = .35$ ,  $k_{PM} = .74$ ,  $U = 10\text{mph}$ ,  $M_{\text{aggregate}} = 1.77\%$ , and  $M_{\text{sand}} = 4.17\%$ . These moisture contents of the materials ( $M_{\text{aggregate}}$  and  $M_{\text{sand}}$ ) are the averages of the values obtained from Reference 9 and Reference 10.

<sup>c</sup> The uncontrolled PM & PM-10 emission factors were developed from Reference 9. The controlled emission factor for PM was developed from References 9, 10, 11, and 12. The controlled emission factor for PM-10 was developed from References 9 and 10.

<sup>d</sup> The controlled PM emission factor was developed from Reference 10 and Reference 12, whereas the controlled PM-10 emission factor was developed from only Reference 10.

<sup>e</sup> Emission factors were developed by using the Aggregate and Sand Transfer Emission Factors in conjunction with the ratio of aggregate and sand used in an average yard<sup>3</sup> of concrete. The unit for these emission factors is lb of pollutant per ton of aggregate and sand.

<sup>f</sup> References 9, 10, and 14. The emission factor units are lb of pollutant per ton of cement and cement supplement. The general factor is the arithmetic mean of all test data.

<sup>g</sup> Reference 9, 10, and 14. The emission factor units are lb of pollutant per ton of cement and cement supplement. The general factor is the arithmetic mean of all test data.





# San Joaquin Valley Air Pollution Control District

[www.valleyair.org](http://www.valleyair.org)



## Checklist for Permit Applications:

To avoid unnecessary delays, please review the following checklist before submitting your Authority to Construct/Permit to Operate Application.

Checklist for Complete Applications (include the following)	
	1. A signed Authority to Construct/Permit to Operate Application.
	2. Include a site map that identifies the location(s) where the new/modified unit(s) will operate and the approximate property lines. This is required for any proposal for new equipment, an increase in emissions from existing units, or change in location of emission points.
	3. Any applicable supplemental application forms. Supplemental application forms can be found here: <a href="http://www.valleyair.org/busind/pto/ptoforms/1ptoformidx.htm">http://www.valleyair.org/busind/pto/ptoforms/1ptoformidx.htm</a>
	4. Equipment listing (including a list of electric motors with hp rating).
	5. Include a short project description, including a process flow schematic identifying emission points.
	6. Process parameters (describe throughput, operating schedule, fuel rate, raw material usage, etc.).
	7. Identify control equipment/technology.
	8. Any additional information required to calculate emissions.
	9. \$87 filing fee for each permit unit. <i>Note: Permit application processing time will be billed at the applicable District hourly labor rate</i>

Detailed Authority to Construct (ATC) and Permit to Operate (PTO) Application Instructions can be found here:

PDF Format: <http://www.valleyair.org/busind/pto/ptoforms/atcappinstruct.pdf>

Word Format: <http://www.valleyair.org/busind/pto/ptoforms/WordDocs/atcappinstruct.doc>

Applications may be submitted either by mail or in person at any of the regional offices listed below. The District is pleased to provide businesses with assistance in all aspects of the permitting process. Any business is welcome to call the **Small Business Assistance (SBA) Hotline** or to visit the SBA Office located in each of the regional offices. No appointment is necessary. For more information, please call the SBA Hotline serving the county in which your business is located.

**Northern Region Office**  
(Serving San Joaquin, Stanislaus, and Merced Counties):

4800 Enterprise Way  
Modesto, California 95356-8718  
(209) 557-6400  
FAX: (209) 557-6475  
**SBA Hotline: (209) 557-6446**

**Central Region Office**  
(Serving Madera, Fresno, and Kings Counties):

1990 E Gettysburg Avenue  
Fresno, California 93726-0244  
(559) 230-5900  
FAX: (559) 230-6061  
**SBA Hotline: (559) 230-5888**

**Southern Region Office**  
(Serving Tulare and Kern Counties):

34946 Flyover Court  
Bakersfield, California 93308  
(661) 392-5500  
FAX: (661) 392-5585  
**SBA Hotline: (661) 392-5665**





1. PERMIT TO BE ISSUED TO:	
2. MAILING ADDRESS:	STREET or P O BOX:
	CITY: STATE: ZIP CODE:
3. LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: Check box if same as mailing address and skip to next section. STREET: CITY: If a physical address is not available: ZIP CODE: 1/4 SECTION: TOWNSHIP: RANGE:	
4. IS EQUIPMENT WITHIN 1,000 FT OF A SCHOOL? YES NO	
5. GENERAL NATURE OF BUSINESS:	
6. S.I.C. CODE OF FACILITY:	
7. TITLE V PERMIT HOLDERS ONLY: Do you request a COC (EPA Review) prior to receiving your ATC? YES If yes, please complete and attach a Compliance Certification form (TVFORM-009) NO	
8. DESCRIPTION OF EQUIPMENT OR MODIFICATION FOR WHICH APPLICATION IS MADE: (Please include permit #s if known, a site map, a Supplemental Application Form if available, and use additional sheets if necessary)	
Yes, a site map is included indicating approximate emission locations and property lines.	
9. IS THE EQUIPMENT OR MODIFICATION ALREADY INSTALLED OR COMPLETED? YES Please provide date of installation: NO Please provide expected date of installation or modification:	
10. DO YOU REQUEST A PERIOD TO REVIEW THE DRAFT AUTHORITY TO CONSTRUCT (ATC) PERMIT PRIOR TO ATC ISSUANCE? Please note that requesting a review period will delay issuance of your final permit by a corresponding number of working days. See instructions for more information on this review 3-day review 10-day review No review requested	
11. IS THIS APPLICATION FOR THE CONSTRUCTION OF A NEW FACILITY? YES If "Yes", please complete the CEQA Information form: http://www.valleyair.org/busind/pto/ptofoms/CEQAINformationForm.doc. NO If "No", is the proposed equipment or project allowed by either: - the Conditional Use Permit or other Land Use Permit? YES NO - or by Right? YES NO	
12. IS THIS APPLICATION SUBMITTED AS THE RESULT OF EITHER A NOTICE OF VIOLATION (NOV) OR A NOTICE TO COMPLY (NTC)? YES NO If yes, NOV/NTC #:	
13. APPLICANT NAME:  TITLE:  SIGNATURE: DATE:	14. APPLICANT CONTACT INFORMATION: PHONE #: ( ) - CELL PHONE #: ( ) - E-MAIL:
15. Optional Section: DO YOU WANT TO RECEIVE INFORMATION ABOUT EITHER OF THE FOLLOWING VOLUNTARY PROGRAMS? "HEALTHY AIR LIVING (HAL) BUSINESS PARTNER" "INSPECT"	

DATE STAMPS		FILING FEE RECEIVED:\$		CHECK #:	DATE PAID:
		PROJECT #:		FACILITY ID #:	

Revised: July 2019



**San Joaquin Valley Air Pollution Control District  
Supplemental Application Form**

**CEQA Information**

The San Joaquin Valley Air Pollution Control District (District) is required by state law, the California Environmental Quality Act (CEQA), to review discretionary permit project applications for potential air quality and other environmental impacts. This form is a screening tool to assist the District in clarifying whether or not the project has the potential to generate significant adverse environmental impacts that might require preparation of a CEQA document (CEQA Guidelines §15060(a)).

PERMIT TO BE ISSUED TO:
LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:

<b>Section 1:</b>	<b>Agency Approvals</b>		
<i>Check "Yes" or "No" as applicable.</i>		<b>Yes</b>	<b>No</b>
1.	Has a Lead Agency prepared an environmental review document (Environmental Impact Review, Mitigated Negative Declaration, Negative Declaration, or Notice of Exemption) for this project?	<input type="checkbox"/> <i>Note 1</i>	<input type="checkbox"/>
2.	Is a Lead Agency in the process of preparing an environmental review document (Environmental Impact Review, Mitigated Negative Declaration, Negative Declaration, or Notice of Exemption) for this project?	<input type="checkbox"/> <i>Note 1</i>	<input type="checkbox"/>
<i>If "Yes" is checked for <u>either</u> question 1 or 2, please provide the following information:</i> <ul style="list-style-type: none"><li>- Lead Agency name : _____</li><li>- Name of Lead Agency contact person: _____</li><li>- Type of CEQA document prepared: _____</li><li>- Project reference number: _____</li><li>- If a CEQA Environmental Review document has been prepared for this project, <b><u>please attach a copy of the Notice of Determination or the Notice of Exemption</u></b></li></ul> <i>If "No" is checked for <u>both</u> questions 1 and 2, please attach an explanation:</i>			

**Note 1: If you answered YES to question 1 OR 2 do not complete Section 2 of this form, and please return the completed form to the Air Pollution Control District.**



**Section 2:****Project Information**

**Note: If you answered YES to question 1 OR 2 of Section 1 do not complete this section, and please return the completed form to the Air Pollution Control District.**

		Yes	No
1.	Would this project result in more than 47 heavy-duty truck (HD) one-way trips per day to and from the facility? (23 heavy-duty truck (HD) round trips per day).	<input type="checkbox"/>	<input type="checkbox"/>
2.	Would this project result in a need for more than 350 new employees?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Would this project result in more than 700 customer trips per day to and from the facility?	<input type="checkbox"/>	<input type="checkbox"/>
4.	Would this project increase the demand for water at the facility by more than 5,000,000 gallons per day?	<input type="checkbox"/>	<input type="checkbox"/>
5.	Would this project require construction of new water conveyance infrastructure <i>Post-project facility water demand exceeding the capacity of local water purveyor.</i>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Would this project create a permanent need for new or additional public services for Solid Waste Disposal or Hazardous Waste Disposal? <i>Post-project waste discharge exceeding the capacity of the local Solid Waste Disposal or Hazardous Waste Disposal.</i>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Would this project result in noticeable off-site odors that have the potential to generate nuisance complaints?	<input type="checkbox"/>	<input type="checkbox"/>
8.	Would this project include equipment with a noise specification greater than 90 decibels (db)?	<input type="checkbox"/>	<input type="checkbox"/>
9.	Has this project generated any known public concern regarding potential adverse impacts? <i>Public concern may be interpreted as concerns by local groups at public meetings, adverse media attention such as negative newspapers or other periodical publications, local news programs, environmental justice issues, etc.</i>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Would this project result in any demolition, excavation, and/or grading/construction activities <u>outside</u> the perimeter of the existing facility?	<input type="checkbox"/>	<input type="checkbox"/>
11.	Would this project result in any demolition, excavating, and/or grading construction activities that encompass an area exceeding 20,000 Square feet ( <u>inside</u> or <u>outside</u> the perimeter of the existing facility)?	<input type="checkbox"/>	<input type="checkbox"/>
12.	Is this project part of a larger development activity at the facility that collectively would result in answering YES to any of the questions listed above?	<input type="checkbox"/>	<input type="checkbox"/>

**FOR DISTRICT USE ONLY – CEQA ANALYSIS REQUEST**

PERMIT	TECHNICAL SERVICES
AQE Name:	AQS Name:
Facility Name:	PAS #: CEQA #:
Facility #: Project #:	Project with potential public concern? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is this an RO project? <input type="checkbox"/> Yes <input type="checkbox"/> No	Detailed CEQA analysis required? <input type="checkbox"/> Yes <input type="checkbox"/> No
Project subject to Public Notice? <input type="checkbox"/> Yes <input type="checkbox"/> No	Indemnification Agreement (IA) required? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Letter of Credit (LOC) required? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Please summarize or attach the following: <ul style="list-style-type: none"> <li>- <input type="checkbox"/> Copy of application form</li> <li>- <input type="checkbox"/> CEQA Analysis Request form</li> <li>- <input type="checkbox"/> GHG Determination (&gt;230MT-CO<sub>2</sub>e/yr? BPS?)</li> <li>- <input type="checkbox"/> Expected date of ATC(s) issuance: _____</li> </ul>	<ul style="list-style-type: none"> <li>- <input type="checkbox"/> IA/LOC received</li> <li>- <input type="checkbox"/> CEQA paragraph sent to permit engineer</li> <li>- <input type="checkbox"/> NOD prepared</li> <li>- <input type="checkbox"/> County filing fees District check prepared</li> <li>- <input type="checkbox"/> Game and Fish fees District check or proof of payment <i>(District check prepared after receiving applicant check)</i></li> <li>- <input type="checkbox"/> CEQA Ready and ok to issue ATC</li> </ul>
Date form is forwarded to Tech. Services SVr:	Date form is forwarded back to permit engineer:





# San Joaquin Valley Air Pollution Control District Supplemental Application Form



## Concrete Batch Plants

*This form must be accompanied by a completed Authority to Construct/Permit to Operate Application form*

PERMIT TO BE ISSUED TO: Dunn's Inc.

LOCATION WHERE THE EQUIPMENT WILL BE OPERATED: 7763 Avenue 280, Visalia, CA 93277

### EQUIPMENT DESCRIPTION

<b>Batch Plant Data</b>	Manufacturer (if applicable): CON-E-CO	
	Model Number (if applicable):	
	Maximum Rated Horsepower of all electric motors: 25 hp	
	Is the operation powered by an internal combustion engine? <input checked="" type="checkbox"/> No [ ] Yes (Note: If engine is rated at greater than 50 hp an IC Engine Supplemental Application form is required.)	
<b>Cement Silo(s) Data</b>	Total Number of Silos: 1	Volume of each silo: 2260 cu. ft. gal or ft <sup>3</sup> (circle one)
	Type of filter: [ ] Fabric Filter <input checked="" type="checkbox"/> Cartridge Filter [ ] Other (please specify):	
<b>Fly Ash Silo(s) Data</b>	Total Number of Silos: 1	Volume of each silo: 2260 cu. ft. gal or ft <sup>3</sup> (circle one)
	Type of filter: [ ] Fabric Filter <input checked="" type="checkbox"/> Cartridge Filter [ ] Other (please specify):	
<b>Silo Control</b>	<input checked="" type="checkbox"/> Yes (Baghouse/Dust Collector supplemental application required) [ ] No	

### PROCESS DESCRIPTION

<b>Maximum Cement Silo Loading Throughput</b>	8.5 ton/hr	67.8 ton/day	21,150 ton/yr
<b>Maximum Cement Silo Unloading Throughput</b>	8.5 ton/hr	67.8 ton/day	21,150 ton/yr
<b>Maximum Fly Ash Silo Loading Throughput</b>	8.5 ton/hr	67.8 ton/day	21,150 ton/yr
<b>Maximum Fly Ash Silo Unloading Throughput</b>	8.5 ton/hr	67.8 ton/day	21,150 ton/yr
<b>Maximum Aggregate Throughput</b>	66.1 ton/hr	528.8 ton/day	165,000 ton/yr
<b>Maximum Sand Throughput</b>	66.1 ton/hr	528.8 ton/day	165,000 ton/yr
<b>Maximum Concrete Output</b>	40.1 yd <sup>3</sup> /hr	320.5 yd <sup>3</sup> /day	100,000 yd <sup>3</sup> /yr
<b>Provide an Equipment Listing, Site Plan, and Material Flow Chart</b> (on a separate sheet of paper)	a) Provide an equipment listing to include the manufacturer and model number of all major components. b) Provide a typical Site Plan for a maximum throughput scenario (include all process, control, and transfer equipment). c) Provide a Material Flow Chart for a maximum throughput scenario. (Include all process, control, and transfer equipment, their types, and their maximum ratings. Also include transfer points, stockpiles, and air pollution control methods.		



### PROCESS DESCRIPTION (Continued)

<b>Is this a “Wet Mix” type plant?</b>	[ ] Yes [ ] No	<b>Is this a “Transient Mix” dry type plant?</b>	[ ] Yes [ ] No
<b>Mechanical Cement Transfer Points</b>	Number of Points: _____	Quantity of transfer points controlled by: [ ] Fabric Filter [X] Bin Vent Filter [ ] Other (please specify) [ ] None	
<b>Pneumatic Cement Transfer Points</b>	Number of Points: _____	Quantity of transfer points controlled by: [ ] Fabric Filter [X] Bin Vent Filter [ ] Other (please specify) [ ] None	
<b>Cement Weigh Hopper Transfer Points</b>	Number of Points: _____	Quantity of transfer points controlled by: [ ] Fabric Filter [X] Bin Vent Filter [ ] Other (please specify) [ ] None	
<b>Mechanical Fly Ash Transfer Points</b>	Number of Points: _____	Quantity of transfer points controlled by: [ ] Fabric Filter [X] Bin Vent Filter [ ] Other (please specify) [ ] None	
<b>Pneumatic Fly Ash Transfer Points</b>	Number of Points: _____	Quantity of transfer points controlled by: [ ] Fabric Filter [X] Bin Vent Filter [ ] Other (please specify) [ ] None	
<b>Fly Ash Weigh Hopper Transfer Points</b>	Number of Points: _____	Quantity of transfer points controlled by: [ ] Fabric Filter [X] Bin Vent Filter [ ] Other (please specify) [ ] None	
<b>Mechanical Aggregate Transfer Points</b>	Number of Points: _____	Quantity of transfer points controlled by: [ ] Fabric Filter [X] Bin Vent Filter [ ] Water Spray [ ] Other [ ] None	
<b>Mechanical Sand Transfer Points</b>	Number of Points: _____	Quantity of transfer points controlled by: [ ] Fabric Filter [X] Bin Vent Filter [ ] Other (please specify) [ ] None	
<b>Sand and Aggregate Weigh Hopper Transfer Points</b>	Number of Points: _____	Quantity of transfer points controlled by: [ ] Fabric Filter [X] Bin Vent Filter [ ] Water Spray [ ] Other [ ] None	
<b>Concrete Transfer Points (Truck Loading)</b>	Number of Points: _____	Quantity of transfer points controlled by: [ ] Fabric Filter [X] Bin Vent Filter [ ] Water Spray [ ] Shroud [ ] None	

### PLANT LAYOUT DESCRIPTION

<b>Total Area of Unpaved Roads within the Plant</b>	Area: _____ acre or ft <sup>2</sup> (circle one)	Type of control: [ ] Water [ ] Oil/Dust Palliate [ ] Other (please specify):
<b>Total Area of Aggregate Piles within the Plant</b>	Area: _____ acre or ft <sup>2</sup> (circle one)	Type of control: [ ] Water [ ] Physical Covering [ ] Retaining Walls [ ] Other (please specify):

### HEALTH RISK ASSESSMENT DATA

<b>Operating Hours</b>	Maximum Operating Schedule: <u>14</u> hours per day, and <u>4,368</u> hours per year		
<b>Receptor Data</b>	Distance to nearest Residence	<u>1,000</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest apartment, house, dormitory, etc.
	Direction to nearest Residence	<u>East</u>	Direction from the stack to the receptor, i.e. North or South.
	Distance to nearest Business	<u>2,000</u> feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest office building, factory, store, etc.
	Direction to nearest Business	<u>East</u>	Direction from the stack to the receptor, i.e. North or South.
<b>Stack Parameters</b>	Release Height	_____ feet above grade	
	Stack Diameter	_____ inches at point of release	
	Rain Cap	[ ] Flapper-type [ ] Fixed-type [ ] None [ ] Other:	
	Direction of Flow	[ ] Vertically Upward [ ] Horizontal [ ] Other: _____ ° from vert. or _____ ° from horiz.	
<b>Exhaust Data</b>	Flowrate: _____ acfm	Temperature: _____ °F	
<b>Facility Location</b>	[ ] Urban (area of dense population) [X] Rural (area of sparse population)		

Describe any additional air pollution control equipment or technologies, including control efficiencies, on a separate sheet and submit it along with this form.

### FOR DISTRICT USE ONLY

<b>Date:</b>	<b>FID:</b>	<b>Project:</b>	<b>Public Notice: Y N</b>
<b>Comments:</b>			





San Joaquin Valley Air Pollution Control District  
Supplemental Application Form



## PROCESSES SERVED BY A BAGHOUSE/DUST COLLECTOR

*This form must be accompanied by a completed Authority to Construct/Permit to Operate Application form*

PERMIT TO BE ISSUED TO:

Dunn's Inc.

LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:

7763 Avenue 280, Visalia, CA 93277

### BAGHOUSE/DUST COLLECTOR DESCRIPTION

<b>Baghouse/Dust Collector Data</b>	Manufacturer: CON-E-CO		
	Model No.: PJ-980D		Serial No.:
	PM <sub>10</sub> Control Efficiency: 99.9 (%) (if available from the manufacturers guarantee)		
	Exhaust PM <sub>10</sub> Emission Concentration(gr/dscf): (if available from the manufacturers guarantee)		
	Differential Pressure Gage [ ] Yes [ ] No	Manufacturer's Recommended Differential Pressure Operating Range: _____ to _____ inches W.C.	
<b>Filter Data</b>	Type: [x] Bag/Tube [ ] Cartridge [ ] Envelope [ ] HEPA/Flat [ ] Sock Filter [ ] Other: _____		
	Fabric: [ ] Cotton [ ] Polypropylene [ ] Polyester [ ] Fiberglass [ ] Nomex [ ] Teflon [ ] Other: _____		
	Number of Bags/Filters: 66		Total Cloth Area: 980 (sq. ft.)
	Diameter or Width of Bag/Filter: 6 (in.)		Length of Bag/Filter: 120 (in.)
	Filter Cleaning Method: [ ] Mechanical Shaker [ ] Reverse Air Flow [x] Pulse Jet		
<b>Blower/Fan Data</b>	Manufacturer:		Model No.
	Power Rating: 15 (Horsepower)		Air Flow Rate: 5880 (dscfm)

### PROCESS INFORMATION

Process served by baghouse/duct collector: Concrete Mixer Truck
Type of material collected by the baghouse/dust collector: concrete/fly ash and aggregate dust
Maximum quantity of material collected by the baghouse/dust collector: 0.23 lb/day
Maximum process weight for operation served by the baghouse/dust collector: 596.6 tons/day
<i>Please note, each permit is required by District Rule 2201 to have a daily emission limit (DEL). The information provided above for maximum process rate and operating schedule may be used as an enforceable limiting condition for each Authority to Construct or Permit to Operate that will be issued for the proposed project.</i>



## EQUIPMENT SERVED BY THE BAGHOUSE/DUST COLLECTOR

<b>Description</b> Indicate the type of equipment that will be served by the baghouse/dust collector, such as: Rip saw, drill, router, hammermill, grain cleaner, storage bin, etc. (attach additional sheets if needed).	<b>Manufacturer</b>	<b>Model No.</b>	<b>Power Rating (Horsepower) or Storage Capacity (Cubic Feet)</b>  Indicate the horsepower rating if the equipment is powered by an electric motor or indicate the maximum storage capacity if the equipment is a storage bin/silo.
Concrete Mixer Truck			

## HEALTH RISK ASSESSMENT DATA

<b>Operating Hours</b>	Maximum Operating Schedule: _____ hours per day, and _____ hours per year		
	<input checked="" type="checkbox"/> Outdoors <input type="checkbox"/> Indoors (if indoors, see note 1)		
<b>Receptor Data</b>	Distance to nearest Residence	_____ feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest apartment, house, dormitory, etc.
	Direction to nearest Residence	_____	Direction from the stack to the receptor, i.e. Northeast or South.
	Distance to nearest Business	_____ feet	Distance is measured from the proposed stack location to the nearest boundary of the nearest office building, factory, store, etc.
	Direction to nearest Business	_____	Direction from the stack to the receptor, i.e. North or Southwest.
<b>Stack Parameters</b>	Release Height	_____ feet above grade	
	Stack Diameter	_____ inches at point of release	
	Rain Cap	<input type="checkbox"/> Flapper-type <input type="checkbox"/> Fixed-type <input type="checkbox"/> None <input type="checkbox"/> Other: _____	
	Direction of Flow	<input type="checkbox"/> Vertically Upward <input type="checkbox"/> Horizontal <input checked="" type="checkbox"/> Other: <span style="color: blue;">Downward</span> _____° from vert. or _____° from horiz.	
<b>Exhaust Data</b>	Flowrate: _____ acfm	Temperature: _____ °F	
<b>Facility</b>	<input type="checkbox"/> Urban (area of dense population) <input checked="" type="checkbox"/> Rural (area of sparse population)		



September 6, 2019

Dunn's Inc.  
303 N. Ben Maddox Way  
Visalia, 93292

Attention: Mark Dunn

Subject: San Joaquin Valley APCD Concrete and Asphalt Recycling Plant Permit  
Application

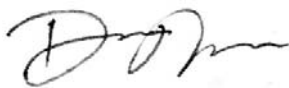
Dear Mark:

Enclosed is your copy and the original permit application package for your concrete and asphalt recycling plant with San Joaquin Valley APCD.

Please sign the originals and forward the original to the San Joaquin Valley APCD, along with a check in the amount of \$87.00 to cover the filing fee. In addition, every applicant who files an application for an Authority to Construct or a Permit to Operate with the District shall pay an engineering evaluation fee for the processing of the application. The fee shall be calculated using the staff hours expended and the prevailing weighted labor rate. All filing fees paid shall be credited towards the evaluation fee.

If you have any questions, please feel free to call me at (562) 495-5777.

Sincerely,



Diana Nguyen  
Alta Environmental



September 6, 2019

San Joaquin Valley Air Pollution Control District  
1900 East Gettysburg Avenue  
Fresno, CA 93726-0244

Attention: Permit Services

Subject: Dunn's Inc.  
Concrete and Asphalt Recycling Plant Permit Application

Attached you will find the application package which covers the permit to construct for Dunn's Inc. concrete and asphalt recycling plant. You will also find a check in the amount of \$87.00 to cover the filing fees.

We trust the information provided will allow you to complete your evaluation. If you have any questions, please feel free to give us a call at (562) 495-5777.

Best Regards,



Diana Nguyen  
Alta Environmental

cc: Mark Dunn, Dunn's Inc.





Alta Environmental an NV5 Company  
3777 Long Beach Boulevard, Annex Building  
Long Beach, CA 90807  
T: (562) 495-5777 F: (562) 495-5877

## FEE SCHEDULE WORK SHEET

(For Permit Processing in Accordance With Rule 3010)

Permits to be issued to: Dunn's Inc.

Address: 303 N. Maddox Way

City, State, Zip: Visalia, CA 93292

Quantity of Identical Units	Equipment/Process	Fee Schedule	Permit Application Fee	=	Total
1	Concrete & asphalt recycling	--	\$87.00	=	\$87.00
		--		=	

Total Permit Processing Fee Due \$87.00

Comments:

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APPLICATION TO THE  
SAN JOAQUIN VALLEY AIR  
POLLUTION CONTROL DISTRICT

1900 East Gettysburg Avenue  
Fresno, CA 93726-0244

**PERMIT TO CONSTRUCT FOR A  
CONCRETE AND ASPHALT RECYCLING  
PLANT**

**Prepared For:**

Dunn's Inc.  
303 N. Ben Maddox Way  
Visalia, CA 93292

Project No.: DUNN-19-8904  
Contact: Diana Nguyen  
Date: July 23, 2019

**Alta Environmental an NV5 Company**  
3777 Long Beach Boulevard Annex Building  
Long Beach, CA 90807 United States of America  
T: 562-495-5777 F: 562-495-5877  
[www.altaenviron.com](http://www.altaenviron.com)



## **SUMMARY**

Dunn's Inc. is requesting a Permit to Construct a stationary concrete and asphalt recycling plant. This plant will be powered by electric grid power. This application will show that the emissions are less than the District's Rule 2201 (4.5.3) annual thresholds therefore exempting the plant from offsets. The plant emissions are below the District's Rule 2201 (5.4) daily public notice thresholds for all pollutants.

This plant will be equipped with the Best Available Control Technology (BACT) in compliance with the District's New Source Review Regulation.



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Figure 1	–	Flow Diagram
"A"	–	AP-42 Emission Factors (Table 11.19.2-2)





## **PART I – PROJECT DESCRIPTION**

### **A. Business Background**

1. Name  
Dunn's Inc.
2. Owner  
Dunn's Inc.  
303 N. Ben Maddox Way  
Visalia, CA 93292
3. Contact  
Mark Dunn  
(559) 734-5373
4. Entitlement  
Equipment to be owned and operated by  
Dunn's Equipment, Inc.
5. Business Description  
Concrete and Asphalt Recycling Plant

### **B. Type of Application**

Permit to Construct

### **C. Description of Facility**

1. Location  
7763 Avenue 280  
Visalia, CA 93277
2. General Purpose of Facility  

The concrete and asphalt recycling operation will consist of accepting broken concrete and asphalt from contractors. The concrete and asphalt will be crushed into recycled base rock.



#### **D. Description of Process**

##### **1. General Description of each Process Line**

###### **a.) Concrete and Asphalt Recycling Plant**

The concrete and asphalt recycling operation will consist of accepting broken concrete and asphalt from contractors. The concrete and asphalt will be crushed into recycled base. It is anticipated that 30,000 tons of recycled base will be produced per year and delivered from the site.

##### **2. Maximum Production Schedule**

The concrete and asphalt recycling plant will produce a maximum of 96.2 tons of recycled base rock per day and 30,000 tons per year.





3. Equipment List and Horsepower Schedule

Item	Description	HP
1	Impact Crusher Powerscreen 320SR Tier 4	345
2	Stacker Powerscreen M95 Tier 4	73

**E. Control Equipment**

1. Particulate Matter Control

The District New Source Review Regulation specifies that new equipment will be in compliance with the BACT guidelines.

Material will be kept sufficiently moist to control particulate via the use of water spray.



## **PART II – REGULATORY ANALYSIS**

### **A. Analysis of Emissions Restrictions**

District prohibitory rules limit the emissions of various pollutants from all sources in the District. The specific rules that apply to the proposed project are discussed below. The limitations in these rules will be met through the application of BACT. BACT requirements are discussed in detail in Section "B" of this part of the application.

#### **1. Fugitive Dust**

No person shall perform any outdoor handling, storage and transport of bulk materials unless the appropriate control measures are sufficiently implemented to limit visible dust emissions to 20% opacity as set forth in Rule 8031 and Table 8031-1. Compliance with the rule will be achieved through the use of water.

#### **2. Rule 4101 Visible Emissions**

The opacity of visible emissions will be limited by Rule 4101 not to exceed No. 1 of the United States Bureau of Mines Ringelmann Chart, or to the equivalent opacity. Ringelmann No. 1 corresponds to 20% opacity. Since BACT will limit opacity of 5%, compliance with Rule 4101 will be achieved.

#### **3. Rule 4001 New Source Performance Standards (NSPS)**

This facility is subject to the requirements of NSPS Subpart OOO, Nonmetallic Mineral Processing Plants. This facility will demonstrate compliance with the performance standards of Subpart OOO within 60 days of reaching maximum production, but no later than 180 days after start-up.

All affected facilities are manufactured after April 22, 2008, therefore are subject to 7% opacity for belts and screens and 12% opacity for belt conveyors.



4. Rule 4102 Public Nuisance

No person shall discharge from any source whatsoever such quantities of air contaminants or other materials that cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger to comfort, repose, health or safety of any such person or the public, or which cause or have a natural tendency to cause injury or damage to business or property.

This operation is not expected to produce a public nuisance or annoyance.

5. Federally-Mandated Operation Permit

Since this facility's potential emissions do not exceed any major source thresholds per year per Rule 2201, this facility is not a major source, and Rule 2520 does not apply (See Part III (D) of the application).

**B. Analysis of New Source Review Requirements/BACT**

In accordance with the requirements of Rule 2201.4.1, (BACT), Dunn's Inc has identified the BACT measures that apply to the facility.

1. Aggregate Processing

Water fog sprays will be used to minimize particulate emissions from Crushing and Screening.

2. Transfer Point

Water sprays will be used to minimize particulate emissions from transfer points between conveyors and other loading operations when necessary.





**C. Offsets**

Since this facility is below the offset threshold as in Rule 2201, Section 4.5.3, no offsets will be required (See Part III (C) of the application).

**D. Public Notification**

None of the daily emissions from criteria pollutants will be above 100 pounds per day. Therefore, public notice will not be necessary according to Rule 2201, Section 5.4 (See Part III (C) of the application).





### PART III – ESTIMATED EMISSIONS

#### A. Emissions Estimates for Concrete and Asphalt Recycling Plant

The emissions estimates for the Concrete and Asphalt Recycling Plant were calculated below. The emissions factors were taken from EPA AP-42 Table 11.19.2-2 (Refer to Attachment "A").

##### *Concrete and Asphalt Processing*

Emission Point	Description	Throughput (tons/hour)	×	PM <sub>10</sub> Emissions Factor (lbs/ton)	=	PM <sub>10</sub> (lbs/hour)
1	Loader to Impact Crusher	15.6		0.000046		0.0007
2	Impact Crusher	15.6		0.00054		0.0084
3	Impact Crusher to Stacker	15.6		0.000046		0.0007
4	Stacker to Stockpiles	15.6		0.000046		0.0007
		Total PM <sub>10</sub> Emissions (lb/hour)				0.0106
		Rubble Throughput (tons/hour) ÷				15.6
		Plant PM <sub>10</sub> Emission Factor (lbs/ton)				6.79E-4

Aggregate Throughput	×	PM <sub>10</sub> Emissions Rate (lbs/ton)	=	PM <sub>10</sub> Emissions
96.2 tons/day		6.79E-4		0.07 lbs/day
30,000 tons/year		6.79E-4		20.4 lbs/year





## A. Emissions Estimates for Concrete and Asphalt Recycling Plant (continued)

### Stockpiling

$$\begin{array}{rclclcl}
 \text{Annual Throughput} & \times & \text{PM}_{10} \text{ Emission Factor (lb/ton)} & = & \text{Annual Emissions (lb/year)} & = & \text{Annual Emissions (ton/year)} \\
 30,000 & & 0.0165 & & 643.5 & & 0.32 \\
 \\ 
 \text{Annual Emissions (lb/year)} & \div & \text{Operating Schedule (days/yr)} & = & \text{PM}_{10} \text{ Daily Emissions (lb/day)} \\
 643.5 & & 312 & & 2.06
 \end{array}$$

## B. Stockpiles

There will be a total of 0.5 acres of stockpile area. In accordance with San Joaquin Valley aggregate plant processing policy SSP-1610-10, 80% control will be used for water.

$$\begin{array}{rclclcl}
 \text{Total (Acres)} & \times & \text{PM}_{10} \text{ Emission Factor (lb/acre-day)} & \times & \text{Control Factor} & = & \text{PM}_{10} \text{ Daily Emissions (lb/day)} \\
 0.5 & & 5.27 & & 0.2 & & 0.527 \\
 \\ 
 \text{Daily PM}_{10} \text{ Emissions (lb/day)} & \times & \text{Operating Schedule (days/yr)} & = & \text{PM}_{10} \text{ Yearly Emissions (lb/yr)} & = & \text{PM}_{10} \text{ Daily Emissions (tons/yr)} \\
 0.527 & & 365 & & 192 & & 0.096
 \end{array}$$





**C. Facility Emissions Summary/Emissions Rule Evaluation**

Pollutant	Aggregate Emissions (lbs/day)	+	Stockpile (lbs/day)	=	Overall Emissions (lbs/day)	≤	Rule 2201 5.4 Public Notice Limit (lbs/day)
PM <sub>10</sub>	2.13		0.53		2.66	<	100

Pollutant	Aggregate Emissions (lbs/year)	+	Stockpile (lbs/yr)	=	Overall Emissions (lbs/year)	=	Overall Emissions (tons/year)	≤	Rule 2201 4.5.3 Offset Limits (tons/year)
PM <sub>10</sub>	663.9		192		885.9		0.43	<	14.6



#### **PART IV – ANALYSIS OF PERMIT RESTRICTIONS**

Anticipated production and fuel limits are listed below:

Concrete and asphalt processing through the plant should be limited to 96.2 tons per day and 30,000 tons per year.





## **ATTACHMENT "A"**

### **AP-42 EMISSION FACTORS (TABLE 11.19.2-2)**



Table 11.19.2-2 (English Units). EMISSION FACTORS FOR CRUSHED STONE PROCESSING OPERATIONS (lb/Ton)<sup>a</sup>

Source <sup>b</sup>	Total Particulate Matter <sup>r,s</sup>	EMISSION FACTOR RATING	Total PM-10	EMISSION FACTOR RATING	Total PM-2.5	EMISSION FACTOR RATING
Primary Crushing (SCC 3-05-020-01)	ND		ND <sup>n</sup>		ND <sup>n</sup>	
Primary Crushing (controlled) (SCC 3-05-020-01)	ND		ND <sup>n</sup>		ND <sup>n</sup>	
Secondary Crushing (SCC 3-05-020-02)	ND		ND <sup>n</sup>		ND <sup>n</sup>	
Secondary Crushing (controlled) (SCC 3-05-020-02)	ND		ND <sup>n</sup>		ND <sup>n</sup>	
Tertiary Crushing (SCC 3-050030-03)	0.0054 <sup>d</sup>	E	0.0024 <sup>o</sup>	C	ND <sup>n</sup>	
Tertiary Crushing (controlled) (SCC 3-05-020-03)	0.0012 <sup>d</sup>	E	0.00054 <sup>p</sup>	C	0.00010 <sup>q</sup>	E
Fines Crushing (SCC 3-05-020-05)	0.0390 <sup>e</sup>	E	0.0150 <sup>e</sup>	E	ND	
Fines Crushing (controlled) (SCC 3-05-020-05)	0.0030 <sup>f</sup>	E	0.0012 <sup>f</sup>	E	0.000070 <sup>q</sup>	E
Screening (SCC 3-05-020-02, 03)	0.025 <sup>c</sup>	E	0.0087 <sup>l</sup>	C	ND	
Screening (controlled) (SCC 3-05-020-02, 03)	0.0022 <sup>d</sup>	E	0.00074 <sup>m</sup>	C	0.000050 <sup>q</sup>	E
Fines Screening (SCC 3-05-020-21)	0.30 <sup>g</sup>	E	0.072 <sup>g</sup>	E	ND	
Fines Screening (controlled) (SCC 3-05-020-21)	0.0036 <sup>g</sup>	E	0.0022 <sup>g</sup>	E	ND	
Conveyor Transfer Point (SCC 3-05-020-06)	0.0030 <sup>h</sup>	E	0.00110 <sup>h</sup>	D	ND	
Conveyor Transfer Point (controlled) (SCC 3-05-020-06)	0.00014 <sup>i</sup>	E	4.6 x 10 <sup>-5i</sup>	D	1.3 x 10 <sup>-5q</sup>	E
Wet Drilling - Unfragmented Stone (SCC 3-05-020-10)	ND		8.0 x 10 <sup>-5j</sup>	E	ND	
Truck Unloading - Fragmented Stone (SCC 3-05-020-31)	ND		1.6 x 10 <sup>-5j</sup>	E	ND	
Truck Loading - Conveyor, crushed stone (SCC 3-05-020-32)	ND		0.00010 <sup>k</sup>	E	ND	

a. Emission factors represent uncontrolled emissions unless noted. Emission factors in lb/Ton of material of throughput. SCC = Source Classification Code. ND = No data.

b. Controlled sources (with wet suppression) are those that are part of the processing plant that employs current wet suppression technology similar to the study group. The moisture content of the study group without wet suppression systems operating (uncontrolled) ranged from 0.21 to 1.3 percent, and the same facilities operating wet suppression systems (controlled) ranged from 0.55 to 2.88 percent. Due to carry over of the small amount of moisture required, it has been shown that each source, with the exception of crushers, does not need to employ direct water sprays. Although the moisture content was the only variable measured, other process features may have as much influence on emissions from a given source. Visual observations from each source under normal operating conditions are probably the best indicator of which emission factor is most appropriate. Plants that employ substandard control measures as indicated by visual observations should use the uncontrolled factor with an appropriate control efficiency that best reflects the effectiveness of the controls employed.

c. References 1, 3, 7, and 8

d. References 3, 7, and 8



- e. Reference 4
- f. References 4 and 15
- g. Reference 4
- h. References 5 and 6
- i. References 5, 6, and 15
- j. Reference 11
- k. Reference 12
- l. References 1, 3, 7, and 8
- m. References 1, 3, 7, 8, and 15
- n. No data available, but emission factors for PM-10 for tertiary crushers can be used as an upper limit for primary or secondary crushing
- o. References 2, 3, 7, 8
- p. References 2, 3, 7, 8, and 15
- q. Reference 15
- r. PM emission factors are presented based on PM-100 data in the Background Support Document for Section 11.19.2
- s. Emission factors for PM-30 and PM-50 are available in Figures 11.19.2-3 through 11.19.2-6.

Note: Truck Unloading - Conveyor, crushed stone (SCC 3-05-020-32) was corrected to Truck Loading - Conveyor, crushed stone (SCC 3-05-020-32). October 1, 2010.

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# San Joaquin Valley Air Pollution Control District

[www.valleyair.org](http://www.valleyair.org)



## Checklist for Permit Applications:

To avoid unnecessary delays, please review the following checklist before submitting your Authority to Construct/Permit to Operate Application.

Checklist for Complete Applications (include the following)	
	1. A signed Authority to Construct/Permit to Operate Application.
	2. Include a site map that identifies the location(s) where the new/modified unit(s) will operate and the approximate property lines. This is required for any proposal for new equipment, an increase in emissions from existing units, or change in location of emission points.
	3. Any applicable supplemental application forms. Supplemental application forms can be found here: <a href="http://www.valleyair.org/busind/pto/ptoforms/1ptoformidx.htm">http://www.valleyair.org/busind/pto/ptoforms/1ptoformidx.htm</a>
	4. Equipment listing (including a list of electric motors with hp rating).
	5. Include a short project description, including a process flow schematic identifying emission points.
	6. Process parameters (describe throughput, operating schedule, fuel rate, raw material usage, etc.).
	7. Identify control equipment/technology.
	8. Any additional information required to calculate emissions.
	9. \$87 filing fee for each permit unit. <i>Note: Permit application processing time will be billed at the applicable District hourly labor rate</i>

Detailed Authority to Construct (ATC) and Permit to Operate (PTO) Application Instructions can be found here:

PDF Format: <http://www.valleyair.org/busind/pto/ptoforms/atcappinstruct.pdf>

Word Format: <http://www.valleyair.org/busind/pto/ptoforms/WordDocs/atcappinstruct.doc>

Applications may be submitted either by mail or in person at any of the regional offices listed below. The District is pleased to provide businesses with assistance in all aspects of the permitting process. Any business is welcome to call the **Small Business Assistance (SBA) Hotline** or to visit the SBA Office located in each of the regional offices. No appointment is necessary. For more information, please call the SBA Hotline serving the county in which your business is located.

**Northern Region Office**  
(Serving San Joaquin, Stanislaus, and Merced Counties):

4800 Enterprise Way  
Modesto, California 95356-8718  
(209) 557-6400  
FAX: (209) 557-6475  
**SBA Hotline: (209) 557-6446**

**Central Region Office**  
(Serving Madera, Fresno, and Kings Counties):

1990 E Gettysburg Avenue  
Fresno, California 93726-0244  
(559) 230-5900  
FAX: (559) 230-6061  
**SBA Hotline: (559) 230-5888**

**Southern Region Office**  
(Serving Tulare and Kern Counties):

34946 Flyover Court  
Bakersfield, California 93308  
(661) 392-5500  
FAX: (661) 392-5585  
**SBA Hotline: (661) 392-5665**



[illegible]

DATE STAMPS	FILING FEE RECEIVED:\$	CHECK #:	DATE PAID:
	PROJECT #:	FACILITY ID #:	

Revised: July 2019



# San Joaquin Valley Air Pollution Control District Supplemental Application Form

## CEQA Information

The San Joaquin Valley Air Pollution Control District (District) is required by state law, the California Environmental Quality Act (CEQA), to review discretionary permit project applications for potential air quality and other environmental impacts. This form is a screening tool to assist the District in clarifying whether or not the project has the potential to generate significant adverse environmental impacts that might require preparation of a CEQA document (CEQA Guidelines §15060(a)).

PERMIT TO BE ISSUED TO:
LOCATION WHERE THE EQUIPMENT WILL BE OPERATED:

<b>Section 1:</b>				<b>Agency Approvals</b>	
		Check "Yes" or "No" as applicable.		Yes	No
1.	Has a Lead Agency prepared an environmental review document (Environmental Impact Review, Mitigated Negative Declaration, Negative Declaration, or Notice of Exemption) for this project?	<input type="checkbox"/> <i>Note 1</i>	<input type="checkbox"/>		
2.	Is a Lead Agency in the process of preparing an environmental review document (Environmental Impact Review, Mitigated Negative Declaration, Negative Declaration, or Notice of Exemption) for this project?	<input type="checkbox"/> <i>Note 1</i>	<input type="checkbox"/>		
<p><i>If "Yes" is checked for <u>either</u> question 1 or 2, please provide the following information:</i></p> <ul style="list-style-type: none"> <li>- Lead Agency name : _____</li> <li>- Name of Lead Agency contact person: _____</li> <li>- Type of CEQA document prepared: _____</li> <li>- Project reference number: _____</li> <li>- <i>If a CEQA Environmental Review document has been prepared for this project, please attach a <b><u>copy of the Notice of Determination or the Notice of Exemption</u></b></i></li> </ul> <p><i>If "No" is checked for <u>both</u> questions 1 and 2, please attach an explanation:</i></p>					

**Note 1: If you answered YES to question 1 OR 2 do not complete Section 2 of this form, and please return the completed form to the Air Pollution Control District.**



**Section 2:****Project Information**

**Note: If you answered YES to question 1 OR 2 of Section 1 do not complete this section, and please return the completed form to the Air Pollution Control District.**

		Yes	No
1.	Would this project result in more than 47 heavy-duty truck (HD) one-way trips per day to and from the facility? (23 heavy-duty truck (HD) round trips per day).	<input type="checkbox"/>	<input type="checkbox"/>
2.	Would this project result in a need for more than 350 new employees?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Would this project result in more than 700 customer trips per day to and from the facility?	<input type="checkbox"/>	<input type="checkbox"/>
4.	Would this project increase the demand for water at the facility by more than 5,000,000 gallons per day?	<input type="checkbox"/>	<input type="checkbox"/>
5.	Would this project require construction of new water conveyance infrastructure <i>Post-project facility water demand exceeding the capacity of local water purveyor.</i>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Would this project create a permanent need for new or additional public services for Solid Waste Disposal or Hazardous Waste Disposal? <i>Post-project waste discharge exceeding the capacity of the local Solid Waste Disposal or Hazardous Waste Disposal.</i>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Would this project result in noticeable off-site odors that have the potential to generate nuisance complaints?	<input type="checkbox"/>	<input type="checkbox"/>
8.	Would this project include equipment with a noise specification greater than 90 decibels (db)?	<input type="checkbox"/>	<input type="checkbox"/>
9.	Has this project generated any known public concern regarding potential adverse impacts? <i>Public concern may be interpreted as concerns by local groups at public meetings, adverse media attention such as negative newspapers or other periodical publications, local news programs, environmental justice issues, etc.</i>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Would this project result in any demolition, excavation, and/or grading/construction activities <u>outside</u> the perimeter of the existing facility?	<input type="checkbox"/>	<input type="checkbox"/>
11.	Would this project result in any demolition, excavating, and/or grading construction activities that encompass an area exceeding 20,000 Square feet ( <u>inside</u> or <u>outside</u> the perimeter of the existing facility)?	<input type="checkbox"/>	<input type="checkbox"/>
12.	Is this project part of a larger development activity at the facility that collectively would result in answering YES to any of the questions listed above?	<input type="checkbox"/>	<input type="checkbox"/>

**FOR DISTRICT USE ONLY – CEQA ANALYSIS REQUEST**

PERMIT	TECHNICAL SERVICES
AQE Name:	AQS Name:
Facility Name:	PAS #: CEQA #:
Facility #: Project #:	Project with potential public concern? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is this an RO project? <input type="checkbox"/> Yes <input type="checkbox"/> No	Detailed CEQA analysis required? <input type="checkbox"/> Yes <input type="checkbox"/> No
Project subject to Public Notice? <input type="checkbox"/> Yes <input type="checkbox"/> No	Indemnification Agreement (IA) required? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Letter of Credit (LOC) required? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Please summarize or attach the following: <ul style="list-style-type: none"> <li>- <input type="checkbox"/> Copy of application form</li> <li>- <input type="checkbox"/> CEQA Analysis Request form</li> <li>- <input type="checkbox"/> GHG Determination (&gt;230MT-CO<sub>2</sub>e/yr? BPS?)</li> <li>- <input type="checkbox"/> Expected date of ATC(s) issuance: _____</li> </ul>	<ul style="list-style-type: none"> <li>- <input type="checkbox"/> IA/LOC received</li> <li>- <input type="checkbox"/> CEQA paragraph sent to permit engineer</li> <li>- <input type="checkbox"/> NOD prepared</li> <li>- <input type="checkbox"/> County filing fees District check prepared</li> <li>- <input type="checkbox"/> Game and Fish fees District check or proof of payment <i>(District check prepared after receiving applicant check)</i></li> <li>- <input type="checkbox"/> CEQA Ready and ok to issue ATC</li> </ul>
Date form is forwarded to Tech. Services SVr:	Date form is forwarded back to permit engineer:



## **APPENDIX A.4**

### **GREENHOUSE GAS ANALYSIS**





November 21, 2019

**Re: Greenhouse Gas Analysis for Proposed Dunn, Inc. Project**

To Whom it May Concern,

Greenhouse gas (GHG) emissions from the Proposed Dunn, Inc. Project were calculated using methodology and emission factors from the United States Environmental Protection Agency (USEPA) Emission Factors for Greenhouse Gas Inventories (March 2018) and the California Air Resource Board's (CARB's) EMFAC2017 Model. GHG emissions from the various sources of the project are summarized in the table below. All values are in metric tons per year (mtpy). Detailed emission calculations are provided as an Attachment.

Source	CO2	CH4	N2O	CO2e
HMA Dryer	36,242	1.77	0.35	36,391
HMA Oil Heater	537	0.03	0.01	539
Truck Running Exhaust	79	<0.01	0.01	82
Truck Idling Exhaust	167	<0.01	0.03	175
Off-Road Equipment	692	0.04	0.02	698
Total				37,886

**SIGNATORY**

For and on behalf of Alta Environmental

A handwritten signature in blue ink, appearing to read "C Waller".

Chris Waller  
Director of EHS & Air

Attachments: GHG Emission Calculation Tables

**Alta Environmental | an NV5 Company**

3777 Long Beach Boulevard Annex Building Long Beach CA 90807 United States of America  
T (562) 495 5777 F (562) 495 5877 Toll-free (800) 777-0605 altaenviron.com



## Greenhouse Gas Emission Calculations

### Summary (mtpy)

Source	CO2	CH4	N2O	CO2e
HMA Dryer	36,242	1.77	0.35	36,391
HMA Oil Heater	537	0.03	0.01	539
Truck Running Exhaust	79	0.00	0.01	82
Truck Idling Exhaust	167	0.00	0.03	175
Off-Road Equipment	692	0.04	0.02	698
			Total:	37,886

GWP		
CO2	CH4	N2O
1	25	298

### HMA Dryer

Dryer Heat Input	135	mmBtu/hr
------------------	-----	----------

Pollutant	EF (kg/mmBtu)	EF (kg/hr)	Hours (hr/yr)	Emissions	
				(kg/yr)	(mtpy)
CO2	61.4600	8,297.10	4,368	36,241,733	36,242
CH4	0.0030	0.41	4,368	1,769	2
N2O	0.0006	0.08	4,368	354	0

- [https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors\\_mar\\_2018\\_0.pdf](https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf)

### Oil Heater

Oil Heater Input	2	mmBtu/hr
------------------	---	----------

Pollutant	EF (kg/mmBtu)	EF (kg/hr)	Hours (hr/yr)	Emissions	
				(kg/yr)	(mtpy)
CO2	61.4600	122.92	4,368	536,915	537
CH4	0.0030	0.01	4,368	26	0
N2O	0.0006	0.00	4,368	5	0

- [https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors\\_mar\\_2018\\_0.pdf](https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf)

### Trucks Running

VMT T7	19,808	VMT/yr
VMT T6	45,400	VMT/yr

Pollutant	EF (g/mi)	VMT (VMT/yr)	Emissions	
			(kg/yr)	(mtpy)
T7				
CO2	1,434.53	19,808	28,415.215	28.415
CH4	0.0050	19,808	0.098	0.000
N2O	0.2255	19,808	4.466	0.004
T6				
CO2	1,108.73	45,400	50,336.470	50.336
CH4	0.0109	45,400	0.495	0.000
N2O	0.1743	45,400	7.912	0.008

- EMFAC2017, Scenario Year 2017, EMFAC2007 Categories



### Trucks Idling

Trucks T7	9,904	trucks/yr
Trucks T6	22,700	trucks/yr

Pollutant	EF	Vehicles	Emissions	
	(g/veh)	(veh/yr)	(kg/yr)	(mtpy)
T7				
CO2	14,905.807	9,904	147,627.108	147.627
CH4	0.287	9,904	2.838	0.003
N2O	2.343	9,904	23.205	0.023
T6				
CO2	864.829	22,700	19,631.611	19.632
CH4	0.006	22,700	0.130	0.000
N2O	0.136	22,700	3.086	0.003

- EMFAC2017, Scenario Year 2017, EMFAC2007 Categories

### Off-Road Equipment

#### Emission Factors

	CO2	CH4	N2O	
g/gal	10,210.00	0.57	0.26	
mmbtu/gal	0.138	0.138	0.138	
g/mmbtu	73,985.51	4.13	1.88	
btu/hp-hr	7,000	7,000	7,000	- AP-42
g/hp-hr	517.899	0.029	0.013	

Pollutant	EF	HP	Hours	Emissions	
	(g/hp-hr)	(bhp)	(hr/yr)	(kg/yr)	(mtpy)
Rubber Tired Loader					
CO2	517.899	460	2,496	594,630	594.630
CH4	0.029	460	2,496	33	0.033
N2O	0.013	460	2,496	15	0.015
Skid Steer Loader					
CO2	517.899	75	2,496	96,951	96.951
CH4	0.029	75	2,496	5	0.005
N2O	0.013	75	2,496	2	0.002

- [https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors\\_mar\\_2018\\_0.pdf](https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors_mar_2018_0.pdf)



## **APPENDIX A.5**

### **AMBIENT AIR QUALITY ASSESSMENT DETERMINATION**



## Ambient Air Quality Analysis Determination

### Construction Emissions

Construction Phase	Working Days	Emissions (tpy)						Emissions (lb/day)					
		ROG	NOx	CO	SO2	PM10	PM2.5	ROG	NOx	CO	SO2	PM10	PM2.5
Site Preparation	10	0.021	0.212	0.111	0.000	0.102	0.060	4.19	42.50	22.28	0.04	20.49	12.02
Grading	30	0.069	0.754	0.492	0.001	0.136	0.082	4.57	50.29	32.81	0.06	9.08	5.45
Building Construction	174	0.386	3.034	2.860	0.009	0.511	0.209	4.43	34.87	32.88	0.10	5.87	2.40
Paving	20	0.035	0.141	0.153	0.000	0.009	0.007	3.55	14.13	15.28	0.03	0.94	0.74
Architectural Coating	20	0.500	0.019	0.045	0.000	0.009	0.003	49.98	1.94	4.49	0.01	0.90	0.32
Max:								49.98	50.29	32.88	0.10	20.49	12.02
Exceeds 100 lb/day?								No	No	No	No	No	No

### Operational Emissions - Permitted

Source	Working Days	Emissions (tpy)						Emissions (lb/day)					
		ROG	NOx	CO	SO2	PM10	PM2.5	ROG	NOx	CO	SO2	PM10	PM2.5
Concrete Batch Plant	312	--	--	--	--	1.440	1.440	--	--	--	--	9.23	9.23
RAP Processing Plant	312	--	--	--	--	0.023	0.023	--	--	--	--	0.15	0.15
HMA Dryer	312	0.820	1.540	9.160	14.430	1.730	1.730	5.26	9.87	58.72	92.50	11.09	11.09
HMA Oil Heater	312	0.012	0.595	0.149	0.214	0.013	0.013	0.08	3.81	0.96	1.37	0.08	0.08
HMA Cold Feed RAP	312	--	--	--	--	0.055	0.055	--	--	--	--	0.36	0.36
HMA Silo Filling	312	0.914	--	0.089	--	0.002	0.002	5.86	--	0.57	--	0.01	0.01
HMA Silo Loadout	312	0.312	--	0.101	--	0.039	0.039	2.00	--	0.65	--	0.25	0.25
HMA Oil Tanks	365	0.511	--	--	--	--	--	2.80	--	--	--	--	--
Total:								15.99	13.69	60.89	93.87	21.17	21.17
Exceeds 100 lb/day?								No	No	No	No	No	No

### Operational Emissions - Unpermitted

Source	Working Days	Emissions (tpy)						Emissions (lb/day)					
		ROG	NOx	CO	SO2	PM10	PM2.5	ROG	NOx	CO	SO2	PM10	PM2.5
HMA Storage Pile	365	--	--	--	--	1.240	1.240	--	--	--	--	6.79	6.79
Concrete Storage Pile	365	--	--	--	--	1.650	1.650	--	--	--	--	9.04	9.04
RAP Storage Pile	365	--	--	--	--	0.320	0.320	--	--	--	--	1.75	1.75
Truck Exhaust	312	0.096	1.177	0.979	0.003	0.008	0.008	0.62	7.55	6.28	0.02	0.05	0.05
Truck Fugitive Dust	312	--	--	--	--	0.207	0.207	--	--	--	--	1.33	1.33
Off Road Equipment	312	0.113	0.243	2.230	--	0.008	0.007	0.73	1.56	14.29	--	0.05	0.05
Total:								1.34	9.10	20.57	0.02	19.02	19.02
Exceeds 100 lb/day?								No	No	No	No	No	No

Total Operations - Permitted and Unpermitted: 17.34 22.79 81.46 93.89 40.19 40.19  
Exceeds 100 lb/day? No No No No No No



## **APPENDIX B**

### **BIOLOGICAL EVALUATION**





# LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

**BIOLOGICAL EVALUATION  
VISALIA CONCRETE/ASPHALT BATCH PLANT PROJECT  
TULARE COUNTY, CALIFORNIA**



Prepared by:

LIVE OAK ASSOCIATES, INC.

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September 20, 2018

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## EXECUTIVE SUMMARY

Live Oak Associates, Inc. (LOA) conducted a biological resources investigation of the Visalia Concrete/Asphalt Batch Plant Project site within unincorporated Tulare County, and evaluated likely impacts to such resources resulting from project implementation. The project consists of the development of a concrete batch plant, concrete and asphalt recycling plant, and hot mix asphalt plant on a 20-acre parcel. On July 17, 2018, LOA ecologist Jeff Gurule surveyed the project site for biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law.

Two land uses/biotic habitats have been identified within the project site, comprising agricultural field and ruderal/developed. Both of these land use/biotic habitats have experienced some level of human disturbance or modification. The project site sits within a region of Tulare County dominated by agricultural uses.

The project site does not provide suitable habitat for locally occurring special status plant species; hence, the proposed project will not impact special status plants. Project impacts will also be less than significant for wildlife movement corridors, natural communities of special concern or other sensitive habitats, downstream water quality, federally regulated waters, and many special status animal species that are absent or unlikely to occur within the project site or that may regularly or occasionally forage within the project site but breed elsewhere. The project does not appear to conflict with the Tulare County General Plan or other local policies.

The Swainson's hawk, loggerhead shrike, tricolored blackbird, and other migratory birds may nest onsite and/or on adjacent lands such that they have the potential to suffer construction related mortality, which would be considered a significant impact of the project. Avoidance of active bird nests identified during preconstruction surveys will ensure that potential impacts to these avian species are reduced to a less than significant level.



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## 1.0 INTRODUCTION

The technical report that follows describes the biotic resources of a 20-acre property (“project site”) that will be impacted by the Visalia Concrete/Asphalt Batch Plant Project (“project”), and evaluates possible impacts to sensitive biological resources that could result from project implementation. The project site is located on the south side of Avenue 280, approximately 0.6 miles west of Highway 99 in rural Tulare County (Figure 1). The project site can be found on the *Goshen* quadrangle in Section 8 of Township 19 south, Range 24 east, Mount Diablo Base and Meridian (Figure 2).

### 1.1 PROJECT DESCRIPTION

The project will consist of a concrete batch plant, concrete and asphalt recycling plant, and hot mix asphalt plant. Construction elements will include grading, installation of asphalt and gravel/decomposed granite surfacing, and the construction of several 40 foot tall silos. A conceptual site plan is presented in Appendix A.

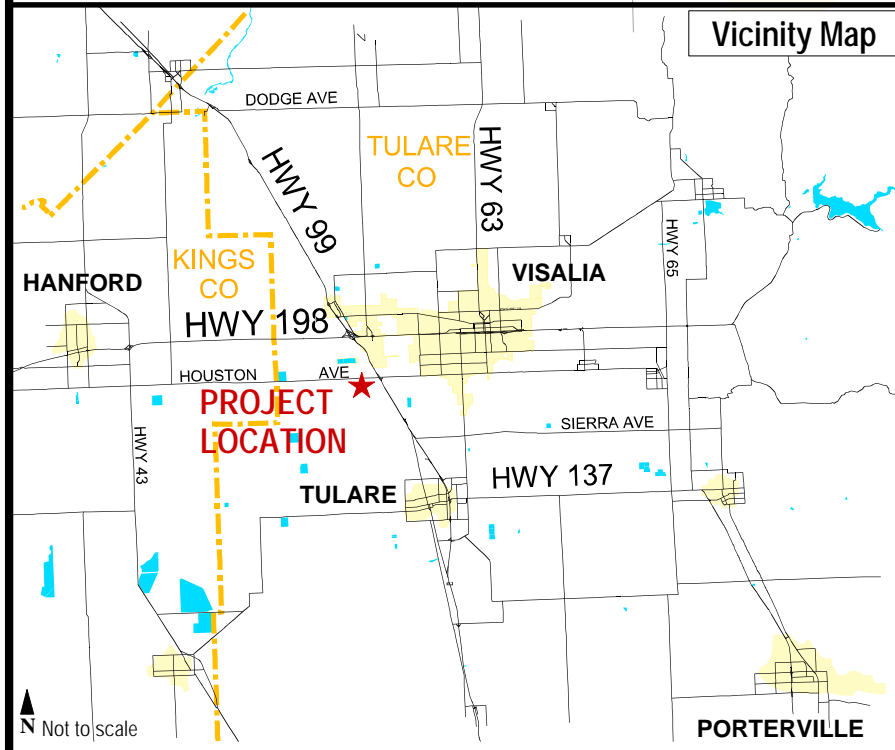
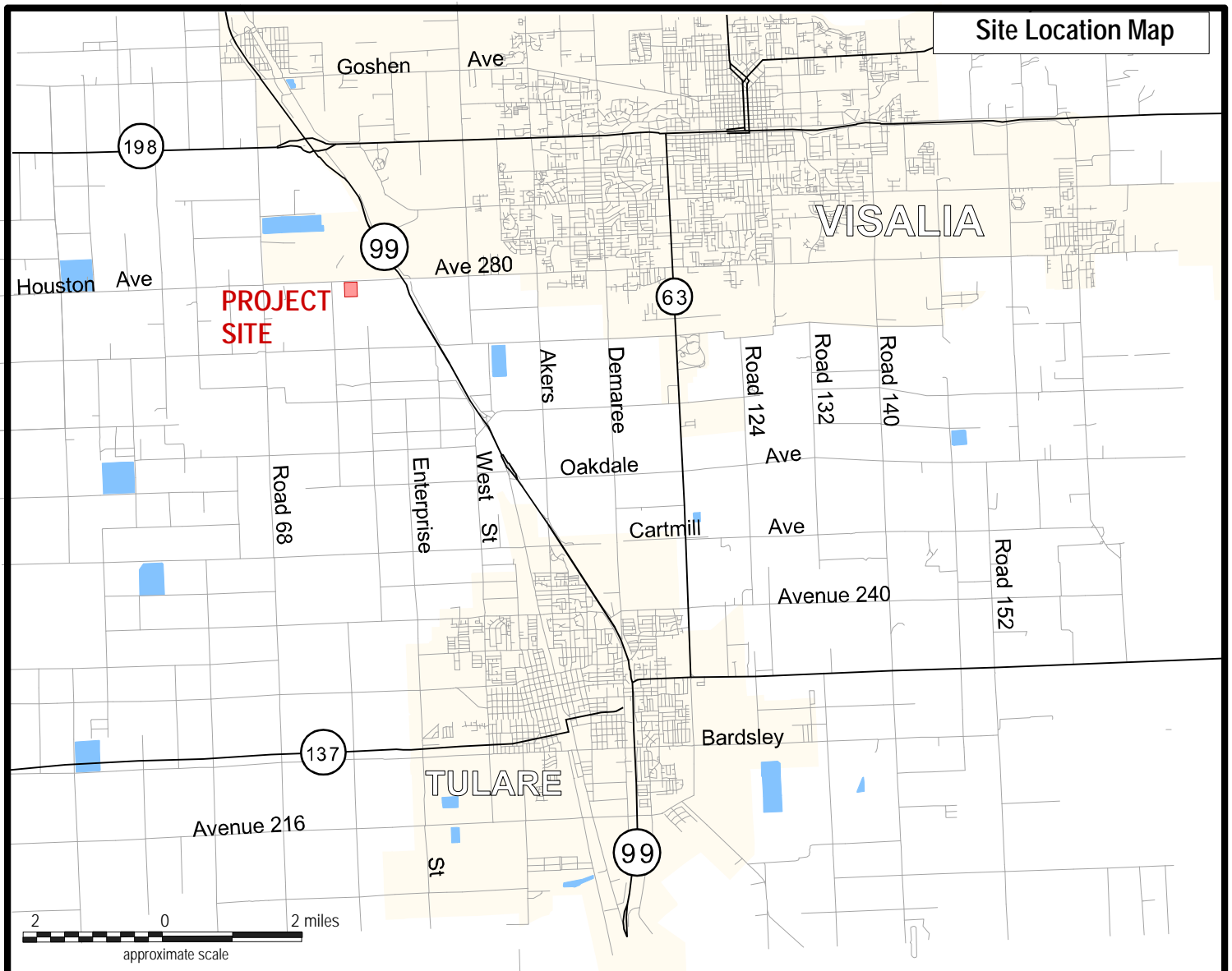
#### **Concrete Batch Plant:**

This operation will consist of a California Air Resources Board approved portable concrete mixing plant to produce ready mix concrete, with associated cement powder storage, aggregate storage (1” x # 4 Rock, 3/8 Rock and Concrete Sand), and batch operations.

Cement and fly ash will be stored in constructed silos. Aggregate will be stored in piles approximately 15’ tall.

***Equipment that will be used:*** A wheel loader will be used to maintain material piles. The crushing plant will be fed with an excavator and wheel loader. A water truck and sprinkler system will be used for dust control.





**Live Oak Associates, Inc.**

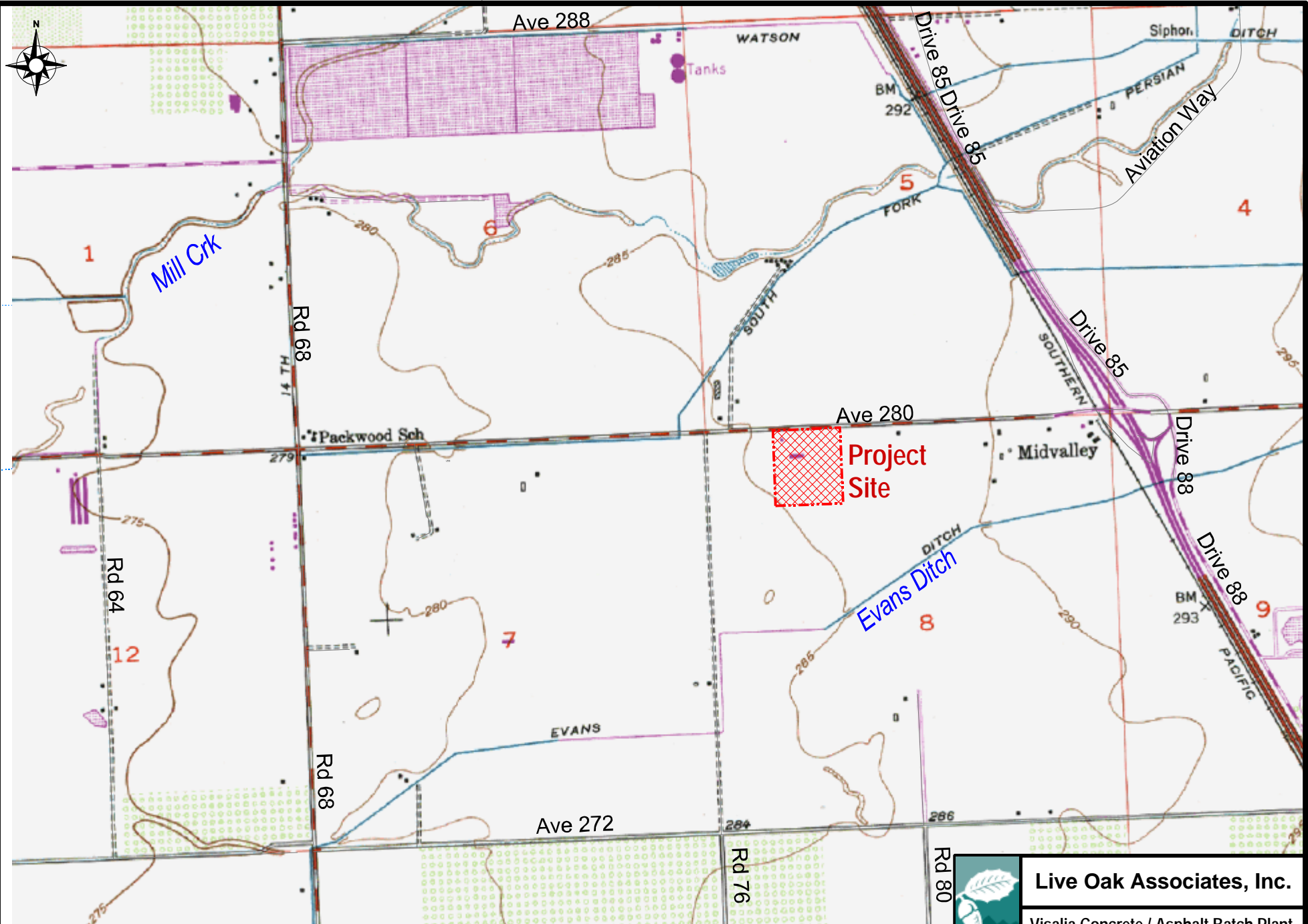
**Visalia Concrete / Asphalt Batch Plant  
Site / Vicinity Map**

Date  
**8/29/2018**

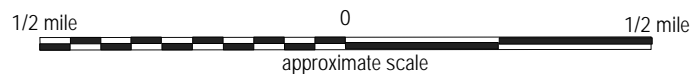
Project #  
**2293-01**

Figure #  
**1**





From USGS  
Goshen 7.5' Quadrangle 1969



**Live Oak Associates, Inc.**

Visalia Concrete / Asphalt Batch Plant  
U.S.G.S. Quadrangle

Date	Project #	Figure #
8/29/2018	2293-01	2



### **Concrete and Asphalt Recycling Plant:**

This is a portable plant that will only be onsite a couple times a year depending on the amount of material accumulated on site. Broken concrete and asphalt will be accepted from contractors and stored in piles approximately 15' tall. The portable crushing plant will be brought on site once there is enough accumulated material to process the material in a cost effective manner and turned into road base to be used on public roadways and parking lots.

***Equipment that will be used:*** A wheel loader will be used to keep the material piled and to feed the aggregate into the plant. A water truck and sprinkler system will be used for dust control.

### **Hot Mix Asphalt Plant:**

This operation will be very similar to the concrete plant except this material will be heated. Aggregates will be brought in and dumped into stockpiles that will be pushed into piles approximately 15' tall with a loader until used in the plant. Oil will be brought in and stored in containers. The plant will produce asphalt by heating up the oil with propane and mixing it with the stockpiled aggregates. The product will be put into a silo until shipped out.

## **1.2 REPORT OBJECTIVES**

Construction of industrial infrastructure may modify biotic habitats used by sensitive plant and wildlife species. As such, site development may be regulated by state or federal agencies, subject to provisions of the California Environmental Quality Act (CEQA), and/or covered by policies and ordinances of Tulare County. This report addresses issues related to: 1) sensitive biotic resources occurring on the project site; 2) the federal, state, and local laws regulating such resources; and 3) mitigation measures that may be required to reduce the magnitude of anticipated impacts and/or comply with permit requirements of state and federal resource agencies. As such, the objectives of this report are to:

- Summarize all site-specific information related to existing biological resources.
- Make reasonable inferences about the biological resources that could occur onsite based on habitat suitability and the proximity of the site to a species' known range.



- Summarize all state and federal natural resource protection laws that may be relevant to site development.
- Identify and discuss project impacts to biological resources likely to occur on the site within the context of CEQA, or any state or federal laws.
- Identify avoidance and mitigation measures that would reduce the magnitude of project impacts in a manner consistent with the requirements of CEQA and that are generally consistent with recommendations of the resource agencies regulating affected biological resources.

### **1.3 STUDY METHODOLOGY**

The analysis of impacts, as discussed in Section 3.0 of this report, is based on the known and potential biotic resources of the project site discussed in Section 2.0. Sources of information used in the preparation of this analysis included: (1) the *California Natural Diversity Data Base* (CDFW 2017), (2) the *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2017), and (3) manuals, reports, and references related to plants and animals of the San Joaquin Valley region. A field survey of the project site was conducted on July 17, 2018 by LOA biologist Jeff Gurule. The survey consisted of walking through the project site while identifying the principal land uses and associated plant and animal species, and mapping habitat suitable for special status species and other sensitive biological resources. A driving survey of surrounding lands was also conducted in order to note land use in the vicinity of the project.



## **2.0 EXISTING CONDITIONS**

### **2.1 REGIONAL SETTING**

The project site is located in a portion of the central San Joaquin Valley that has, for decades, experienced intensive agricultural disturbances. Current agricultural endeavors in the region include orchards, row crops, pasture, and dairies. The project site is situated in rural Tulare County west of the City of Visalia and is surrounded by agricultural lands.

Like most of California, the central San Joaquin Valley has a Mediterranean climate. Warm dry summers are followed by cool moist winters. Summer temperatures commonly exceed 90 to 100 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely rise much above 70 degrees Fahrenheit, with daytime highs often below 60 degrees Fahrenheit. Annual precipitation within the project site is about 11 inches, almost 85% of which falls between the months of October and March. Nearly all precipitation falls in the form of rain. Stormwater readily infiltrates the soils of and surrounding the project site.

The project site is within the lower Kaweah River Delta, whose distributary drainages historically drained into the Tulare Lake. These waterways were historically characterized by extensive riparian, wetland, and aquatic ecosystems that supported large populations of diverse native plants and animals. Agricultural diversions and channel realignments have eliminated much of the original riparian habitat of this river system, and aquatic and wetland habitats have been greatly degraded from agricultural runoff and controlled flows. Tulare Lake has long been drained and converted to farmland and urban uses.

Native plant and animal species once abundant in the region have become locally extirpated or have experienced large reductions in their populations due to conversion of upland, riparian, and aquatic habitats to agricultural and urban uses. Remaining native habitats are particularly valuable to native wildlife species including special status species that still persist in the region.



## **2.2 PROJECT SITE**

The project site consists of a wheat field and a fenced area with crushed asphalt substrate containing a large metal-sided barn, an office building, and a raised water tank. The project site has experienced agriculture-related disturbance since at least 1969. The project site is flat with a mean elevation of 287 feet National Geodetic Vertical Datum (NGVD). The project site contains two soil mapping units: Akers-Akers, saline-Sodic, complex, 0 to 2 percent slopes; and Nord fine sandy loam, 0 to 2 percent slopes. Neither of these soils is considered hydric, meaning they don't have the propensity to support seasonal pools that could provide habitat for sensitive plant or animal species. Furthermore, onsite soils have been significantly disturbed by decades of agricultural practices and other human uses. As a result, the soils of the project site have no particular significance to biological resources potentially occurring on the site.

## **2.2 LAND USES/BIOTIC HABITATS**

Two land uses/biotic habitats have been identified on the project site, comprising agricultural field and ruderal. A list of the vascular plant species observed within the project site and the terrestrial vertebrates using, or potentially using, the site is provided in Appendices B and C, respectively. Selected photographs of the project site are presented in Appendix D. Land uses/biotic habitats of the project site are displayed in Figure 3.

### **2.2.1 Agricultural Field**

Much of the site is an agricultural field most recently planted to wheat. Analysis of historic aerial imagery suggests it is periodically also planted to corn. Aside from the remnant wheat stocks, this field was characterized at the time of the field survey by herbaceous weedy vegetation such as barnyard barley (*Hordeum murinum* ssp. *leporinum*), prostrate knotweed (*Polygonum aviculare*), asthmaweed (*Erigeron bonariensis*), prickly lettuce (*Lactuca serriola*), shepherds purse (*Capsella bursa-pastoris*), lambsquarters (*Chenopodium album*), pigweed amaranth (*Amaranthus albus*), barnyard grass (*Echinochloa crus-galli*), rescue grass (*Bromus catharticus*), and Bermuda grass (*Cynodon dactylon*).



Avenue 280

## LEGEND



Agricultural Field



Ruderal / Developed



Project Boundary

Project Boundary

1/2 mile 0 1/2 mile  
approximate scale

Aerial Photograph Courtesy of Google Earth 2/8/2018



**Live Oak Associates, Inc.**

Visalia Concrete / Asphalt Batch Plant  
Biotic Habitats

Date

8/29/2018

Project #

2293-01

Figure #

3



Regular cultivation of the field limits its value to native wildlife; however, some wildlife species undoubtedly utilize the field. Amphibian use of this habitat is expected to be absent due to the absence of breeding habitat on and adjacent to the site. Reptiles that could occur in the field include the common side-blotched lizard (*Uta stansburiana*), Pacific gopher snake (*Pituophis catenifer catenifer*), and common kingsnake (*Lampropeltis getula*).

Agricultural fields also provide foraging habitat for a number of avian species. Common resident species likely to forage in the agricultural field of the project site include mourning doves (*Zenaida macroura*) (observed), American crows (*Corvus brachyrhynchos*), Brewer's blackbirds (*Euphagus cyanocephalus*), brown-headed cowbirds (*Molothrus ater*), and European starlings (*Sturnus vulgaris*). Summer migrants that would be common in the agricultural field of the project site include the western kingbird (*Tyrannus verticalis*) (observed), while common winter migrants would include the savannah sparrow (*Passerella sandwichensis*) and American pipit (*Anthus rubescens*).

A few mammal species may also occur within the onsite field. Small mammals such as deer mice (*Peromyscus maniculatus*) and California voles (*Microtus californicus*) would occur in fluctuating numbers depending on the season and crop. At the time of the field survey, burrowing mammal activity was sparse, with the only evidence of mammal burrows in the form of scattered dirt mounds created by burrowing Botta's pocket gophers (*Thomomys bottae*). Various species of bat may also forage over the field for flying insects.

The presence of reptiles, birds, and small mammals is likely to attract foraging raptors and mammalian predators. Raptors such as red-tailed hawks (*Buteo jamaicensis*), Swainson's hawks (*Buteo swainsoni*), and American kestrels (*Falco sparverius*) may forage over the field. Mammalian predators occurring in the agricultural field of the project site would most likely be limited to raccoons (*Procyon lotor*), striped skunks (*Mephitis mephitis*), coyotes (*Canis latrans*), and red fox (*Vulpes vulpes*), as these species are relatively tolerant of human disturbance.



### 2.2.2 Ruderal/Developed

The project site contained a ruderal/developed area surrounded by a chain-link fence. This portion of the site has been heavily influenced by human activities and contained a ground cover that appeared to be crushed asphalt, a large metal-sided barn, office building, stockpiles of broken concrete, and raised water tank. This ruderal/developed area contained little to no vegetation. Where vegetation was present, it consisted of weedy forbs such as Jimsonweed (*Datura wrightii*) and pigweed amaranth. A single medium sized mulberry tree (*Morus alba*) was located in this area next to the office building.

The wildlife habitat value of this portion of the project site is very low and is expected to be utilized primarily by non-native animal species accustomed to human environments. Amphibians are expected to be absent due to the lack of water and vegetation. Common reptiles such as the western fence lizard (*Sceloporus occidentalis*) and Pacific gopher snake could potentially use ruderal habitats of the project area. Rock pigeons (*Columba livia*) (observed), mourning doves, European starlings (*Sturnus vulgaris*), northern mockingbirds (*Mimus polyglottos*), house finches (*Carpodacus mexicanus*), and house sparrows (*Passer domesticus*) (observed) could be expected to occur in this ruderal/developed area, as could the disturbance-tolerant killdeer (*Charadrius vociferus*), which often nests on gravel or bare ground.

Small mammals are expected to be limited to house mice (*Mus musculus*), deer mice, and brown rat (*Rattus norvegicus*). Larger mammals are expected absent from this area due to the surrounding fence and low habitat value.

## 2.3 SPECIAL STATUS PLANTS AND ANIMALS

Several species of plants and animals within the state of California have low populations and/or limited distributions. Such species may be considered “rare” and are vulnerable to extirpation as the state’s human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, state and federal laws have provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been

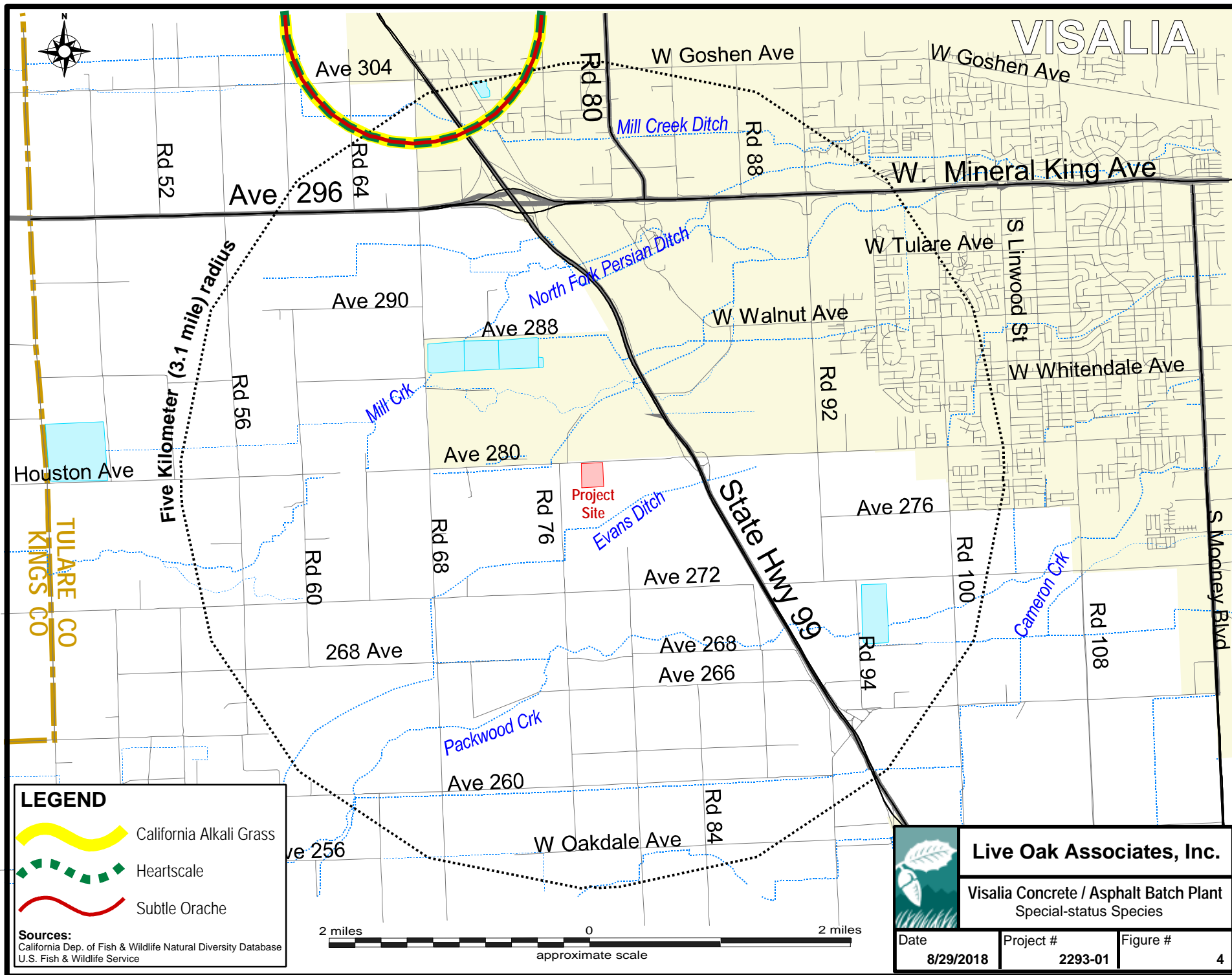


formally designated as “threatened” or “endangered” under state and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as “species of special concern” by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened, or endangered (CNPS 2018). Collectively, these plants and animals are referred to as “special status species.”

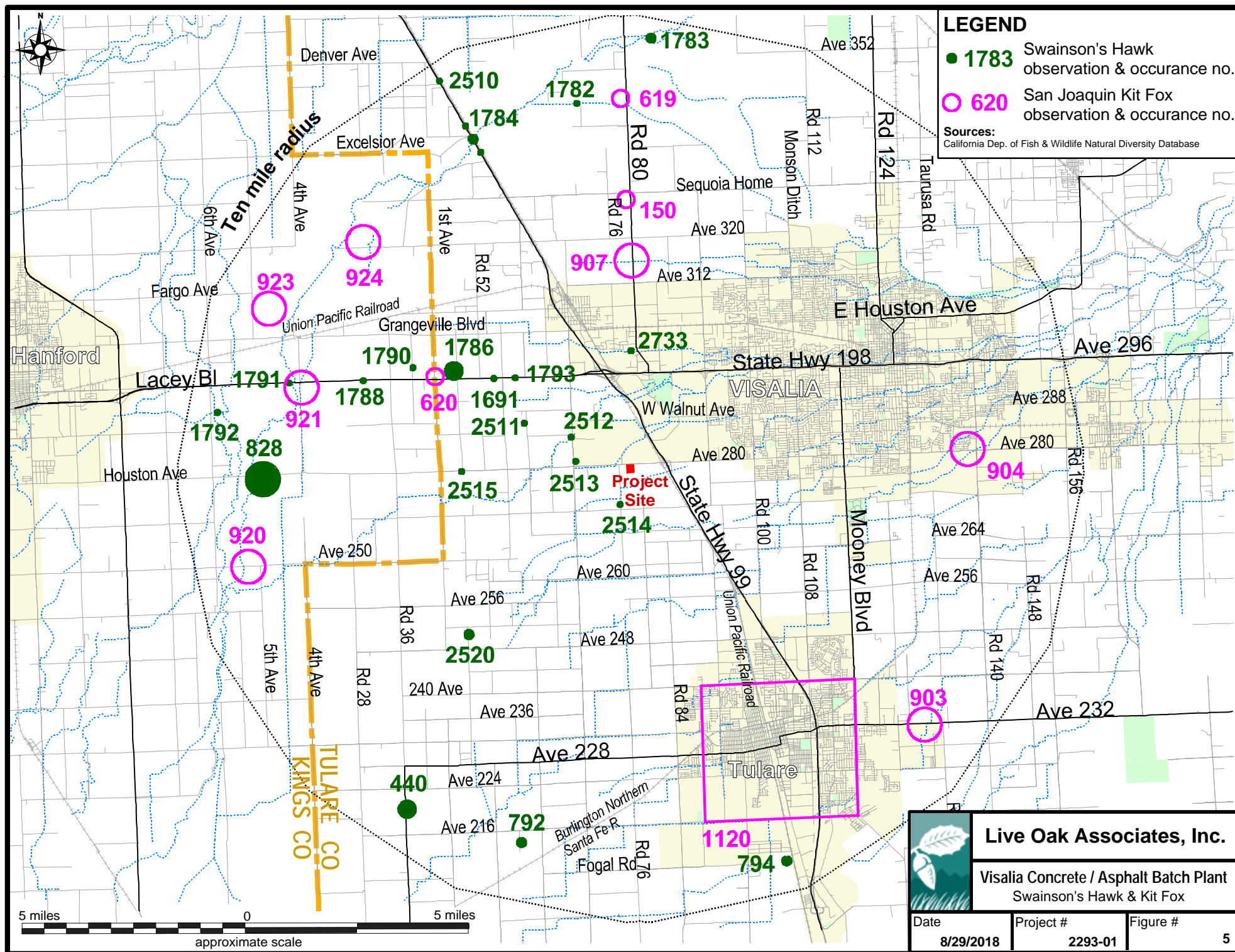
The California Natural Diversity Data Base (CDFW 2018) was queried for special status species occurrences in the nine USGS 7.5 minute quadrangles containing and immediately surrounding the project site (*Goshen, Visalia, Tulare, Paige, Waukena, Remnoy, Burris Park, Traver, and Monson*). These species, and their potential to occur on the project site, are listed in Table 1 on the following pages. Sources of information for this table included *California’s Wildlife, Volumes I, II, and III* (Zeiner et. al 1988-1990), *California Natural Diversity Data Base* (CDFW 2018), *Endangered and Threatened Wildlife and Plants* (USFWS 2018), *The Recovery Plan for Upland Species of the San Joaquin Valley, California* (USFWS 1998), *The Jepson Manual: Vascular Plants of California, second edition* (Baldwin et al 2012), and *The California Native Plant Society’s Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2018), Calflora.org, and eBird.org.

Special status species occurrences within 5 kilometers of the project site are depicted in Figure 4 and San Joaquin kit fox (*Vulpes macrotis mutica*) occurrences and Swainson’s hawk (*Buteo swainsoni*) nesting locations within 10 miles are presented in Figure 5.











**TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY**

**PLANTS (adapted from CDFW 2018 and CNPS 2018)**

*Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act*

Species	Status	Habitat	Occurrence on the Project Site
California Jewel-flower ( <i>Caulanthus californicus</i> )	FE, CE, CNPS 1B	Occurs in chenopod scrub, pinyon and juniper woodland, and sandy valley and foothill grassland; blooms February–May; elevation 250-3,300 ft.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been modified by intensive human use.
Hoover’s Spurge ( <i>Euphorbia hooveri</i> )	FT CNPS 1B	Occurs in vernal pools of California’s Central Valley; blooms July-September; elevation 80-820 ft.	<b>Absent.</b> Suitable habitat in the form of vernal pools does not exist on the project site.
San Joaquin Valley Orcutt Grass ( <i>Orcuttia inaequalis</i> )	FT, CE CNPS 1B	Occurs in vernal pools of the Central Valley; requires deep pools with prolonged periods of inundation; blooms April-September; elevation 100-2,480 ft.	<b>Absent.</b> Suitable habitat in the form of vernal pools does not exist on the project site.
San Joaquin Adobe Sunburst ( <i>Pseudobahia peirsonii</i> )	FT, CE CNPS 1B	Occurs in grasslands of the Sierra Nevada foothills in heavy clay soils of the Porterville and Centerville series. Blooms March-April; elevation 300-2,625 ft.	<b>Absent.</b> Porterville and Centerville soils are absent from the project site, and on-site habitats are otherwise unsuitable for this species.

**CNPS-Listed Plants**

Heartscale ( <i>Atriplex cordulata</i> var. <i>cordulata</i> )	CNPS 1B	Occurs on saline or alkaline soils in chenopod scrub, meadows, seeps, and grasslands; blooms April-October; elevations below 1,230 ft.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been modified by intensive human use.
Earlimart Orache ( <i>Atriplex cordulata</i> var. <i>erecticaulis</i> )	CNPS 1B	Occurs in valley and foothill grasslands between 130 and 330 ft. in elevation; blooms August-September.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been modified by intensive human use.
Brittlescale ( <i>Atriplex depressa</i> )	CNPS 1B	Occurs in chenopod scrub, valley and foothill grassland, and wetland habitats; blooms April-October; elevations below 1,050 ft.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been modified by intensive human use.
Lesser Saltscale ( <i>Atriplex minuscula</i> )	CNPS 1B	Occurs in cismontane woodland and valley and foothill grasslands of the San Joaquin Valley; alkaline/sandy soils; blooms May-October; elevation 50-660 ft.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been modified by intensive human use.
Subtle Orache ( <i>Atriplex subtilis</i> )	CNPS 1B	Occurs in valley and foothill grasslands of the San Joaquin Valley; blooms August-October; elevation 130-330 ft.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been modified by intensive human use.
Recurved Larkspur ( <i>Delphinium recurvatum</i> )	CNPS 1B	Occurs in cismontane woodland and valley and foothill grasslands; blooms March-June; alkaline soils; elevations below 2,500 ft.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. Any suitable habitat that may have once been present has been modified by intensive human use.



**TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY**

**PLANTS (cont'd)**

***CNPS-Listed Plants***

Species	Status	Habitat	Occurrence on the Project Site
Spiny-Sepaled Button Celery ( <i>Eryngium spinosepalum</i> )	CNPS 1B	Occurs in vernal pools and valley and foothill grasslands of the San Joaquin Valley and the Tulare Basin; blooms April-May; elevation 330-840 ft.	<b><u>Absent.</u></b> Suitable habitat in the form of vernal pool wetlands or wetland swales are absent from the project site.
California Satintail ( <i>Imperata brevifolia</i> )	CNPS 2B	This perennial grass is found in scrubland and chaparral habitats where water is available. Blooms September-May.	<b><u>Absent.</u></b> Suitable habitat for this species is absent from the project site.
California Alkali-Grass ( <i>Puccinellia simplex</i> )	CNPS 1B	Occurs in saline flats and mineral springs less than 900 m. in elevation in the Central Valley, San Francisco Bay area and western Mojave Desert.	<b><u>Absent.</u></b> Suitable habitat in the form of saline flats and mineral springs is absent from the project site.
Sanford's Arrowhead ( <i>Sagittaria sanfordii</i> )	CNPS 1B	Occurs in freshwater emergent marsh habitat in drainage ditches and canals of California's Central Valley. Blooms May to October.	<b><u>Absent.</u></b> Suitable habitat for this species is not present on the project site.

**ANIMALS (adapted from CDFW 2018 and USFWS 2018)**

***Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act, and/or as California Fully Protected***

Vernal Pool Fairy Shrimp ( <i>Branchinecta lynchi</i> )	FT	Occurs in vernal pools, clear to tea-colored water in grass or mud-bottomed swales, and basalt depression pools.	<b><u>Absent.</u></b> Suitable habitat in the form of vernal pools is absent from the project site.
Vernal Pool Tadpole Shrimp ( <i>Lepidurus packardii</i> )	FE	Primarily found in vernal pools, but may use other seasonal wetlands in mesic valley and foothill grasslands.	<b><u>Absent.</u></b> Suitable habitat in the form of vernal pools is absent from the project site.
California Tiger Salamander ( <i>Ambystoma californiense</i> )	FT, CT	Found primarily in annual grasslands; requires vernal pools for breeding and rodent burrows for aestivation. Although most CTS aestivate within 0.4 mile of their breeding pond, outliers may aestivate up to 1.3 miles away (Orloff 2011).	<b><u>Absent.</u></b> Vernal pool or seasonal wetland habitat suitable for breeding by the CTS does not exist on or within a 1.3-mile radius of the project site. The site is situated within agricultural lands generally not suitable for CTS. Furthermore, the site is located outside the known range of the species, with the closest known breeding occurrence of CTS approximately 16 miles northeast of the project site.
Blunt-Nosed Leopard Lizard ( <i>Gambelia sila</i> )	FE, CE, CFP	Occurs in semiarid grasslands, alkali flats, and washes. Avoids densely vegetated areas. Inhabits the San Joaquin Valley and adjacent valleys and foothills north to Merced County.	<b><u>Absent.</u></b> Suitable habitat for this species is absent from the project site and surrounding lands.



**TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY**

**ANIMALS (cont'd)**

*Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act, and/or as California Fully Protected*

Species	Status	Habitat	Occurrence on the Project Site
Swainson's Hawk ( <i>Buteo swainsoni</i> )	CT	This breeding-season migrant to California nests in stands with few trees in riparian areas and juniper-sage flats, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations.	<b>Possible.</b> The wheat and corn crops grown on the onsite agricultural field provide unsuitable (corn) to seasonably suitable (wheat) foraging habitat for Swainson's hawks (Estep 2009). A single medium sized onsite mulberry tree offers extremely marginal nesting habitat. Twenty-two Swainson's hawk nesting occurrences have been documented within 10-mile radius of the project site (CDFW 2018).
Western Yellow-Billed Cuckoo ( <i>Coccyzus americanus occidentalis</i> )	FT, CE	Occurs in valley foothill and desert riparian habitats in scattered locations in California. Requires extensive gallery riparian forests for nesting.	<b>Absent.</b> Suitable habitat for this species is absent from the project site. The only known occurrence in the project vicinity was mapped generally to Visalia in 1919 (CDFW 2018).
Tricolored Blackbird ( <i>Agelaius tricolor</i> )	CC	Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in grassland and cropland habitats.	<b>Possible.</b> Tricolored blackbirds could occasionally forage in the agricultural field of the project site. This species could conceivably nest in the agricultural field when wheat is grown. The closest known occurrence of a breeding colony was documented in a wheat field approximately 10 miles southwest of the project site in 2000 (CDFW 2018).
San Joaquin Kit Fox ( <i>Vulpes macrotis mutica</i> )	FE, CT	Found in desert alkali scrub and annual grasslands; may forage in adjacent agricultural habitats. Use underground dens for thermoregulation, cover, and reproduction. Dens are either self-dug or modified rodent burrows.	<b>Unlikely.</b> Habitats on the project site are of little to no value to kit fox due to regular human disturbance, the lack of available prey, and the site's isolation from natural habitats and known kit fox populations. There are 11 documented kit fox occurrences within a 10-mile radius of the project site, with all but two from the early to mid-1970s (see Figure 5). In fact, there have been no documented kit fox occurrences in the project vicinity for the last 15 years. The project site is situated approximately 60 miles away from the nearest kit fox core population on natural lands of western Kern County (Smith et al. 2006).



**TABLE 1. LIST OF SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY**

**ANIMALS (cont'd)**

*California Species of Special Concern*

Species	Status	Habitat	Occurrence in the Project Site
Western Spadefoot ( <i>Spea hammondi</i> )	CSC	Mainly occurs in grasslands of San Joaquin Valley. Vernal pools or other temporary wetlands are required for breeding. Aestivates in underground refugia such as rodent burrows, typically within 1,200 ft. of aquatic habitat.	<b>Absent.</b> Suitable breeding habitat for western spadefoot does not exist on the project site or surrounding lands.
Western Pond Turtle ( <i>Emys marmorata</i> )	CSC	Occurs in open slow-moving water or ponds with rocks and logs for basking. Typically requires perennial waters. Nesting occurs in open areas, on a variety of soil types, and up to ¼ mile away from water. This species is almost extinct in the southern San Joaquin Valley.	<b>Absent.</b> Suitable aquatic habitat for western pond turtle does not exist on the project site or surrounding lands.
Northern California Legless Lizard ( <i>Anniella pulchra</i> )	CSC	Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.	<b>Absent.</b> The project site provides unsuitable habitat for this species due to ongoing agricultural use of the site.
Burrowing Owl ( <i>Athene cunicularia</i> )	CSC	Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows.	<b>Absent.</b> Burrowing owls are considered absent from the project site for the following reasons. Documented burrowing owl occurrences are absent from the project vicinity (CDFW 2018; ebird 2018); no sign of burrowing owl occupation was observed on the project site; when crops are standing the site is rendered unsuitable for burrowing owls; and suitably sized burrows were absent from the project site.
Loggerhead Shrike ( <i>Lanius ludovicianus</i> )	CSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low herbaceous cover. Can often be found in cropland.	<b>Possible.</b> Shrikes could nest in the single onsite tree and could forage in the agricultural field on the site.
Western Mastiff Bat ( <i>Eumops perotis californicus</i> )	CSC	Found in open, arid to semi-arid habitats. Roosts most commonly in crevices in cliff faces, but may also use high buildings, trees, and tunnels.	<b>Possible.</b> Potential foraging habitat occurs in the airspace above the site. Roosting habitat is absent from the site. Furthermore, this species is not known to roost in the southern San Joaquin Valley.
American Badger ( <i>Taxidea taxus</i> )	CSC	Uncommon resident statewide; most abundant in drier open stages of most shrub, forest, and herbaceous habitats.	<b>Absent.</b> The project site provides unsuitable habitat for this species due to ongoing agricultural use of the site.



## OCCURRENCE TERMINOLOGY

<b>Present:</b>	Species observed on the site at time of field surveys or during recent past.
<b>Likely:</b>	Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.
<b>Possible:</b>	Species not observed on the site, but it could occur there from time to time.
<b>Unlikely:</b>	Species not observed on the site, and would not be expected to occur there except, perhaps, as a transient.
<b>Absent:</b>	Species not observed on the site, and precluded from occurring there because habitat requirements not met.

## STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
FPE	Federally Endangered (Proposed)	CFP	California Fully Protected
FPT	Federally Threatened (Proposed)	CSC	California Species of Special Concern
FC	Federal Candidate	CC	California Candidate
CNPS	California Native Plant Society Listing		
1A	Plants Presumed Extinct in California	2	Plants Rare, Threatened, or Endangered in California, but more common elsewhere
1B	Plants Rare, Threatened, or Endangered in California and elsewhere		

## 2.4 ENDANGERED, THREATENED, OR SPECIAL STATUS PLANT AND ANIMAL SPECIES MERITING FURTHER DISCUSSION

### 2.4.1 Swainson's Hawk (*Buteo swainsoni*). Federal Listing Status: None; State Listing Status: Threatened.

*Ecology of the species.* The Swainson's hawk is a large, long-winged, broad-tailed hawk with a high degree of mate and territorial fidelity. It is a breeding season migrant to California, with hawks arriving at their nesting sites in March or April. The young typically hatch between May and June and fledge 4 to 6 weeks later. By October, most birds have left for wintering grounds in South America.

In the Central Valley, Swainson's hawks typically nest in large trees along riparian systems, but may also nest in oak groves or lone, mature trees in agricultural fields or along roadsides. Nest sites are typically located adjacent to suitable open habitat for hunting small prey. In the Central Valley, California voles account for about 45% of non-insect prey taken by the Swainson's hawk, followed by mourning doves, ring-necked pheasants (*Phasianus colchicus*), western meadowlarks (*Sturnella neglecta*), and other birds (32%), and pocket gophers, deer mice, and other small mammals (20%) (Estep 1989). Insects comprise a large proportion of individual prey items, but a negligible proportion of total prey biomass, during the breeding season.



The suitability of a particular site for Swainson's hawk foraging is based on a combination of prey abundance and prey accessibility; the latter is determined by the vegetation characteristics of a site (Bechard 1982, Estep 1989). Swainson's hawks preferentially forage in habitats with low-profile vegetation, such as grasslands or pastures, fallow or disced fields, alfalfa and other hay crops, and certain grain and row crops, primarily during or immediately after harvest (Estep 1989, Estep and Dinsdale 2012). Loss of nesting and foraging habitat has greatly reduced the breeding range and abundance of this species in California, leading to its listing as threatened under the California Endangered Species Act in 1983 (CDFG 1994).

*Potential to occur onsite.* The project site contains 17 acres of agricultural field that has been planted to wheat and/or corn, depending on the year, for the last 10 years. Aerial photos of the project vicinity over the last 10 years indicate that surrounding lands follow the same crop regime. At the time of the July 2018 field survey, the onsite ag field consisted of wheat stocks that were harvested earlier in the summer. Surrounding lands consisted of corn. It is surmised that corn was not planted on the project site in 2018 in anticipation of the proposed land-use change. In years of corn production on the site, the site would provide unsuitable Swainson's hawk foraging habitat due to low prey abundance and inaccessibility of prey items during the period of time when Swainson's hawks are present in the region. In years of both wheat and corn production, the site would provide low suitability foraging habitat, with a small window of foraging opportunity post-wheat harvest and pre-corn planting. During years of wheat production, the site would offer seasonably suitable foraging habitat post-harvest (Estep 2009). The ruderal/developed area of the site is considered unsuitable for foraging due to the crushed asphalt substrate, stockpiles of broken concrete, and onsite buildings; which provide unsuitable habitat for potential prey items. This ruderal/developed area contains a single medium-sized white mulberry tree that provides extremely marginal nesting habitat. Foliage was sparse and no stick nests were observed during the field investigation. Nesting habitat is absent from immediately surrounding lands. However, Swainson's hawk nesting activity is abundant in the project vicinity, with the nearest nesting occurrence 0.7 miles southwest of the project site (see Figure 5). Furthermore, a driving inspection of lands in the near vicinity of the project site by the investigator found Swainson's hawks present in the project vicinity, primarily near alfalfa fields.



It is expected that Swainson's hawks occasionally utilize 17 acres of the site for foraging for a few months of some years depending on crop selection.

## **2.5 JURISDICTIONAL WATERS**

Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, and wetlands. Such waters may be subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE), the CDFW, and the California Regional Water Quality Control Board (RWQCB). See Section 3.2.5 of this report for additional information.

The project site and immediately surrounding lands contain no hydrologic features. As a result, jurisdictional waters are absent from the project site.

## **2.6 NATURAL COMMUNITIES OF SPECIAL CONCERN**

Natural communities of special concern are those that are of limited distribution, distinguished by significant biological diversity, home to special status plant and animal species, of importance in maintaining water quality or sustaining flows, etc. Examples of natural communities of special concern in the eastern San Joaquin Valley in the vicinity of the project would include vernal pools and various types of riparian forest (Sawyer, Keeler-Wolf and Evens 2012).

Natural communities of special concern are absent from the project site and immediately surrounding lands.

## **2.7 WILDLIFE MOVEMENT CORRIDORS**

Wildlife movement corridors are routes that animals regularly and predictably follow during seasonal migration, dispersal from native ranges, daily travel within home ranges, and inter-population movements. Movement corridors in California are typically associated with valleys, ridgelines, and rivers and creeks supporting riparian vegetation.

Wildlife movement corridors are absent from the project site and immediately surrounding lands.



### **3.0 IMPACTS AND MITIGATIONS**

#### **3.1 SIGNIFICANCE CRITERIA**

Approval of general plans, area plans, and specific projects is subject to the provisions of CEQA. The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are carried out. CEQA is concerned with the significance of a proposed project's impacts. For example, a proposed development project may require the removal of some or all of a site's existing vegetation. Animals associated with this vegetation could be destroyed or displaced. Animals adapted to humans, roads, buildings, pets, etc., may replace those species formerly occurring on the site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed.

Whenever possible, public agencies are required to avoid or minimize environmental impacts by implementing practical alternatives or mitigation measures. According to Section 15382 of the CEQA Guidelines, a significant effect on the environment means a "substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest."

Specific project impacts to biological resources may be considered "significant" if they would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.



- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Furthermore, CEQA Guidelines Section 15065(a) states that a project may trigger the requirement to make “mandatory findings of significance” if the project has the potential to:

“Substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory.”

### **3.2 RELEVANT GOALS, POLICIES, AND LAWS**

#### **3.2.1 General Plan Policies of County of Tulare**

In compliance with CEQA, the lead agency considers conformance with applicable goals and policies of the General Plans of the County of Tulare. The Tulare County General Plan released an update in 2003 that is valid through 2030. Implementation of goals in the Tulare County General Plan is accomplished via a set of policies specific to each goal.

Relevant biological resource goals of the Tulare County General Plan include:

- protecting rare and endangered species;
- limiting development in environmentally sensitive areas;
- encouraging cluster development in areas with moderate to high potential for sensitive habitat;
- protecting riparian areas through habitat preservation, designation as open space or recreational land uses, bank stabilization and development controls;



- requiring mining reclamation plans and other management plans to include measures to protect, maintain and restore riparian resources and habitats;
- supporting the preservation and management of wetland and riparian plant communities for passive recreation, groundwater recharge, and wildlife habitats;
- encouraging the planting of native trees, shrubs, and grasslands preserve;
- requiring open space buffers between development projects and significant watercourse, riparian vegetation, wetlands, and other sensitive habitats and natural communities;
- coordinating with other government land management agencies to preserve and protect biological resources;
- encouraging appropriate access to resource-managed lands;
- providing opportunities for hunting and fishing activities;
- supporting the conservation and management of oak woodland communities and their habitats;
- implementing pesticide controls to limit effects on natural resources; and
- supporting the establishment and administration of a mitigation banking program.

No habitat conservation plans (HCPs) occur in this part of Tulare County.

### **3.2.2 Threatened and Endangered Species**

In California, imperiled plants and animals may be afforded special legal protections under the California Endangered Species Act (CESA) and/or Federal Endangered Species Act (FESA). Species may be listed as “threatened” or “endangered” under one or both Acts, and/or as “rare” under CESA. Under both Acts, “endangered” means a species is in danger of extinction throughout all or a significant portion of its range, and “threatened” means a species is likely to become endangered within the foreseeable future. Under CESA, “rare” means a species may become endangered if their present environment worsens. Both Acts prohibit “take” of listed species, defined under CESA as “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill” (California Fish and Game Code, Section 86), and more broadly defined under FESA to include “harm” (16 USC, Section 1532(19), 50 CFR, Section 17.3).



When state and federally listed species have the potential to be impacted by a project, the USFWS and CDFW must be included in the CEQA process. These agencies review the environmental document to determine the adequacy of its treatment of endangered species issues and to make project-specific recommendations for the protection of listed species. Projects that may result in the “take” of listed species must generally enter into consultation with the USFWS and/or CDFW pursuant to FESA and CESA, respectively. In some cases, incidental take authorization(s) from these agencies may be required before the project can be implemented.

### **3.2.3 Migratory Birds**

The Federal Migratory Bird Treaty Act (FMBTA: 16 USC 703-712) prohibits killing, possessing, or trading in any bird species covered in one of four international conventions to which the United States is a party, except in accordance with regulations prescribed by the Secretary of the Interior. The name of the act is misleading, as it actually covers almost all birds native to the United States, even those that are non-migratory. The FMBTA encompasses whole birds, parts of birds, and bird nests and eggs.

Although the USFWS and its parent administration, the U.S. Department of the Interior, have traditionally interpreted the FMBTA as prohibiting incidental as well as intentional “take” of birds, a January 2018 legal opinion issued by the Department of the Interior now states that incidental take of migratory birds while engaging in otherwise lawful activities is permissible under the FMBTA. However, California Fish and Game Code makes it unlawful to take or possess any non-game bird covered by the FMBTA (Section 3513), as well as any other native non-game bird (Section 3800), even if incidental to lawful activities.

### **3.2.4 Birds of Prey**

Birds of prey are also protected in California under provisions of the California Fish and Game Code, Section 3503.5, which states that it is “unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance



that causes nest abandonment and/or loss of reproductive effort is considered “taking” by the CDFW.

### **3.2.5 Wetlands and Other Jurisdictional Waters**

Natural drainage channels and adjacent wetlands may be considered “waters of the United States” or “jurisdictional waters” subject to the jurisdiction of the USACE. The extent of jurisdiction has been defined in the Code of Federal Regulations but has also been subject to interpretation of the federal courts. Jurisdictional waters generally include:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce;
- All impoundments of waters otherwise defined as waters of the United States under the definition;
- Tributaries of waters identified in paragraphs (a)(1)-(4) (i.e. the bulleted items above).

As determined by the United States Supreme Court in its 2001 *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC) decision, channels and wetlands isolated from other jurisdictional waters cannot be considered jurisdictional on the basis of their use, hypothetical or observed, by migratory birds. Similarly, in its 2006 consolidated *Carabell/Rapanos* decision, the U.S. Supreme Court ruled that a significant nexus between a wetland and other navigable waters must exist for the wetland itself to be considered a navigable and therefore jurisdictional water.

The USACE regulates the filling or grading of Waters of the U.S. under the authority of Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by “ordinary high water marks” on opposing channel banks. All activities that involve the discharge of dredge or fill material into Waters of the U.S. are subject to the permit requirements



of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued until the RWQCB issues a Section 401 Water Quality Certification (or waiver of such certification) verifying that the proposed activity will meet state water quality standards.

Under the Porter-Cologne Water Quality Control Act of 1969, the State Water Resources Control Board has regulatory authority to protect the water quality of all surface water and groundwater in the State of California (“Waters of the State”). Nine RWQCBs oversee water quality at the local and regional level. The RWQCB for a given region regulates discharges of fill or pollutants into Waters of the State through the issuance of various permits and orders. Discharges into Waters of the State that are also Waters of the U.S. require a Section 401 Water Quality Certification from the RWQCB as a prerequisite to obtaining certain federal permits, such as a Section 404 Clean Water Act permit. Discharges into all Waters of the State, even those that are not also Waters of the U.S., require Waste Discharge Requirements (WDRs), or waivers of WDRs, from the RWQCB. In addition to issuing Section 401 Water Quality Certifications and WDRs, the RWQCB administers locally the federal National Pollution Discharge Elimination System (NPDES) program. Discharges of wastewater, storm water, or other pollutants into a Water of the U.S. may require a NPDES permit issued by the RWQCB.

CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1601 and 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use of any material from their bed or bank, or the deposition of debris require a Notification of Lake or Streambed Alteration. If CDFW determines that the activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. Such an agreement typically stipulates that certain measures will be implemented to protect the habitat values of the lake or drainage in question.

### **3.3 POTENTIALLY SIGNIFICANT PROJECT IMPACTS/MITIGATION**

As discussed, the project is the conversion of 20 acres containing an agricultural field and ruderal/developed area to industrial use in the form of a small concrete/asphalt batch plant.



### **3.3.1 Project Impacts to Nesting Swainson's Hawks, Tricolored Blackbird, Loggerhead Shrike, and Other Migratory Birds**

**Potential Impacts.** The project site contains suitable nesting habitat for a few avian species protected by state laws. The onsite tree could also be used by a few bird species including the loggerhead shrike (*Lanius ludovicianus*), a California Species of Special Concern. The tricolored blackbird (*Agelaius tricolor*), a State Endangered Candidate species, could potentially nest in the agricultural field if wheat is grown as it was prior to the field investigation of the site. The Swainson's hawk could nest in a few native oak trees approximately 0.42 to 0.5 miles north of the project site. The onsite mulberry tree and non-native residential trees approximately 0.15 miles east along Avenue 280 are considered extremely unlikely to support nesting Swainson's hawks. Even the most disturbed habitats of the project site could be used by the killdeer, mourning dove, and other disturbance-tolerant birds. If birds were to be nesting on or adjacent to the project site at the time of construction, project-related activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of raptors or result in mortality of individual birds constitute a violation of state laws (see Sections 3.2.3 and 3.2.4) and would be considered a significant impact under CEQA.

Given the many square miles of agricultural land in the project vicinity that provides similar to higher quality avian nesting habitat, a loss of a small amount of potential nesting habitat for the loggerhead shrike and tricolored blackbird is considered less than significant under CEQA.

**Mitigation.** In order to minimize construction disturbance to nesting birds, the applicant will implement the following measure(s), as necessary, prior to project construction:

***Mitigation 3.3.1a (Avoidance).*** In order to avoid impacts to nesting birds, construction will occur, where possible, outside the nesting season, or between September 16 and January 31.

***Mitigation 3.3.1b (Pre-construction Surveys).*** If construction must occur during the nesting season (February 1-September 15), a qualified biologist will conduct pre-construction surveys for active bird nests within 10 days of the onset of project initiation. Nest surveys will include all accessible areas on the project site and within 250 feet of the project site for tricolored blackbird, loggerhead shrike, and other migratory birds; within 500 feet for non-listed raptors; and 0.5 miles for Swainson's hawks. Inaccessible areas



will be scanned with binoculars or spotting scope, as appropriate. If no active nests are found within the survey area, no further mitigation is required.

**Mitigation 3.3.1c (Establish Buffers).** If active nests are found within the survey areas a qualified biologist will establish appropriate no-disturbance buffers based on species tolerance of human disturbance, baseline levels of disturbance, and barriers that may separate the nest from construction disturbance. These buffers will remain in place until the breeding season has ended or until the qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.

Compliance with the above mitigation measures would reduce impacts to nesting raptors and migratory birds, including the Swainson's hawk, tricolored blackbird, and loggerhead shrike, to a less than significant level under CEQA, and ensure compliance with state laws.

### **3.4 LESS THAN SIGNIFICANT PROJECT IMPACTS**

#### **3.4.1 Loss of Habitat for Special Status Plants**

**Potential Impacts.** Fourteen special status vascular plant species are known to occur in the region: California jewelflower, Hoover's spurge, San Joaquin Valley orcutt grass, San Joaquin adobe sunburst, heartscale, Earlimart orache, brittlescale, lesser saltscare, subtle orache, recurved larkspur, spiny-sealed button celery, California satintail, Sanford's arrowhead, and California alkali-grass (see Table 1). Due to the absence of suitable habitat on the project site, none of these species are expected to occur on site. Therefore, the proposed project would not affect regional populations of these species and impacts would be less than significant.

**Mitigation.** Mitigation measures are not warranted.

#### **3.4.2 Project Impacts to Special Status Animal Species Absent from, or Unlikely to Occur on the Project Site**

**Potential Impacts.** Of the 15 special status animal species that potentially occur in the project vicinity, 11 are considered absent or unlikely to occur within the project site due to past and ongoing disturbance of the site and surrounding lands, the absence of suitable habitat, and/or the site being situated outside of the species' known distribution. These species include the vernal pool fairy shrimp, vernal pool tadpole shrimp, California tiger salamander, western spadefoot, western pond turtle, Northern California legless lizard, blunt-nosed leopard lizard, western yellow-billed cuckoo, burrowing owl, San Joaquin kit fox, and American badger (see Table 1).



The project does not have the potential to significantly impact these species through construction mortality or loss of habitat because there is little or no likelihood that they are present.

**Mitigation.** Project impacts to special status animals considered absent or unlikely to occur on the site are less than significant under CEQA. Mitigation is not warranted.

### **3.4.3 Project Impacts to Special Status Animal Species that May Occur on the Project Site as Occasional or Regular Foragers but Breed Elsewhere**

**Potential Impacts.** One special status animal, the western mastiff bat, has the potential to forage on the site from time to time but would not breed on-site (see Table 1). Potential foraging habitat on the project site is not uniquely important for this species and similar or higher quality foraging habitat is abundant in the region. Therefore, the loss of foraging habitat for the western mastiff bat is not a significant impact of the project under CEQA.

**Mitigation.** Mitigation is not warranted.

### **3.4.4 Project Impacts to Swainson's Hawk Due to Habitat Loss**

**Potential Impacts.** As discussed in Section 2.4.1 the project site's agricultural field represents 17 acres of unsuitable to seasonally suitable foraging habitat for Swainson's hawks, depending on yearly crop choices. Swainson's hawk nesting activity is abundant in the project vicinity. Given the high density of nesting Swainson's hawks in the region it is reasonable to assume that Swainson's hawks occasionally forage, some years, on the agricultural field of the site.

The project would permanently decrease the amount of currently available foraging habitat in the region by 17 acres. However, given the many square miles of corn, wheat, and alfalfa fields in the region that offer similar to higher quality foraging habitat, a loss of 17 acres of wheat or corn field would not significantly reduce Swainson's hawk foraging habitat, would not imperil individual Swainson's hawks, and would have a less than significant impact under CEQA on regional populations of this species.

Nesting habitat is extremely marginal on the project site in the form of a single mulberry tree and is absent from immediately surrounding lands. Therefore, the project would have a less than significant effect on Swainson's hawks from loss of nesting habitat.



**Mitigation.** Mitigation is not warranted.

#### **3.4.5 Project Impacts to Fish and Wildlife Movements, Movement Corridors, and Use of Nursery Sites.**

**Potential Impacts.** While some common wildlife species, primarily birds, are expected to regularly use and/or pass through the site, the project site does not contain any features that would function as a fish or wildlife movement corridor or be considered a nursery site. Therefore, the project will not substantially impede the movement of native fish or wildlife species, nor impede their use of a nursery site. Project impacts to wildlife movements, movement corridors, and nursery sites are considered less than significant under CEQA.

**Mitigation.** Mitigation measures are not warranted.

#### **3.4.6 Project Impacts to Potential Waters of the United States**

**Potential Impacts.** The project site contains no hydrologic features. As such, Waters of the U.S. are absent from the project site. The project will have no impact on Waters of the U.S.

**Mitigation.** Mitigations are not warranted.

#### **3.4.7 Degradation of Water Quality in Seasonal Drainages, Stock Ponds, and Downstream Waters**

**Potential Impacts.** Extensive grading often leaves the soils of construction zones barren of vegetation and, therefore, vulnerable to erosion. Eroded soil is generally carried as sediment in surface runoff to be deposited in natural creek beds, canals, and adjacent wetlands. Furthermore, runoff is often polluted with grease, oil, pesticide and herbicide residues, heavy metals, etc.

The project site is situated within a flat landscape and no waterways are present within or immediately adjacent to the project site. Therefore, downstream water quality would not be impacted by project activities.

**Mitigation.** Mitigations are not warranted.



#### **3.4.8 Project Impacts to Riparian Habitat other Sensitive Habitats**

**Potential Impacts.** No riparian or other sensitive habitats occur on or immediately adjacent to the project site. Because these habitats are absent, they will not be impacted by project activities.

**Mitigation.** Mitigation measures are not warranted.

#### **3.4.9 Local Policies or Habitat Conservation Plans**

**Potential Impacts.** The proposed project appears to be consistent with the goals and policies of the Tulare County General Plan. No known Habitat Conservation Plans or Natural Community Conservation Plans are in effect for the area. Therefore, the project would be carried out in compliance with local policies and ordinances.

**Mitigation.** No mitigation is warranted.



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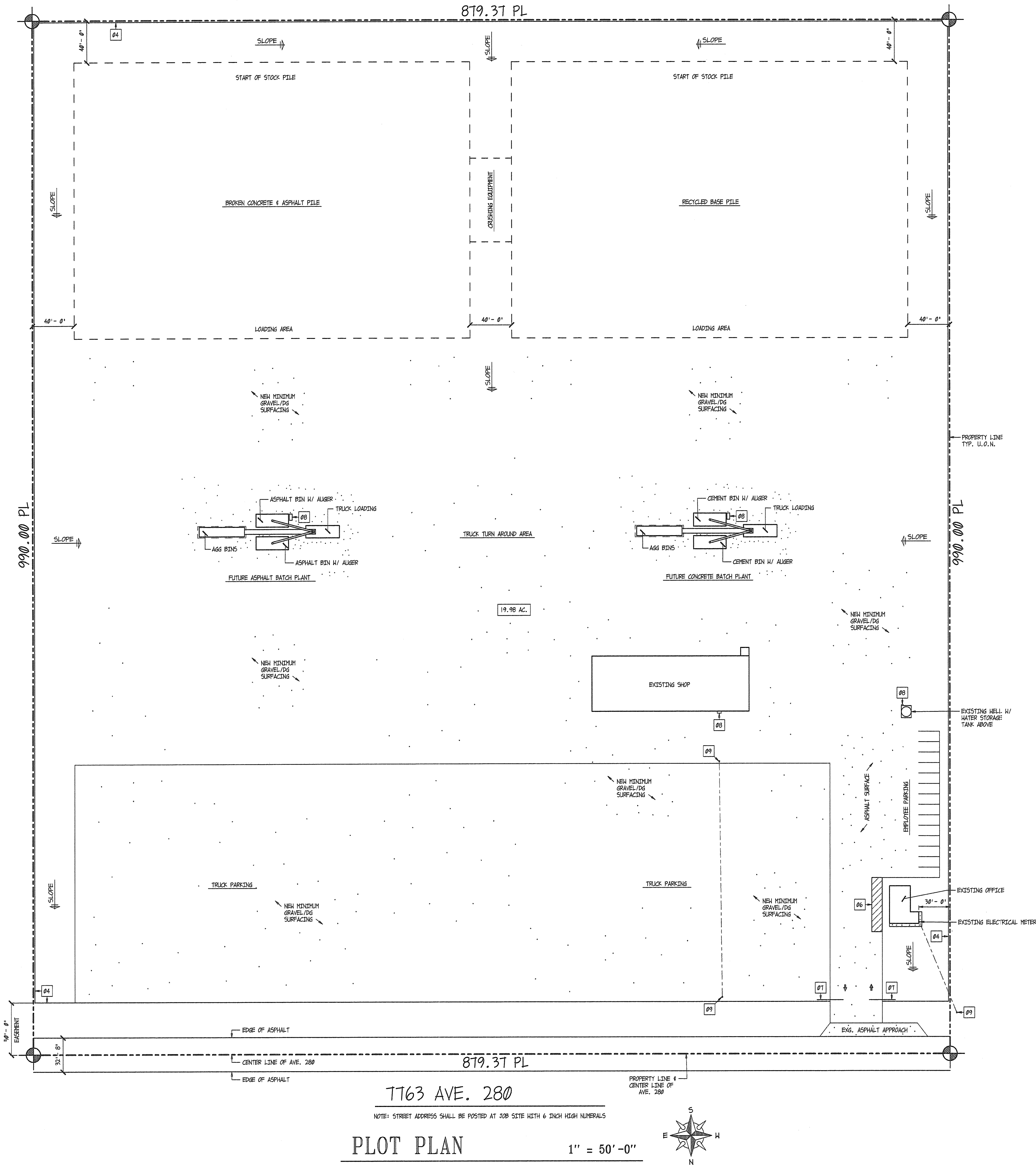


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## **APPENDIX A: CONCEPTUAL SITE PLAN**





PLOT PLAN  
1" = 50'-0"

- REFERENCE NOTES:
- 04 NEW 6 FT. HIGH CHAIN LINK FENCE TYP. U.O.N.
  - 05 EXISTING SEPTIC SYSTEM (VERIFY LOCATION W/ ORIGINAL OWNER / COUNTY)
  - 06 EXISTING SCALE
  - 07 6 FT. HIGH GATE THAT ROLLS PER OWNER
  - 08 ELECTRICAL SLAB PANEL
  - 09 EXISTING ELECTRICAL POWER POLE
  - 10 EXISTING SCALE

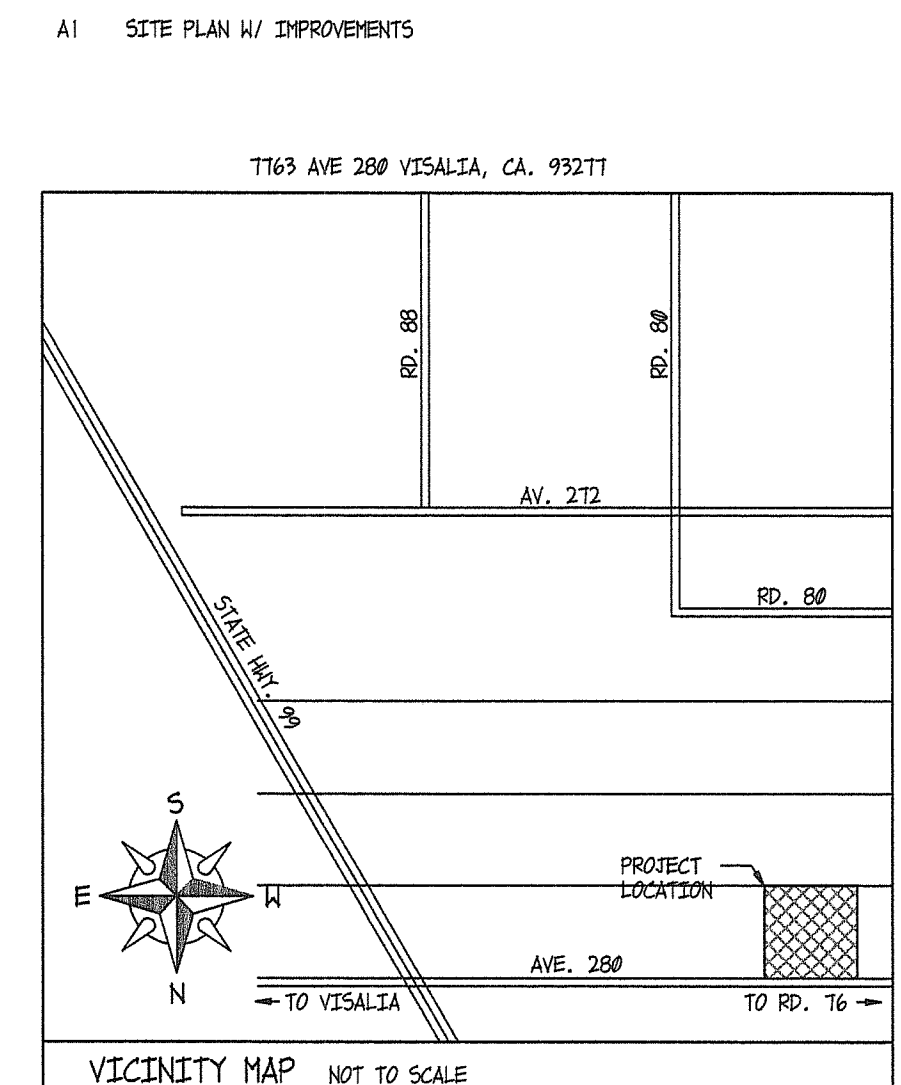
- SITE & ELEVATION NOTES:
- 12. ALL ADA ACCESSIBLE SIGNS SHALL MEET CURRENT CODE REQUIREMENTS.
  - 13. WHERE TOILET, SANITARY NAPKINS, WASTE RECEPTACLES, AND OTHER SIMILAR DISPENSING AND DISPOSAL FIXTURE ARE PROVIDED, AT LEAST ONE OF EACH TYPE SHALL BE LOCATED WITH ALL OPERABLE PARTS INCLUDING COIN SLOTS, WITHIN 48 INCHES FROM THE FINISHED FLOOR.
  - 14. FINAL APPROVAL IS SUBJECT TO ACCEPTANCE AFTER A FIELD INSPECTION.
  - 15. COMBUSTIBLE DEBRIS, RUBBISH & WASTE MATERIAL SHALL NOT BE ACCUMULATED WITHIN BUILDINGS. RUBBISH & WASTE MATERIAL SHALL BE REMOVED AS OFTEN AS PRACTICAL.
- FIRE NOTES:
- 3. SEPARATE PERMIT REQUIRED FOR SIGNS, ANSUL SYSTEM, ALARM SYSTEM, FIRE SPRINKLER SYSTEM.
  - 4. SUBMIT PLANS TO AND OBTAIN PERMIT FROM THE FIRE PREVENTION DIVISION FOR THE INSTALLATION OR MODIFICATION OF FIRE SPRINKLER SYSTEM.
  - 5. KNIV BOX REQUIRED AND SHALL BE LOADED WITH THE TENANT SPACE KEY BEFORE FINAL ON THE PERMIT CAN BE APPROVED.
  - 6. ALL REQUIRED FIRE EXTINGUISHERS SHALL HAVE A FIRE MARSHALL TAG.
  - 7. A MIN. OF 2A-10BC RATED FIRE EXTINGUISHER (5) IS REQUIRED FOR 3000 SQ.FT. THE EXTINGUISHER (5) SHALL BE LOCATED SO THAT IT WILL BE UNNECESSARY FOR A PERSON TO TRAVEL MORE THAN 75 FEET TO REACH THE NEAREST EXTINGUISHERS. SHOULD BE MOUNTED ON THE WALL SO THE TOP OF THE EXTINGUISHER IS NO MORE THAN 5 FEET FROM GROUND FLOOR HEIGHT. WHEN POSSIBLE, THE EXTINGUISHER SHOULD BE MOUNTED NEAR EXITS OR IN NORMAL EXIT PATHWAYS. IF NECESSARY, A SIGN SHALL BE POSTED TO CLEARLY INDICATE THE LOCATION OF THE EXTINGUISHER.
  - 8. PLANS, CALCS. AND SPECIFICATIONS SHALL BE SUBMITTED AND APPROVED FOR FIRE SPRINKLER SYSTEM BEFORE FRAMING INSPECTION.
  - 9. OVERHEAD FIRE SPRINKLERS SHALL BE INSPECTED AND APPROVED BY THE FIRE INSPECTOR BEFORE THE T-BAR CEILING SYSTEM CAN BE APPROVED.

- SITE & ELEVATION NOTES:
- 1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS DURING CONSTRUCTION AND SHALL BE RESPONSIBLE FOR ALL DISCREPANCIES BETWEEN DIMENSIONS OF THE ACTUAL AND THOSE SHOWN IN THE DOCUMENTS OR THE ENGINEER APPROVED SHOP DRAWINGS AND ASSUME FULL RESPONSIBILITY FOR PROPER CITY OR COUNTY BUILDING CODE REQUIREMENTS OF THIS PROJECT.
  - 2. NOTHING IN THESE PLANS OR SPECIFICATIONS SHALL BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE MOST STRINGENT OF CODES. ALL WORK SHALL BE DONE IN ACCORDANCE W/ THE CALIFORNIA RESIDENTIAL CODE (CRC), CALIFORNIA FIRE CODE (CFC) , & ALL OTHER FEDERAL, STATE, COUNTY & CITY ORDINANCES.
  - 3. HOME OWNER & CONTRACTOR IS RESPONSIBLE FOR ANY & ALL CUT, FILL & COMPACTION OF ANY & ALL EARTHWORK PER CRC CHAPTER 4.
  - 4. THE FINISH FLOOR ELEVATION AT ALL ADDITIONS SHALL MATCH EXISTING FINISH FLOOR ELEVATION AND AT NEW CONSTRUCTION SHALL BE ABOVE THE CROWN OF THE STREET AND OR MIN. 8 INCHES ABOVE GRADE U.O.N.
  - 5. THE GROUND ADJACENT TO THE FOUNDATION SHALL BE SLOPED (5%) FOR 10 FEET OR IF NOT PHYSICALLY POSSIBLE PROVIDE 2X SLOPE TO AN APPROVED ALTERNATIVE METHOD FOR DIVERTING WATER. SHALES USED FOR THIS SHALL BE MIN. 2X WHEN WITHIN 10 FEET OF THE BUILDING & MINIMUM SLOPE FOR IMPERVIOUS SURFACES SHALL BE 2X U.O.N. PER CRC R401.3.
- EXCEPTION:
- WHERE CLIMATIC OR SOIL CONDITIONS WARRANT, THE SLOPE OF THE GROUND AWAY FROM THE BUILDING FOUNDATION IS PERMITTED TO BE REDUCED TO NOT LESS THAN ONE UNIT VERTICAL IN 48 UNITS HORIZONTAL (2-PERCENT SLOPE). THE PROCEDURE USED TO ESTABLISH THE FINAL GROUND LEVEL ADJACENT TO THE FOUNDATION SHALL ACCOUNT FOR ADDITIONAL SETTLEMENT OF THE BACKFILL.
- 6. CHEMICAL TOILET AND DRINKING WATER IS REQUIRED ON-SITE DURING CONSTRUCTION AND MAINTAINED REGULARLY (CFC APPENDIX CHAPTER 291).
  - 7. INSTALL STREET ADDRESS NUMERALS, AT LEAST 4 INCHES HIGH W/ MIN. 1/2 INCH STROKE, REFLECTORIZED MOUNTED ON A CONTRASTING BACKGROUND CLEARLY VISIBLE FROM THE STREET ON THE STRUCTURE THAT THE CONSTRUCTION PERMIT WAS ISSUED FOR PER CRC R319 U.O.N.
  - 8. IF THE BUILDING IS TO BE LOCATED MORE THAN 100 FEET FROM THE PUBLIC ROADWAY, THE HOUSE NUMBERS SHALL BE DISPLAYED UPON A NON-FLAMMABLE SIGN AND POST (MIN. 32 INCHES ABOVE GROUND LEVEL) LOCATED AT THE INTERSECTION OF THE DRIVEWAY AND THE PUBLIC ROAD AND VISIBLE FROM BOTH DIRECTIONS.
  - 9. IF EXTERIOR PLASTER APPLIES TO THIS PROJECT IT SHALL COMPLY W/ ASTM D 226 FOR TYPE 1 FELT OR OTHER APPROVED MATERIALS BEHIND ALL TYPES OF EXTERIOR WALL FINISHES IS REQUIRED PER CRC R103.2 W/ FLASHINGS AS DESCRIBED IN CRC R103.6.2.1 U.O.N.
  - 10. PROVIDE A MIN. OF 1 LAYER OF NO.15 ASPHALT FELT, COMPLYING W/ ASTM D 226 FOR TYPE 1 FELT OR OTHER APPROVED MATERIALS BEHIND ALL TYPES OF EXTERIOR WALL FINISHES IS REQUIRED PER CRC R103.2 W/ FLASHINGS AS DESCRIBED IN CRC R103.6.2.1 U.O.N.
  - 11. PROVIDE SPARK ARRESTERS AT CHIMNEY PER CRC R1003.9.1.

- LANDSCAPE NOTES:
- 1. A SEPARATE PERMIT & A DOCUMENTATION PACKAGE IS REQUIRED FOR LANDSCAPES IF EITHER OF THE FOLLOWING APPLY (REFER TO 40-1081):
    - a. NEW CONSTRUCTION OR REHABILITATED LANDSCAPES WHICH ARE DEVELOPER INSTALLED IN SINGLE FAMILY PROTECTS W/ A LANDSCAPE AREA EQUAL TO OR GREATER THAN 2,500 SQ.FT.
    - b. NEW CONSTRUCTION LANDSCAPES WHICH ARE HOMEOWNER PROVIDED AND / OR HOMEOWNER HIRED IN SINGLE FAMILY PROTECTS W/ A TOTAL PROTECT LANDSCAPE AREA EQUAL TO OR GREATER THAN 5,000 SQ.FT.
- FIRE NOTES:
- 1. APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPROVE ANY OMISSION OR DEVIATION FROM APPLICABLE ADOPTED CODES & ADOPTED STANDARDS. FINAL APPROVAL IS SUBJECT TO ACCEPTANCE AFTER A FIELD INSPECTION.
  - 2. VERIFY W/ THE LOCAL FIRE DEPARTMENT IF A AUTOMATIC FIRE SPRINKLER SYSTEM & FIRE ALARM SYSTEM IS REQUIRED TO BE SUBMITTED FOR THIS PROJECT. IF SO A SEPARATE PERMIT WILL BE REQUIRED FOR AUTOMATIC FIRE SPRINKLER SYSTEM DESIGN PER 2016 CFC MFA 13-D.1142 OR 2016 CFC SECTION R313.3 THAT SHALL BE APPLIED FOR AND APPROVED PRIOR TO ISSUANCE OF THIS BUILDING PERMIT.

- APPLICABLE CODES: BASED ON THE 2015 INTERNATIONAL CODES
- 2016 CALIFORNIA ADMINISTRATIVE CODE, TITLE 24 PART 1 (CAC)
  - 2016 CALIFORNIA BUILDING CODE, TITLE 24 PART 2, 3 & 10, VOLUMES 1 & 2 (CBC)
  - 2016 CALIFORNIA RESIDENTIAL CODE, TITLE 24 PART 2.5 (CRC)
  - 2016 CALIFORNIA ELECTRICAL CODE, TITLE 24 PART 3 (CEC)
  - 2016 CALIFORNIA MECHANICAL CODE, TITLE 24 PART 4 (CMC)
  - 2016 CALIFORNIA PLUMBING CODE, TITLE 24 PART 5 (CPC)
  - 2016 CALIFORNIA ENERGY CODE, TITLE 24 PART 6 (CEC)
  - 2016 CALIFORNIA FIRE CODE, TITLE 24 PART 9 (CFC)
  - 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE, TITLE 24 PART 11 (CALGREEN)
  - 2016 CALIFORNIA REFERENCE STANDARDS CODE, TITLE 24 PART 12
1. CHANGES FROM THE APPROVED PLANS DURING THE COURSE OF CONSTRUCTION SHALL CAUSE CONSTRUCTION TO BE SUSPENDED UNTIL SUCH TIME AS THE PLANS CAN BE AMENDED BY THE DESIGNER AND SUBMITTED TO THE COUNTY FOR REVIEW AND APPROVAL CRC R106.4

- BUILDING INFORMATION:
- PROJECT: PROPOSED NEW RECYCLE / BATCH PLANT FOR JB'S CEMENT
- USE: BUSINESS AREA
- BUSINESS SIGNAGE: SHALL BE REQUIRED UNDER SEPARATE PERMIT
- NUMBER OF STORIES: 1
- SEISMIC DESIGN CATEGORY: 'D'
- EXPOSURE CATEGORY: 'C'
- CONSTRUCTION TYPE: 1B
- AUTOMATIC FIRE SPRINKLER REQUIRED: VERIFY W/ TULARE COUNTY BUILDING DEPT.
- HISTORIC PRESERVATION: NO
- ZONING: AE-40
- FLOOD ZONE: 'A' FEMA8, PANEL 06170C0191TE, BFF = 2 FT. ADV. ADJACENT GRADE THIS PROJECT IS LOCATED IN A HIGH-RISK FLOOD ZONE
- LEGAL DESCRIPTION
- PROJECT OWNER: MARK DUNN  
PROJECT OWNER PHONE: (559) 733-2281  
PROJECT ADDRESS: 7763 AVE. 280, VISALIA, CA. 93277  
A.P.N.: 119-010-039  
ASSESSOR'S MAPS BK. 119, PG. 01 COUNTY OF TULARE, CALIF.
- SHEET INDEX
- A1 SITE PLAN W/ IMPROVEMENTS



REVISIONS

BY

23532 RD. 140 TULARE, CA. 93274

PHONE: 559-303-5585

EMAIL: rcdrafting@aol.com

NOTE: VERIFY AND MATCH EXISTING PER BUILDER / OWNER

NOTE: ALL OPTIONS CAN BE AN EXTRA COST TO OWNER (OWNER SHALL VERIFY W/ BUILDER)

THIS PLAN THAT NOT BE CHANGED OR REPRODUCED WITHOUT WRITTEN CONSENT OF ROBERT COCAGNE

Dunn's Construction, Inc.

15602 AVE. 196 VISALIA, CA. 93292 (559) 734-4573

DRAWN BY:

ROBERT COCAGNE

DATE:

OCT. 31, 2013

SCALE:

A5 NOTED

JOB #:

# 1733

TITLE:

SITE PLAN

SHEET NO.:

A1



## **APPENDIX B: VASCULAR PLANTS OF THE PROJECT SITE**



## APPENDIX B: VASCULAR PLANTS OF THE PROJECT SITE

The vascular plant species listed below were observed on the project site during site surveys conducted by Live Oak Associates, Inc. on July 17, 2018. The U.S. Fish and Wildlife Service wetland indicator status of each plant has been shown following its common name.

OBL - Obligate  
 FACW - Facultative Wetland  
 FAC - Facultative  
 FACU - Facultative Upland  
 UPL - Upland

### AMARANTHACEAE—Amaranth Family

<i>Amaranthus albus</i>	Pigweed Amaranth	FACU
<i>Amaranthus palmeri</i>	Palmer Amaranth	FACU

### ASTERACEAE - Sunflower Family

<i>Erigeron bonariensis</i>	Asthmaweed	FACU
<i>Erigeron canadensis</i>	Canada Horseweed	FACU
<i>Lactuca serriola</i>	Prickly Lettuce	FACU

### BRASSICACEAE - Mustard Family

<i>Capsella bursa-pastoris</i>	Shepherd's Purse	FACU
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### CHENOPODIACEAE—Goosefoot Family

<i>Chenopodium album</i>	Common Lambsquarters	FACU
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### JUNCACEAE – Rush Family

<i>Juncus bunfontius</i>	Toad Rush	FACW
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### MALVACEAE – Mallow Family

<i>Abutilon theophrasti</i>	Velvetleaf	UPL
<i>Malva parviflora</i>	Cheeseweed	UPL

### MORACEAE—Mulberry Family

<i>Morus alba</i>	White Mulberry	FACU
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### POACEAE - Grass Family

<i>Bromus diandrus</i>	Ripgut	UPL
<i>Bromus catharticus</i>	Rescuegrass	UPL
<i>Cynodon dactylon</i>	Bermuda Grass	FAC
<i>Echinochloa crus-galli</i>	Barnyard Grass	FACW
<i>Hordeum murinum</i> ssp. <i>leporinum</i>	Barnyard Barley	FAC
<i>Leptochloa fusca</i> ssp. <i>univerva</i>	Bearded Sprangletop	FACW
<i>Sorghum halepense</i>	Johnson Grass	FACU

### POLYGONACEAE - Buckwheat Family

<i>Polygonum aviculare</i>	Prostrate Knotweed	FACW
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### SOLANACEAE - Nightshade Family

<i>Datura wrightii</i>	Sacred Datura	UPL
<i>Solanum nigrum</i>	Black Nightshade	UPL



**APPENDIX C: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY  
OCCUR ON THE PROJECT SITE**



## **APPENDIX C: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE PROJECT SITE**

The species listed below are those that may reasonably be expected to use the habitats of the project site routinely or from time to time. The list was not intended to include birds that are vagrants or occasional transients. Terrestrial vertebrate species observed in or adjacent to the project site during the surveys conducted by Live Oak Associates, Inc. on July 17, 2018 have been noted with an asterisk.

### **CLASS: REPTILIA (Reptiles)**

#### **ORDER: SQUAMATA (Lizards and Snakes)**

##### **SUBORDER: SAURIA (Lizards)**

##### **FAMILY: PHRYNOSOMATIDAE**

Western Fence Lizard (*Sceloporus occidentalis*)

Side-blotched Lizard (*Uta stansburiana*)

##### **SUBORDER: SERPENTES (Snakes)**

##### **FAMILY: COLUBRIDAE (Colubrids)**

Gopher Snake (*Pituophis melanoleucus*)

Common Kingsnake (*Lampropeltis getulus*)

##### **FAMILY: VIPERIDAE (Vipers)**

Western Rattlesnake (*Crotalus viridis*)

### **CLASS: AVES (Birds)**

#### **FAMILY: CATHARTIDAE (American Vultures)**

Turkey Vulture (*Cathartes aura*)

#### **ORDER: FALCONIFORMES (Vultures, Hawks, and Falcons)**

##### **FAMILY: ACCIPITRIDAE (Hawks, Old World Vultures, and Harriers)**

Red-tailed Hawk (*Buteo jamaicensis*)

Ferruginous Hawk (*Buteo regalis*)

Swainson's Hawk (*Buteo swainsoni*)

##### **FAMILY: FALCONIDAE (Caracaras and Falcons)**

American Kestrel (*Falco sparverius*)

Merlin (*Falco columbarius*)

Prairie Falcon (*Falco mexicanus*)

#### **ORDER: CHARADRIIFORMES (Shorebirds, Gulls, and relatives)**

##### **FAMILY: CHARADRIIDAE (Plovers and relatives)**

Killdeer (*Charadrius vociferus*)

#### **ORDER: COLUMBIFORMES (Pigeons and Doves)**

##### **FAMILY: COLUMBIDAE (Pigeons and Doves)**

\*Rock Dove (*Columba livia*)

Eurasian Collared Dove (*Streptopelia decaocto*)

\*Mourning Dove (*Zenaidura macroura*)

#### **ORDER: STRIGIFORMES (Owls)**

##### **FAMILY: TYTONIDAE (Barn Owls)**



Common Barn Owl (*Tyto alba*)  
**FAMILY: STRIGIDAE (Typical Owls)**  
Great Horned Owl (*Bubo virginianus*)  
**ORDER: APODIFORMES (Swifts and Hummingbirds)**  
**FAMILY: TROCHILIDAE (Hummingbirds)**  
Anna's Hummingbird (*Calypte anna*)  
Rufous Hummingbird (*Selasphorus rufus*)  
Black-chinned Hummingbird (*Archilochus alexandri*)  
**ORDER: PASSERIFORMES (Perching Birds)**  
**FAMILY: TYRANNIDAE (Tyrant Flycatchers)**  
Black Phoebe (*Sayornis nigricans*)  
Say's Phoebe (*Sayornis saya*)  
\*Western Kingbird (*Tyrannus verticalis*)  
**FAMILY: LANIIDAE (Shrikes)**  
Loggerhead Shrike (*Lanius ludovicianus*)  
**FAMILY: CORVIDAE (Jays, Magpies, and Crows)**  
Western Scrub Jay (*Aphelocoma coerulescens*)  
American Crow (*Corvus brachyrhynchos*)  
Common Raven (*Corvus corax*)  
**FAMILY: ALAUDIDAE (Larks)**  
Horned Lark (*Eremophila alpestris*)  
**FAMILY: HIRUNDINIDAE (Swallows)**  
Tree Swallow (*Tachycineta bicolor*)  
Cliff Swallow (*Hirundo pyrrhonota*)  
Barn Swallow (*Hirundo rustica*)  
**FAMILY: REGULIDAE (Kinglets)**  
Ruby-Crowned Kinglet (*Regulus calendula*)  
**FAMILY: TURDIDAE (Thrushes)**  
American Robin (*Turdus migratorius*)  
**FAMILY: MIMIDAE (Mockingbirds and Thrashers)**  
Northern Mockingbird (*Mimus polyglottos*)  
**FAMILY: STURNIDAE (Starlings)**  
European Starling (*Sturnus vulgaris*)  
**FAMILY: MOTACILLIDAE (Wagtails and Pipits)**  
American Pipit (*Anthus rubescens*)  
**FAMILY: EMBERIZIDAE (Emberizines)**  
Savannah Sparrow (*Passerculus sandwichensis*)  
White-Crowned Sparrow (*Zonotrichia leucophrys*)  
**FAMILY: ICTERIDAE (Blackbirds, Orioles and Allies)**  
Tricolored Blackbird (*Agelaius tricolor*)  
Red-winged Blackbird (*Agelaius phoeniceus*)  
Western Meadowlark (*Sturnella neglecta*)  
Brewer's Blackbird (*Euphagus cyanocephalus*)  
Brown-headed Cowbird (*Molothrus ater*)  
Bullock's Oriole (*Icterus bullockii*)



**FAMILY: FRINGILLIDAE (Finches)**

House Finch (*Carpodacus mexicanus*)

Lesser Goldfinch (*Carduelis psaltria*)

American Goldfinch (*Spinus tristis*)

**FAMILY: PASSERIDAE (Old World Sparrows)**

\*House Sparrow (*Passer domesticus*)

**CLASS: MAMMALIA (Mammals)**

**ORDER: DIDELPHIMORPHIA (Marsupials)**

**FAMILY: DIDELPHIDAE (Opossums)**

Virginia Opossum (*Didelphis virginiana*)

**ORDER: CHIROPTERA (Bats)**

**FAMILY: PHYLLOSTOMIDAE (Leaf-nosed Bats)**

Southern Long-nosed Bat (*Leptonycteris curasoae*)

**FAMILY: VESPERTILIONIDAE (Evening Bats)**

Yuma Myotis (*Myotis yumanensis*)

California Myotis (*Myotis californicus*)

Western Pipistrelle (*Pipistrellus hesperus*)

Big Brown Bat (*Eptesicus fuscus*)

Hoary Bat (*Lasiurus cinereus*)

**FAMILY: MOLOSSIDAE (Free-tailed Bat)**

Brazilian Free-tailed Bat (*Tadarida brasiliensis*)

**ORDER: LAGOMORPHA (Rabbits, Hares, and Pikas)**

**FAMILY: LEPORIDAE (Rabbits and Hares)**

Audubon Cottontail Rabbit (*Sylvilagus audubonii*)

**ORDER: RODENTIA (Rodents)**

**FAMILY: SCIURIDAE (Squirrels, Chipmunks, and Marmots)**

California Ground Squirrel (*Otospermophilus beecheyi*)

**FAMILY: GEOMYIDAE (Pocket Gophers)**

\*Botta's Pocket Gopher (*Thomomys bottae*)

**FAMILY: MURIDAE (Old World Rats and Mice)**

Deer Mouse (*Peromyscus maniculatus*)

Norway Rat (*Rattus norvegicus*)

House Mouse (*Mus musculus*)

California Vole (*Microtus californicus*)

**ORDER: CARNIVORA (Carnivores)**

**FAMILY: CANIDAE (Foxes, Wolves, and relatives)**

Coyote (*Canis latrans*)

Red Fox (*Vulpes vulpes*)

**FAMILY: PROCYONIDAE (Raccoons and relatives)**

Raccoon (*Procyon lotor*)

**FAMILY: MEPHITIDAE (Skunks)**

Striped Skunk (*Mephitis mephitis*)



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## **APPENDIX D: SELECTED PHOTOGRAPHS OF THE PROJECT SITE**





**Photo 1:** Onsite agricultural field.



**Photo 2:** Ruderal/developed area.





**Photo 3:** Another view of the onsite ruderal/developed area. The mulberry tree in background is the only tree on the site and immediate vicinity.



## **APPENDIX C**

### **CULTURAL AND TRIBAL CULTURAL RESOURCES**



## **APPENDIX C.1**

### **TRIBAL CONSULTATION PROCESS**



Consultation Notice – Dunn Asphalt and Concrete Batch Plant (PSP 18-049) Project																
TRIBE CONTACTED	REQUEST TYPE		DOCUMENTS SENT					MAILED				CONSULTATION PERIOD		CONSULTATION / ACTIONS		
	AB 52	SB 18	Map	Project Description	SLF Search	CHRIS	Other	Date	E-mail	FedEx	Certified US Mail	Return Receipt	Period Ends	Date	TYPE	Summary
SACRED LAND FILE (SLF) REQUEST																
Native American Heritage Commission	X		X	X	X				X				---		Letter	Response to SLF Search request
CONSULTATION REQUEST LETTERS (CONCURRENT WITH NOP)																
Kern Valley Indian Council Robert Robinson, Co-Chairperson PO Box 401 Weldon, CA 93283	X		X	X				2/1/19			7016207000 0049837332	2/13/19	3/15/19			
Kern Valley Indian Council Julie Turner, Secretary P. Box 1010 Lake Isabella, CA 93240	X		X	X				2/1/19			7016207000 0049837325	2/13/19	3/15/19			
Santa Rosa Rancheria Rueben Barrios Sr., Chairperson P. O. Box 8 Lemoore, CA 93245	X		X	X				2/1/19			7016207000 0049837318	2/6/19	2/8/19			
Santa Rosa Rancheria Tachi Yokut Tribe Greg Cuara, Cultural Specialist P. O. Box 8 Lemoore, CA 93245	X		X	X				2/1/19			7016207000 0049837301	2/4/19	2/6/19			
Santa Rosa Rancheria Shana Powers, Cultural Specialist P. O. Box 8 Lemoore, CA 93245	X		X	X				2/1/19			7016207000 0049837295	2/4/19	2/6/19			
Torres Martinez Desert Cahuilla Indians Michael Mirelez, Cultural Resource Coordinator P. O. Box 1160 Thermal, CA 92274	X		X	X				2/1/19			7016207000 0049837288	2/4/19	2/6/19			
Tubatulabals of Kern Valley Robert L. Gomez, Jr., Chairperson P. O. Box 226 Lake Isabella, CA 93240	X		X	X				2/1/19			7016207000 0049837271	2/7/19	2/9/19			
Tule River Indian Tribe Neil Peyron, Chairperson P. O. Box 589 Porterville, CA 93258	X		X	X				2/1/19			7016207000 0049837264	2/5/19	2/7/19			
Tule River Indian Tribe Environmental Department Felix Christman, Tribal Monitor P. O. Box 589 Porterville, CA 93258	X		X	X				2/1/19			7016207000 0049837257	2/5/19	2/7/19			
Tule River Indian Tribe Environmental Department Kerri Vera, Director P. O. Box 589 Porterville, CA 93258	X		X	X				2/1/19			7016207000 0049837240	2/5/19	2/7/19			
Wuksache Indian Tribe/Eshom Valley Band Kenneth Woodrow, Chairperson 1179 Rock Haven Ct. Salinas, CA 93906	X		X	X				2/1/19			7016207000 0049837349	2/4/19	2/6/19			



Kern Valley Indian Council  
Robert Robinson, Co-Chairperson  
P.O. Box 1010  
Lake Isabella, CA 93240

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Lake Isabella, CA 93240

Kern Valley Indian Council  
Julie Turner, Secretary  
P. Box 1010  
Lake Isabella, CA 93240

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Santa Rosa Rancheria Tachi Yokut Tribe  
Cultural Department  
Greg Cuara, Cultural Specialist  
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Santa Rosa Rancheria Tachi Yokut Tribe  
Shana Powers, Cultural Specialist  
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Torres Martinez Desert Cahuilla Indians  
Michael Mirelez, Cultural Resource  
Coordinator  
P. O. Box 1160  
Thermal, CA 92274

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Tubatulabals of Kern Valley  
Robert L. Gomez, Jr., Chairperson  
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Lake Isabella, CA 93240

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Tule River Indian Tribe  
Neil Peyron, Chairperson  
P. O. Box 589  
Porterville, CA 93258

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Tule River Indian Tribe  
Department of Environmental Protection  
Felix Christman, Archaeological Monitor  
P. O. Box 589  
Porterville, CA 93258

Tule River Indian Tribe  
Department of Environmental Protection  
Felix Christman, Tribal Archaeologist  
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Kerri Vera, Director  
P. O. Box 589  
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Wuksache Indian Tribe/  
Eshom Valley Band  
Kenneth Woodrow, Chairperson  
1179 Rock Haven Ct.  
Salinas, CA 93906

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# RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

VISALIA, CA 93277

PHONE (559) 624-7000

FAX (559) 730-2653

Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

---

REED SCHENKE, DIRECTOR

January 31, 2019

Torres Martinez Desert Cahuilla Indians  
Michael Mirelez, Cultural Resource Coordinator  
P. O. Box 1160  
Thermal, CA 92274

**RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Dunn Asphalt & Concrete Batch Plant (PSP 18-049) Project**

Dear Mr. Mirelez,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Dunn Asphalt and Concrete Batch Plant (PSP 18-049) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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<http://tularecounty.ca.gov/rma/index.cfm/projects/planning-projects/applicant-projects/dunn-asphalt-and-concrete-batch-plant/>

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Thank you for your consideration on this matter and please do not hesitate to contact me by phone or e-mail if you have any questions or need additional information. If you need immediate assistance and I am unavailable, please contact Jessica Willis, by phone at (559) 624-7122, or by email at [jwillis@co.tulare.ca.us](mailto:jwillis@co.tulare.ca.us).

Sincerely,

Hector Guerra  
Chief Environmental Planner  
Environmental Planning Division  
(559) 624-7121  
[hguerra@co.tulare.ca.us](mailto:hguerra@co.tulare.ca.us)





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Michael Washam

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Economic Development and Planning

Public Works

Fiscal Services

---

REED SCHENKE, DIRECTOR

January 31, 2019

Kern Valley Indian Council  
Robert Robinson, Co-Chairperson  
PO Box 1010  
Lake Isabella, CA 93240

**RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Dunn Asphalt & Concrete Batch Plant (PSP 18-049) Project**

Dear Chairperson Robinson,

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Sincerely,

Hector Guerra  
Chief Environmental Planner  
Environmental Planning Division  
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Economic Development and Planning

Public Works

Fiscal Services

---

REED SCHENKE, DIRECTOR

January 31, 2019

Kern Valley Indian Council  
Julie Turner, Secretary  
PO Box 1010  
Lake Isabella, CA 93240

**RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Dunn Asphalt & Concrete Batch Plant (PSP 18-049) Project**

Dear Ms. Turner,

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Sincerely,

Hector Guerra  
Chief Environmental Planner  
Environmental Planning Division  
(559) 624-7121  
[hguerra@co.tulare.ca.us](mailto:hguerra@co.tulare.ca.us)





# RESOURCE MANAGEMENT AGENCY

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FAX (559) 730-2653

Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

---

REED SCHENKE, DIRECTOR

January 31, 2019

Santa Rosa Rancheria  
Tachi Yokut Tribe  
Rueben Barrios Sr., Chairperson  
P. O. Box 8  
Lemoore, CA 93245

**RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Dunn Asphalt & Concrete Batch Plant (PSP 18-049) Project**

Dear Chairperson Barrios,

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Sincerely,

Hector Guerra  
Chief Environmental Planner  
Environmental Planning Division  
(559) 624-7121  
[hguerra@co.tulare.ca.us](mailto:hguerra@co.tulare.ca.us)





# RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

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Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

---

REED SCHENKE, DIRECTOR

January 31, 2019

Santa Rosa Rancheria  
Tachi Yokut Tribe  
Greg Cuara, Cultural Specialist  
P. O. Box 8  
Lemoore, CA 93245

**RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Dunn Asphalt & Concrete Batch Plant (PSP 18-049) Project**

Dear Mr. Cuara,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Dunn Asphalt and Concrete Batch Plant (PSP 18-049) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Thank you for your consideration on this matter and please do not hesitate to contact me by phone or e-mail if you have any questions or need additional information. If you need immediate assistance and I am unavailable, please contact Jessica Willis, by phone at (559) 624-7122, or by email at [jwillis@co.tulare.ca.us](mailto:jwillis@co.tulare.ca.us).

Sincerely,

Hector Guerra  
Chief Environmental Planner  
Environmental Planning Division  
(559) 624-7121  
[hguerra@co.tulare.ca.us](mailto:hguerra@co.tulare.ca.us)





# RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

VISALIA, CA 93277

PHONE (559) 624-7000

FAX (559) 730-2653

Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

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REED SCHENKE, DIRECTOR

January 31, 2019

Santa Rosa Rancheria  
Tachi Yokut Tribe  
Shana Powers, Cultural Specialist  
P. O. Box 8  
Lemoore, CA 93245

**RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Dunn Asphalt & Concrete Batch Plant (PSP 18-049) Project**

Dear Ms. Powers,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Dunn Asphalt and Concrete Batch Plant (PSP 18-049) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

- Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine; and
- Native American historic, cultural, or sacred site that is listed or may be eligible for listing in the California Register of Historical Resources including historic or prehistoric ruins and any burial ground, archaeological, or historic site.

**Sacred Lands File Search**

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## **California Historical Resources Information System Search**

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Sincerely,

Hector Guerra  
Chief Environmental Planner  
Environmental Planning Division  
(559) 624-7121  
[hguerra@co.tulare.ca.us](mailto:hguerra@co.tulare.ca.us)





# RESOURCE MANAGEMENT AGENCY

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PHONE (559) 624-7000

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Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

---

REED SCHENKE, DIRECTOR

January 31, 2019

Tubatulabals of Kern Valley  
Robert L. Gomez, Jr., Chairperson  
P.O. Box 226  
Lake Isabella, CA 93240

**RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Dunn Asphalt & Concrete Batch Plant (PSP 18-049) Project**

Dear Chairperson Gomez,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Dunn Asphalt and Concrete Batch Plant (PSP 18-049) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,

Hector Guerra  
Chief Environmental Planner  
Environmental Planning Division  
(559) 624-7121  
[hguerra@co.tulare.ca.us](mailto:hguerra@co.tulare.ca.us)





# RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

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PHONE (559) 624-7000

FAX (559) 730-2653

Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

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REED SCHENKE, DIRECTOR

January 31, 2019

Tule River Indian Tribe  
Environmental Department  
Felix Christman, Tribal Monitor  
P. O. Box 589  
Porterville, CA 93258

**RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Dunn Asphalt & Concrete Batch Plant (PSP 18-049) Project**

Dear Mr. Christman,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Dunn Asphalt and Concrete Batch Plant (PSP 18-049) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,

Hector Guerra  
Chief Environmental Planner  
Environmental Planning Division  
(559) 624-7121  
[hguerra@co.tulare.ca.us](mailto:hguerra@co.tulare.ca.us)





# RESOURCE MANAGEMENT AGENCY

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PHONE (559) 624-7000

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Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

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REED SCHENKE, DIRECTOR

January 31, 2019

Tule River Indian Tribe  
Neil Peyron, Chairperson  
P. O. Box 589  
Porterville, CA 93258

**RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Dunn Asphalt & Concrete Batch Plant (PSP 18-049) Project**

Dear Chairperson Peyron,

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Sincerely,

Hector Guerra  
Chief Environmental Planner  
Environmental Planning Division  
(559) 624-7121  
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# RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

VISALIA, CA 93277

PHONE (559) 624-7000

FAX (559) 730-2653

Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

---

REED SCHENKE, DIRECTOR

January 31, 2019

Tule River Indian Tribe  
Environmental Department  
Kerri Vera, Director  
P. O. Box 589  
Porterville, CA 93258

**RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Dunn Asphalt & Concrete Batch Plant (PSP 18-049) Project**

Dear Ms. Vera,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Dunn Asphalt and Concrete Batch Plant (PSP 18-049) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,

Hector Guerra  
Chief Environmental Planner  
Environmental Planning Division  
(559) 624-7121  
[hguerra@co.tulare.ca.us](mailto:hguerra@co.tulare.ca.us)





# RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

VISALIA, CA 93277

PHONE (559) 624-7000

FAX (559) 730-2653

Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

---

REED SCHENKE, DIRECTOR

January 31, 2019

Wuksachi Indian Tribe  
Eshom Valley Band  
Kenneth Woodrow, Chairperson  
1179 Rock Haven Ct.  
Salinas, CA 93906

**RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Dunn Asphalt & Concrete Batch Plant (PSP 18-049) Project**

Dear Chairperson Woodrow,

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Sincerely,

Hector Guerra  
Chief Environmental Planner  
Environmental Planning Division  
(559) 624-7121  
[hguerra@co.tulare.ca.us](mailto:hguerra@co.tulare.ca.us)



## **APPENDIX C.2**

### **SACRED LAND FILE (SLF) SEARCH**



**NATIVE AMERICAN HERITAGE COMMISSION**

Environmental and Cultural Department  
1550 Harbor Blvd., Suite 100  
West Sacramento, CA 95691  
(916) 373-3710



December 26, 2018

Jessica Willis  
Tulare County Resource Management Agency

Sent Via Email: [jwillis@co.tulare.ca.us](mailto:jwillis@co.tulare.ca.us)

RE: Dunn Asphalt and Concrete Batch Plant, Goshen, Tulare County

Dear Ms. Willis:

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for the area of potential project effect (APE) referenced above with negative results. **Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE.**

I suggest you contact all of those listed, if they cannot supply information, they might recommend others with specific knowledge. The list should provide a starting place to locate areas of potential adverse impact within the APE. **By contacting all those on the list, your organization will be better able to respond to claims of failure to consult.** If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact via email: [Sharaya.Souza@nahc.ca.gov](mailto:Sharaya.Souza@nahc.ca.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Sharaya Souza".

Sharaya Souza  
Staff Services Analyst  
(916) 573-0168



**Native American Heritage Commission  
Native American Contacts List  
12/24/2018**

Kern Valley Indian Community Julie Turner, Secretary P.O. Box 1010 Lake Isabella ,CA 93240 (661) 340-0032 Cell	Kawaiisu Tubatulabal	Wuksache Indian Tribe/Eshom Valley Band Kenneth Woodrow, Chairperson 1179 Rock Haven Ct. Salinas ,CA 93906 kwood8934@aol.com (831) 443-9702	Foothill Yokuts Mono Wuksache
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Kern Valley Indian Community Robert Robinson, Chairperson P.O. Box 1010 Lake Isabella ,CA 93283 brobinson@iwwisp.com (760) 378-2915 Cell	Tubatulabal Kawaiisu
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Santa Rosa Rancheria Tachi Yokut Tribe Rueben Barrios Sr., Chairperson P.O. Box 8 Lemoore ,CA 93245 (559) 924-1278 (559) 924-3583 Fax	Tache Tachi Yokut
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Tubatulabals of Kern Valley Robert L. Gomez, Jr., Tribal Chairperson P.O. Box 226 Lake Isabella ,CA 93240 (760) 379-4590 (760) 379-4592 Fax	Tubatulabal
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Tule River Indian Tribe Neil Peyron, Chairperson P.O. Box 589 Porterville ,CA 93258 neil.peyron@tulerivertribe-nsn.gov (559) 781-4271 (559) 781-4610 Fax	Yokuts
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**This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.**

**Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.**

**This list is only applicable for contacting local Native American Tribes for the proposed:  
Dunn Asphalt and Concrete Batch Plant, Goshen, Tulare County.**



## **APPENDIX C.3**

### **CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM (CHRIS) SEARCH**





**To:** Hector Guerra  
Tulare County Resource Management Agency  
5961 South Mooney Blvd.  
Visalia, CA 93277

**Record Search 18-510**

**Date:** December 14, 2018

**Re:** Dunn Asphalt and Concrete Batch Plant

**County:** Tulare

**Map(s):** Goshen 7.5'

### **CULTURAL RESOURCES RECORDS SEARCH**

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

The following are the results of a search of the cultural resource files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, Historic Property Directory, California State Historical Landmarks, California Register of Historical Resources, California Inventory of Historic Resources, and California Points of Historical Interest. Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area.

### **PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND WITHIN THE ONE-HALF MILE RADIUS**

According to the information in our files, there have been no previous cultural resource studies conducted within the project area. There has been one cultural resource study conducted within the one-half mile radius, TU-00534.



---

**KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND WITHIN THE ONE-HALF MILE RADIUS**

---

There are no recorded cultural resource within project area and it is not known if any exist there. There is one recorded resource within the one-half mile radius, P-54-002179, the Evans Ditch.

There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

**COMMENTS AND RECOMMENDATIONS**

We understand this project consists of construction of a concrete batch plant, recycling of concrete and asphalt, and a hot mix asphalt batch plant. No information was given as to the current state of the property. Because a cultural resources study has never been conducted on this project area, it is unknown if any cultural resources are present. If the property is vacant, prior to ground disturbance activities, we recommend a qualified, profession consultant conduct a field survey to determine if cultural resources are present. If any structures more than 45 years or older exist on the property, prior to alteration or demolition, we recommend they be recorded and evaluated for historical significance by a qualified, professional consultant. If the property is currently developed and no structures over 45 years old are present, then no further cultural resource investigation is recommended at this time. However, if cultural resources are unearthed during any ground disturbance activities, all work should halt in the area of the find and a qualified, professional consultant should be called out to assess the findings and make the appropriate mitigation recommendations. A list of qualified consultants can be found at [www.chrisinfo.org](http://www.chrisinfo.org).

We also recommend that you contact the Native American Heritage Commission in Sacramento. They will provide you with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file in order to determine what sacred resources, if any, exist within this project area and the way in which these resources might be managed. Finally, please consult with the lead agency on this project to determine if any other cultural resource investigation is required. If you need any additional information or have any questions or concerns, please contact our office at (661) 654-2289.

By:



Celeste M. Thomson, Coordinator

**Date:** December 14, 2018

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.





Southern San Joaquin Valley Information Center  
CA Historical Resources Information System  
California State University, Bakersfield  
Mail Stop: 72 DOB / 4010  
9001 Stockdale Highway  
Bakersfield, California 93311-1022

93277-933461

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Tulare County  
Resource Management Agency

JAN 22 2019

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## **APPENDIX C.4**

### **PHASE 1 SURVEY**



***Final***  
**PHASE I SURVEY,**  
**7763 AVENUE 280, VISALIA, TULARE COUNTY,**  
**CALIFORNIA**

*Prepared for:*

Mr. Richard Walker  
4-Creeks, Inc.  
324 S. Santa Fe, Suite A  
Visalia, CA 93292

*Prepared by:*

David S. Whitley, Ph.D., RPA

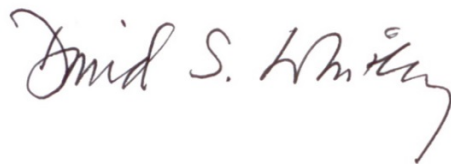
and

Peter A. Carey, M.A. RPA

ASM Affiliates, Inc.  
20424 West Valley Blvd., Suite A  
Tehachapi, California 93561

September 2018

PN 30600.00



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David S. Whitley, Ph.D., RPA



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## MANAGEMENT SUMMARY

An intensive Phase I cultural resources survey was conducted for a proposed 20-acres batch plant, located at 7763 Avenue 280 (APN 119-010-039), Visalia, Tulare County, California. ASM Affiliates, Inc., conducted this study, with David S. Whitley, Ph.D., RPA, serving as principal investigator. The study was undertaken to assist with compliance with the California Environmental Quality Act (CEQA)

A records search of site files and maps was conducted at the Southern San Joaquin Valley Archaeological Information Center, California State University, Bakersfield. A Sacred Lands File Request was also submitted to the Native American Heritage Commission (NAHC). Letters and follow-up phone calls were made to tribal organizations on the NAHC contact list, to determine whether tribal cultural resources were known in or near the Project. These investigations determined that the Project area had not been previously surveyed and that no sites or tribal cultural resources were known to exist within or near it.

The Phase I survey fieldwork was conducted in August 2018 with parallel transects spaced at 15-meter intervals walked along the approximately 20-acre study area. No archaeological resources of any kind were discovered within the project area. Based on these results, the proposed batch plant project does not have the potential to result in significant impacts to historical or unique cultural resources, and no additional archaeological work is recommended.



# 1. INTRODUCTION AND REGULATORY CONTEXT

ASM Affiliates, Inc., was retained by 4-Creeks, Inc., to provide a Phase I cultural resources survey for a proposed batch plant located at 7763 Avenue 280 (APN 119-010-039), Visalia, Tulare County, California (Figure 1). The study was undertaken to assist with compliance with the California Environmental Protection Act (CEQA). The investigation was conducted, specifically, to ensure that adverse impacts to significant or unique historical resources do not occur as a result of the proposed project.

This current study included:

- A background records search and literature review to determine if any known cultural resources were present in the project zone and/or whether the area had been previously and systematically studied by archaeologists;
- An on-foot, intensive inventory of the study area to identify and record previously undiscovered cultural resources and to examine known sites; and
- A preliminary assessment of any such resources found within the subject property.

David S. Whitley, Ph.D., RPA, served as principal investigator and Robert Azpitarte, B.A., ASM Associate Archaeologist, conducted the fieldwork.

This document constitutes a report on the Phase I survey. Subsequent chapters provide background to the investigation, including historic context studies; the findings of the archival records search; Native American outreach; a summary of the field surveying techniques employed; and the results of the fieldwork. We conclude with management recommendations for the study area.

## 1.1 PROJECT LOCATION

The proposed batch plant project is located on the south side of Avenue 280/West Caldwell Avenue, approximately 0.65-miles west of State Highway 99, on the open flats of the San Joaquin Valley. Elevation within the project area, which is flat, is approximately 285-ft above mean sea level (amsl).

## 1.2 PROJECT DESCRIPTION AND APE

The proposed project consists of the operation of a portable concrete batch plant, a portable concrete and asphalt recycling plant, and a hot mix asphalt plant, with storage for appropriate materials for and output of each of these systems. The project location currently contains three standing structures: an existing office building, shop, and well with water tank storage above. All three of these structures will be retained and used as part of the batch plant facility.



## 1.3 REGULATORY CONTEXT

### 1.3.1 CEQA

CEQA is applicable to discretionary actions by state or local lead agencies. Under CEQA, lead agencies must analyze impacts to cultural resources. Significant impacts under CEQA occur when “historically significant” or “unique” cultural resources are adversely affected, which occurs when such resources could be altered or destroyed through project implementation. Historically significant cultural resources are defined by eligibility for or by listing in the California Register of Historical Resources (CRHR). In practice, the federal NRHP criteria (below) for significance applied under Section 106 are generally (although not entirely) consistent with CRHR criteria (see PRC § 5024.1, Title 14 CCR, Section 4852 and § 15064.5(a)(3)).

Significant cultural resources are those archaeological resources and historical properties that:

- (A) Are associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- (B) Are associated with the lives of persons important in our past;
- (C) Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or
- (D) Have yielded, or may be likely to yield, information important in prehistory or history.

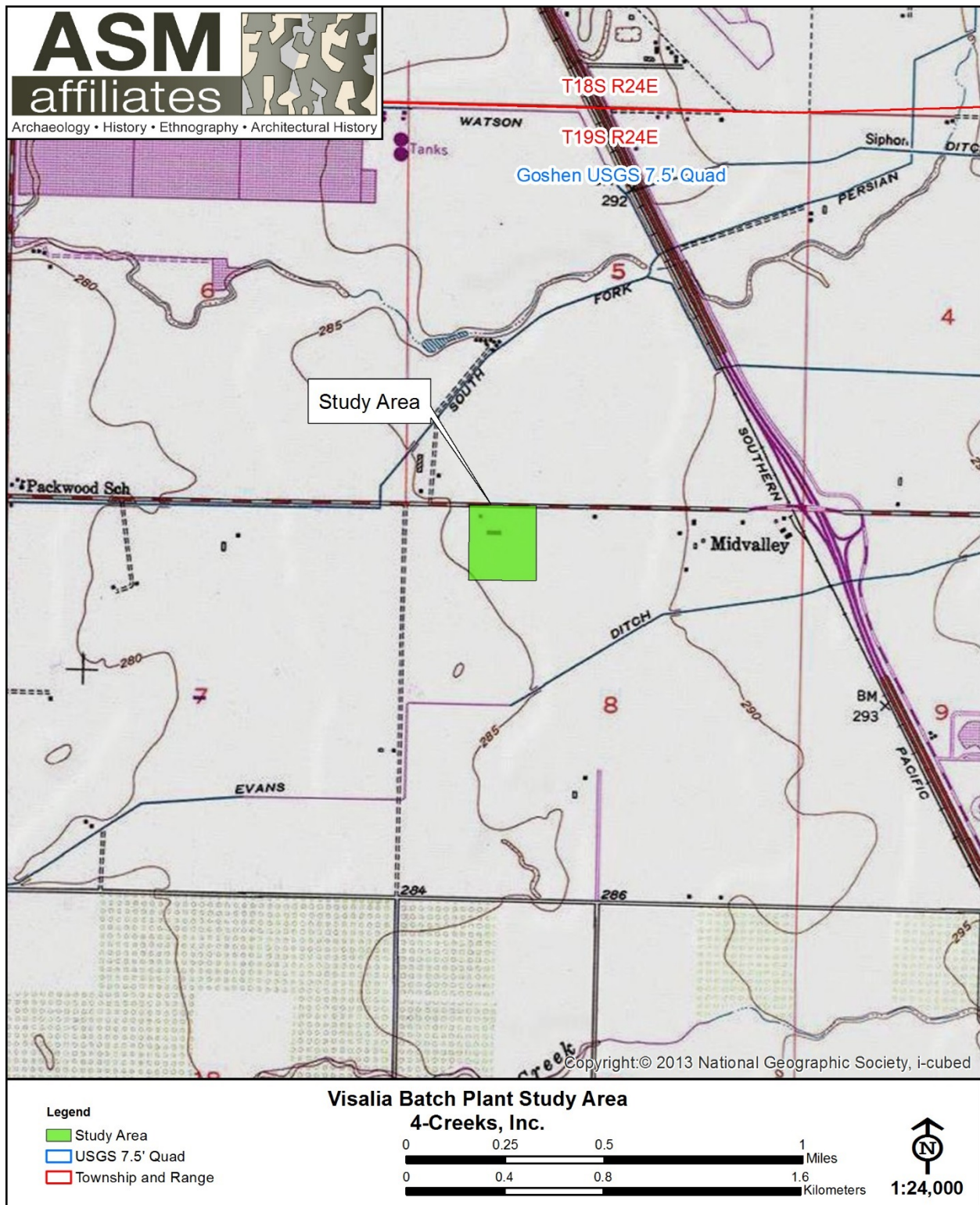
Unique resources under CEQA, in slight contrast, are those that represent:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC § 21083.2(g)).

Preservation in place is the preferred approach under CEQA to mitigating adverse impacts to significant or unique cultural resources.





**Figure 1. Location of the 7763 Avenue 280 Project, Tulare County, California**







## **2. ENVIRONMENTAL AND CULTURAL BACKGROUND**

### **2.1 ENVIRONMENTAL BACKGROUND AND GEOARCHAEOLOGICAL SENSITIVITY**

As noted above, the project is located at 285-foot elevation on the open flats of the San Joaquin Valley. Prior to the appearance of agriculture, starting in the nineteenth century, this location within the largest oak valley woodland in California (Preston 1981). Historically, and likely prehistorically, riparian environments would have been present along the drainages, waterways and marshes. The study area and immediate surroundings have been farmed and grazed for many years and no native vegetation is present. Perennial bunchgrasses such as purple needlegrass and nodding needlegrass most likely would have been the dominant plant cover in the study area prior to cultivation. According to the geoarchaeological model developed by Meyer et al. (2010), the study area has a moderately high potential for buried archaeological deposits. No significant ground-surface excavation is anticipated for the batch plant set-up and operation, however, indicating that it would be unlikely that subsurface archaeological deposits, if present, would be disturbed.

### **2.2 ETHNOGRAPHIC BACKGROUND**

Penutian-speaking Yokuts tribal groups occupied the southern San Joaquin Valley region and much of the nearby Sierra Nevada. Ethnographic information about the Yokuts was collected primarily by Powers (1971, 1976 [originally 1877]), Kroeber (1925), Gayton (1930, 1948), Driver (1937), Latta (1977) and Harrington (n.d.). For a variety of historical reasons, existing research information emphasizes the central Yokuts tribes who occupied both the valley and particularly the foothills of the Sierra. The northernmost tribes suffered from the influx of Euro-Americans during the Gold Rush and their populations were in substantial decline by the time ethnographic studies began in the early twentieth century. In contrast, the southernmost tribes were partially removed by the Spanish to missions and eventually absorbed into multi-tribal communities on the Sebastian Indian Reservation (on Tejon Ranch), and later the Tule River Reservation, to the east, and Santa Rosa Rancheria, to the north. The result is an unfortunate scarcity of ethnographic detail on southern Valley tribes, especially in relation to the rich information collected from the central foothills tribes where native speakers of the Yokuts dialects are still found. Regardless, the general details of indigenous life-ways were similar across the broad expanse of Yokuts territory, particularly in terms of environmentally influenced subsistence and adaptation and with regard to religion and belief, which were similar everywhere.

Following Kroeber (1925: Plate 47), the project location most likely lies in Telamni Yokuts territory. No historic villages are recorded for the immediate project area, per se, by Kroeber (1925) or by Latta (1977), however. The Yokuts settlement pattern was largely consistent, regardless of specific tribe involved. Winter villages were typically located along lakeshores and major stream courses (as these existed circa AD 1800), with dispersal phase family camps located at elevated spots on the valley floor and near gathering areas in the foothills.



Most Yokuts groups, again regardless of specific tribal affiliation, were organized as a recognized and distinct tribelet; a circumstance that almost certainly pertained to the tribal groups noted above. Tribelets were land-owning groups organized around a central village and linked by shared territory and descent from a common ancestor. The population of most tribelets ranged from about 150 to 500 peoples (Kroeber 1925).

Each tribelet was headed by a chief who was assisted by a variety of assistants, the most important of whom was the *winatum*, a herald or messenger and assistant chief. A shaman also served as religious officer. While shamans did not have any direct political authority, as Gayton (1930) has illustrated, they maintained substantial influence within their tribelet.

Shamanism is a religious system common to most Native American tribes. It involves a direct and personal relationship between the individual and the supernatural world enacted by entering a trance or hallucinatory state (usually based on the ingestion of psychotropic plants, such as jimsonweed or more typically native tobacco). Shamans were considered individuals with an unusual degree of supernatural power, serving as healers or curers, diviners, and controllers of natural phenomena (such as rain or thunder). Shamans also produced the rock art of this region, depicting the visions they experienced in vision quests believed to represent their spirit helpers and events in the supernatural realm (Whitley 1992, 2000).

The centrality of shamanism to the religious and spiritual life of the Yokuts was demonstrated by the role of shamans in the yearly ceremonial round. The ritual round, performed the same each year, started in the spring with the jimsonweed ceremony, followed by rattlesnake dance and (where appropriate) first salmon ceremony. After returning from seed camps, fall rituals began in the late summer with the mourning ceremony, followed by first seed and acorn rites and then bear dance (Gayton 1930:379). In each case, shamans served as ceremonial officials responsible for specific dances involving a display of their supernatural powers (Kroeber 1925).

Subsistence practices varied from tribelet to tribelet based on the environment of residence. Throughout Native California, and Yokuts territory in general, the acorn was a primary dietary component, along with a variety of gathered seeds. Valley tribes augmented this resource with lacustrine and riverine foods, especially fish and wildfowl. As with many Native California tribes, the settlement and subsistence rounds included the winter aggregation into a few large villages, where stored resources (like acorns) served as staples, followed by dispersal into smaller camps, often occupied by extended families, where seasonally available resources would be gathered and consumed.

Although population estimates vary and population size was greatly affected by the introduction of Euro-American diseases and social disruption, the Yokuts were one of the largest, most successful groups in Native California. Cook (1978) estimates that the Yokuts region contained 27 percent of the aboriginal population in the state at the time of contact; other estimates are even higher. Many Yokuts people continue to reside in the southern San Joaquin Valley today.



## 2.3 PRE-CONTACT ARCHAEOLOGICAL BACKGROUND

The southern San Joaquin Valley region has received minimal archaeological attention compared to other areas of the state. In part, this is because the majority of California archaeological work has concentrated in the Sacramento Delta, Santa Barbara Channel, and central Mojave Desert areas (see Moratto 1984). Although knowledge of the region's prehistory is limited, enough is known to determine that the archaeological record is broadly similar to south-central California as a whole (see Gifford and Schenk 1926; Hewes 1941; Wedel 1941; Fenenga 1952; Elsasser 1962; Fredrickson and Grossman 1977; Schiffman and Garfinkel 1981). Based on these sources, the general prehistory of the region can be outlined as follows.

Initial occupation of the region occurred at least as early as the *Paleoindian Period*, or prior to about 10,000 years before present (YBP). Evidence of early use of the region is indicated by characteristic fluted and stemmed points found around the margin of Tulare Lake, in the foothills of the Sierra, and in the Mojave Desert proper.

Both fluted and stemmed points are particularly common around lake margins, suggesting a terminal Pleistocene/early Holocene lakeshore adaptation similar to that found throughout the far west at the same time; little else is known about these earliest peoples. Over 250 fluted points have been recovered from the Witt Site (CA-KIN-32), located along the western shoreline of ancient Tulare Lake west of the study area, demonstrating the importance of this early occupation in the San Joaquin Valley specifically (see Fenenga 1993). Additional finds consist of a Clovis-like projectile point discovered in a flash-flood cut-bank near White Oak Lodge in 1953 on Tejon Ranch (Glennan 1987a, 1987b). More recently, a similar fluted point was found near Bakersfield (Zimmerman et al. 1989), and a number are known from the Edwards Air Force Base and Boron area of the western Mojave Desert. Although human occupation of the state is well-established during the Late Pleistocene, relatively little can be inferred about the nature and distribution of this occupation with a few exceptions. First, little evidence exists to support the idea that people at that time were big-game hunters, similar to those found on the Great Plains. Second, the western Mojave Desert evidence suggests small, very mobile populations that left a minimal archaeological signature. The evidence from the ancient Tulare Lake shore, in contrast, suggests much more substantial population and settlements which, instead of relying on big game hunting, were tied to the lacustrine lake edge. Variability in subsistence and settlement patterns is thus apparent in California, in contrast to the Great Plains.

Substantial evidence for human occupation across California, however, first occurs during the middle Holocene, roughly 7,500 to 4,000 YBP. This period is known as the *Early Horizon*, or alternatively as the Early Millingstone along the Santa Barbara Channel. In the south, populations concentrated along the coast with minimal visible use of inland areas. Adaptation emphasized hard seeds and nuts with tool-kits dominated by mullers and grindstones (manos and metates). Additionally, little evidence for Early Horizon occupation exists in most inland portions of the state, partly due to a severe cold and dry paleoclimatic period occurring at this time, although a site deposit dating to this age has been identified along the ancient Buena Vista shoreline in Kern County to the south (Rosenthal et al. 2007). Regardless of specifics, Early Horizon population density was low with a subsistence adaptation more likely tied to plant food gathering than hunting.



Environmental conditions improved dramatically after about 4,000 YBP during the *Middle Horizon* (or Intermediate Period). This period is known climatically as the Holocene Maximum (circa 3,800 YBP) and was characterized by significantly warmer and wetter conditions than previously experienced. It was marked archaeologically by large population increase and radiation into new environments along coastal and interior south-central California and the Mojave Desert (Whitley 2000). In the Delta region to the north, this same period of favorable environmental conditions was characterized by the appearance of the Windmill culture which exhibited a high degree of ritual elaboration (especially in burial practices) and perhaps even a rudimentary mound-building tradition (Meighan, personal communication, 1985). Along with ritual elaboration, Middle Horizon times experienced increasing subsistence specialization, perhaps correlating with the appearance of acorn processing technology. Penutian speaking peoples (including the Yokuts) are also posited to have entered the state roughly at the beginning of this period and, perhaps to have brought this technology with them (cf. Moratto 1984). Likewise, it appears the so-called "Shoshonean Wedge" in southern California, the Takic speaking groups that include the Gabrielino/Fernandeño, Tataviam and Kitanemuk, may have moved into the region at that time (Sutton 2009, rather than at about 1500 YBP as first suggested by Kroeber (1925).

Evidence for Middle Horizon occupation of interior south-central California is substantial. For example, in northern Los Angeles County along the upper Santa Clara River, to the south of the San Joaquin Valley, the Agua Dulce village complex indicates occupation extending back to the Intermediate Period, when the population of the village may have been 50 or more people (King et al n.d.). Similarly, inhabitation of the Hathaway Ranch region near Lake Piru, and the Newhall Ranch near Valencia, appears to date to the Intermediate Period (W & S Consultants 1994). To the west, little or no evidence exists for pre-Middle Horizon occupation in the upper Sisquoc and Cuyama River drainages; populations first appear there at roughly 3,500 YBP (Horne 1981). The Carrizo Plain, the valley immediately west of the San Joaquin, experienced a major population expansion during the Middle Horizon (W & S Consultants 2004; Whitley et al. 2007), and recently collected data indicates the Tehachapi Mountains region was first significantly occupied during the Middle Horizon (W & S Consultants 2006). A parallel can be drawn to the inland Ventura County region where a similar pattern has been identified (Whitley and Beaudry 1991), as well as the western Mojave Desert (Sutton 1988a, 1988b), the southern Sierra Nevada (W & S Consultants 1999), and the Coso Range region (Whitley et al. 1988). In all of these areas a major expansion in settlement, the establishment of large site complexes and an increase in the range of environments exploited appear to have occurred sometime roughly around 4,000 years ago. Although most efforts to explain this expansion have focused on local circumstances and events, it is increasingly apparent this was a major southern California-wide occurrence and any explanation must be sought at a larger level of analysis (Whitley 2000). Additionally, evidence from the Carrizo Plain suggests the origins of the tribelet level of political organization developed during this period (W & S Consultants 2004; Whitley et al. 2007). Whether this same demographic process holds for the southern San Joaquin Valley, including the study area, is yet to be determined.

The beginning of the *Late Horizon* is set variously at 1,500 and 800 YBP, with a growing archaeological consensus for the shorter chronology. Increasing evidence suggests the importance of the Middle-Late Horizons transition (AD 800 to 1200) in the understanding of south-central California prehistory. This corresponds to the so-called Medieval Climatic Anomaly, followed by the Little Ice Age, and this general period of climatic instability extended to about A.D. 1860. It



included major droughts matched by intermittent “mega-floods,” and resulted in demographic disturbances across much of the west (Jones et al. 1999). It is believed to have resulted in major population decline and abandonments across south-central California, involving as much as 90% of the interior populations in some regions, including the Carrizo Plain (Whitley et al. 2007). It is not clear whether site abandonment was accompanied by a true reduction in population or an agglomeration of the same numbers of peoples into fewer but larger villages in more favorable locations. Population along the Santa Barbara coast appears to have spiked at about the same time that it collapsed on the Carrizo Plain (ibid). Along Buena Vista Lake, in Kern County, population appears to have been increasingly concentrated towards the later end of the Medieval Climatic Anomaly (Culleton 2006), and population intensification also appears to have occurred in the well-watered Tehachapi Mountains during this same period (W & S Consultants 2006).

What is then clear is that Middle Period villages and settlements were widely dispersed across the south-central California landscape, including in the Sierras and the Mojave Desert. Many of these sites are found at locations that lack existing or known historical fresh water sources. Late Horizon sites, in contrast, are typically concentrated in areas where fresh water was available during the historical period, if not currently.

One extensively studied site that shows evidence of intensive occupation during the Middle-Late Horizons transition (~1,500 – 500 YBP) is the Redtfeldt Mound (CA-KIN-66/H), located northwest of the current study area, near the north shore of ancient Tulare Lake. There, Siefkin (1999) reported on human burials and a host of artifacts and ecofacts excavated from a modest-sized mound. He found that both Middle Horizon and Middle-Late Horizons transition occupations were more intensive than Late Horizon occupations, which were sporadic and less intensive (Siefkin 1999:110-111).

The Late Horizon can then be understood as a period of recovery from a major demographic collapse. One result is the development of regional archaeological cultures as the precursors to ethnographic Native California; suggesting that ethnographic life-ways recorded by anthropologists extend roughly 800 years into the past.

The position of southern San Joaquin Valley prehistory relative to patterns seen in surrounding areas is still somewhat unknown. The presence of large lake systems in the valley bottoms appears to have mediated some of the desiccation seen elsewhere. But, as the reconstruction of Soda Lake in the nearby Carrizo Plain demonstrates (see Whitley et al. 2007) environmental perturbations had serious impacts on lake systems too. Identifying certain of the prehistoric demographic trends for the southern San Joaquin Valley, and determining how these trends (if present) correlate with those seen elsewhere, is a current important research objective.

## 2.4 HISTORICAL BACKGROUND

Spanish explorers first visited the San Joaquin Valley in 1772, but its lengthy distance from the missions and presidios along the Pacific Coast delayed permanent settlement for many years, including during the Mexican period of control over the Californian region. In the 1840s, Mexican rancho owners along the Pacific Coast allowed their cattle to wander and graze in the San Joaquin Valley (JRP Historical Consulting 2009). The Mexican government granted the first ranchos in



the southern part of the San Joaquin Valley in the early 1840s, but these did not result in permanent settlement. It was not until the annexation of California in 1848 that the exploitation of the southern San Joaquin Valley began (Pacific Legacy 2006).

The discovery of gold in northern California in 1848 resulted in a dramatic increase of population, consisting in good part of fortune seekers and gold miners, who began to scour other parts of the state. After 1851, when gold was discovered in the Sierra Nevada Mountains in eastern Kern County, the population of the area grew rapidly. Some new immigrants began ranching in the San Joaquin Valley to supply the miners and mining towns. Ranchers grazed cattle and sheep, and farmers dry-farmed or used limited irrigation to grow grain crops, leading to the creation of small agricultural communities throughout the valley (JRP Historical Consulting 2009).

After the American annexation of California, the southern San Joaquin Valley became significant as a center of food production for this new influx of people in California. The expansive unfenced and principally public foothill spaces were well suited for grazing both sheep and cattle (Boyd 1997). As the Sierra Nevada gold rush presented extensive financial opportunities, ranchers introduced new breeds of livestock, consisting of cattle, sheep and pig (Boyd 1997).

With the increase of ranching in the southern San Joaquin came the dramatic change in the landscape, as non-native grasses more beneficial for grazing and pasture replaced native flora (Preston 1981). After the passing of the Arkansas Act in 1850, efforts were made to reclaim small tracts of land in order to create more usable spaces for ranching. Eventually, as farming supplanted ranching as a more profitable enterprise, large tracts of land began to be reclaimed for agricultural use, aided in part by the extension of the railroad in the 1870s (Pacific Legacy 2006).

Following the passage of state wide ‘No-Fence’ laws in 1874, ranching practices began to decline, while farming expanded in the San Joaquin Valley in both large land holdings and smaller, subdivided properties. As the farming population grew, so did the demand for irrigation. Settlers began reclamation of swampland in 1866, and built small dams across the Kern River to divert water into the fields. By 1880, 86 different groups were taking water from the Kern River. Ten years later, 15 major canals provided water to thousands of acres in Kern County.

During the period of reclaiming unproductive land in the southern San Joaquin Valley, grants were given to individuals who had both the resources and the finances to undertake the operation alone. One small agricultural settlement, founded by Colonel Thomas Baker in 1861 after procuring one such grant, took advantage of reclaimed swampland along the Kern River. This settlement became the City of Bakersfield in 1869, and quickly became the center of activity in the southern San Joaquin Valley, and in the newly formed Kern County. Located on the main stage road through the San Joaquin Valley, the town became a primary market and transportation hub for stock and crops, as well as a popular stopping point for travelers on the Los Angeles and Stockton Road. The Southern Pacific Railroad reached the Bakersfield area in 1873, connecting it with important market towns elsewhere in the state, dramatically impacting both agriculture and oil production (Pacific Legacy 2006).

Three competing partnerships developed during this period which had a great impact on control of water, land reclamation and ultimately agricultural development in the San Joaquin Valley:



Livermore and Chester, Haggin and Carr, and Miller and Lux, perhaps the most famous of the enterprises. Livermore and Chester were responsible, among other things, for developing the large Hollister plow (three feet wide by two feet deep), pulled by a 40-mule team, which was used for ditch digging. Haggin and Carr were largely responsible for reclaiming the beds of the Buena Vista and Kern lakes, and for creating the Calloway Canal, which drained through the Rosedale area in Bakersfield to Goose Lake (Morgan 1914). Miller and Lux ultimately became one of the biggest private property holders in the country, controlling the rights to over 22,000 square miles. Miller and Lux's impact extended beyond Kern County, however. They recognized early-on that control of water would have important economic implications, and they played a major role in the water development of the state. They controlled, for example, over 100 miles of the San Joaquin River with the San Joaquin and Kings River Canal and Irrigation System. They were also embroiled for many years in litigation against Haggin and Carr over control of the water rights to the Kern River. Descendants of Henry Miller continue to play a major role in California water rights, with his great grandson, George Nickel, Jr., the first to develop the concept of water banking, thus creating a system to buy and sell water (<http://exiledonline.com/california-class-war-history-meet-the-oligarch-family-thats-been-scamming-taxpayers-for-150-years-and-counting/>).

The San Joaquin Valley was dominated by agricultural pursuits until the oil boom of the early 1900s, which saw a shift in the region, as some reclaimed lands previously used for farming were leased to oil companies. Nonetheless, the shift of the San Joaquin Valley towards oil production did not halt the continued growth of agriculture (Pacific Legacy 2006). The Great Depression of the 1930s brought with it the arrival of great number of migrants from the drought-affected Dust Bowl region, looking for agricultural labor. These migrants established temporary camps in the valley, staying on long past the end of the drought and the Great Depression, eventually settling in towns such as Bakersfield and Visalia where their descendants live today (Boyd 1997).

The town of Visalia, originally called Four Creeks, was founded in 1852 and is believed to be the earliest settlement in the San Joaquin Valley between Los Angeles and the Stockton area. It was made the county seat of Tulare County in 1853 and became a stop on the Butterfield Overland Mail stage route, which ran from Los Angeles to Stockton, in 1858. Camp Babbitt was created one-mile outside of Visalia during the Civil War, due to a significant number of southern sympathizers in the area. In 1874 the town was incorporated. Visalia has continued to grow due to industry and agriculture in the surrounding area, currently having a population of over 130,000 people ([https://www.visalia.city/about/history\\_of\\_visalia.asp](https://www.visalia.city/about/history_of_visalia.asp); accessed on 9/1/2018)

## **2.5 RESEARCH DESIGN**

### **2.5.1 Pre-Contact Archaeology**

Previous research and the nature of the pre-contact archaeological record suggest two significant NRHP themes, both of which fall under the general Pre-Contact Archaeology area of significance. These are the Expansion of Pre-Contact Populations and Their Adaptation to New Environments; and Adaptation to Changing Environmental Conditions.

The Expansion of Pre-Contact Populations and Their Adaptation to New Environments theme primarily concerns the Middle Horizon/Holocene Maximum. Its period of significance runs from



about 4,000 to 1,500 YBP. It involves a period during which the prehistoric population appears to have expanded into a variety of new regions, developing new adaptive strategies in the process.

The Adaptation to Changing Environmental Conditions theme is partly related to the Holocene Maximum, but especially to the Medieval Climatic Anomaly. The period of significance for this theme, accordingly, extends from about 4,000 to 800 YBP. This theme involves the apparent collapse of many inland populations, presumably with population movements to better environments such as the coast. It is not yet known whether the southern San Joaquin Valley, with its system of lakes, sloughs and swamps, experienced population decline or, more likely, population increase due to the relatively favorable conditions of this region during this period of environmental stress.

The range of site types that are present in this region include:

- Villages, primarily located on or near permanent water sources, occupied by large groups during the winter aggregation season;
- Seasonal camps, again typically located at water sources, occupied during other parts of the year tied to locally and seasonally available food sources;
- Special activity areas, especially plant processing locations containing bedrock mortars (BRMs), commonly (though not exclusively) near existing oak woodlands, and invariably at bedrock outcrops or exposed boulders;
- Stone quarries and tool workshops, occurring in two general contexts: at or below naturally occurring chert exposures on the eastern front of the Temblor Range; and at quartzite cobble exposures, often on hills or ridges;
- Ritual sites, most commonly pictographs (rock art) found at rockshelters or large exposed boulders, and cemeteries, both commonly associated with villages; and
- A variety of small lithic scatters (low density surface scatters of stone tools).

The first requisites in any research design are the definition of site age/chronology and site function. The ability to determine either of these basic kinds of information may vary between survey and test excavation projects, and due to the nature of the sites themselves. BRM sites without associated artifacts, for example, may not be datable beyond the assumption that they post-date the Early Horizon and are thus less than roughly 4,000 years old.

A second fundamental issue involves the place of site in the settlement system, especially with respect to water sources. Because the locations of the water sources have sometimes changed over time, villages and camps are not exclusively associated with existing (or known historical) water sources (W&S Consultants 2006). The size and locations of the region's lakes, sloughs and delta channels, to cite the most obvious example, changed significantly during the last 12,000 years due to major paleoclimatic shifts. This altered the area's hydrology and thus prehistoric settlement patterns. The western shoreline of Tulare Lake was relatively stable, because it abutted the Kettleman Hills. But the northern, southern and eastern shorelines comprised the near-flat valley floor. Relatively minor fluctuations up or down in the lake level resulted in very significant changes in the areal expression of the lake on these three sides, and therefore the locations of villages and camps. Although perhaps not as systematic, similar changes occurred with respect to stream channels and sloughs, and potential site locations associated with them. This circumstance



has implications for predicting site locations and archaeological sensitivity. Site sensitivity is then hardest to predict in the open valley floor, where changes in stream courses and lake levels occurred on numerous occasions.

Nonetheless, the position of southern San Joaquin Valley prehistory relative to the changing settlement and demographic patterns seen in surrounding areas is still somewhat unknown (cf. Siefkin 1999), including to the two NRHP themes identified above. The presence of large lake systems in the valley bottoms can be expected to have mediated some of the effects of desiccation seen elsewhere. But, as the reconstruction of Soda Lake in the nearby Carrizo Plain demonstrates (see Whitley et al. 2007), environmental perturbations had serious impacts on lake systems too. Identifying certain of the prehistoric demographic trends for the southern San Joaquin Valley, and determining how these trends (if present) correlate with those seen elsewhere, is another primary regional research objective.

Archaeological sites would primarily be evaluated for NRHP eligibility under Criterion D, research potential.

### **2.5.2 Historical Archaeology: Native American**

Less research has been conducted on the regional historical archaeological record, both Native American and Euro-American. For Native American historical sites, the ethnographic and ethnohistoric periods in the southern San Joaquin Valley extended from first Euro-American contact, in AD 1772, to circa 1900, when tribal populations were first consolidated on reservations. The major significant historic NRHP themes during this period of significance involve the related topics of Historic-Aboriginal Archaeology, and Native American Ethnic Heritage. More specifically, these concern the Adaptation of the Indigenous Population to Euro-American Encroachment and Settlement, and their Acculturation to Western Society. These processes included the impact of missionization on the San Joaquin Valley (circa 1800 to about 1845); the introduction of the horse and the development of a San Joaquin Valley “horse culture,” including raiding onto the coast and Los Angeles Basin (after about 1810); the use of the region as a refuge for mission neophyte escapees (after 1820); responses to epidemics from introduced diseases (especially in the 1830s); armed resistance to Euro-American encroachment (in the 1840s and early 1850s); the origins of the reservation system and the development of new tribal organizations and ethnic identities; and, ultimately, the adoption of the Euro-American society’s economic system and subsistence practices, and acculturation into that society.

Site types that have been identified in the region dating to the ethnographic/ethnohistoric period of significance primarily include villages and habitations, some of which contain cemeteries and rock art (including pictographs and cupules). Dispersed farmsteads, dating specifically from the reservation period or post-1853, would also be expected. The different social processes associated with this historical theme may be manifest in the material cultural record in terms of changing settlement patterns and village organization (from traditional nucleated villages to single family dispersed farmsteads); the breakdown of traditional trading networks with their replacement by new economic relationships; changing subsistence practices, especially the introduction of agriculture initially via escaped mission neophytes; the use of Euro-American artifacts and materials rather than traditional tools and materials; and, possibly, changing mortuary practices.



Inasmuch as culture change is a primary intellectual interest in archaeology, ethnographic villages and habitations may be NRHP eligible under Criterion D, research potential. Rock art sites, especially pictographs, may be eligible under Criterion C as examples of artistic mastery. They may also be eligible under Criterion A, association with events contributing to broad patterns of history. Ethnographic sites, further, may be NRHP eligible as Traditional Cultural Properties due to potential continued connections to tribal descendants, and their resulting importance in traditional practices and beliefs, including their significance for historical memory, tribal- and self-identity formation, and tribal education.

For Criteria A, C and D, eligibility requires site integrity (including the ability to convey historical association for Criterion A). These may include intact archaeological deposits for Criterion D, as well as setting and feel for Criteria C and A. Historical properties may lack physical integrity, as normally understood in heritage management, but still retain their significance to Native American tribes as Traditional Cultural Properties if they retain their tribal associations and uses.

### 2.5.3 Historical Archaeology: Euro-American

Approaches to historical Euro-American archaeological research relevant to the region have been summarized by Caltrans (1999, 2000, 2007, 2008). These concern the general topics of historical landscapes, agriculture and farming, irrigation (water conveyance systems), and mining. Caltrans has also identified an evaluation matrix aiding determinations of eligibility. The identified research issues include site structure and land-use (lay-out, land use, feature function); economics (self-sufficiency, consumer behavior, wealth indicators); technology and science (innovations, methods); ethnicity and cultural diversity (religion, race); household composition and lifeways (gender, children); and labor relations. Principles useful for determining the research potential of an individual site or feature are conceptualized in terms of the mnemonic AIMS-R, as follows:

1. *Association* refers to the ability to link an assemblage of artifacts, ecofacts, and other cultural remains with an individual household, an ethnic or socioeconomic group, or a specific activity or property use.
2. *Integrity* addresses the physical condition of the deposit, referring to the intact nature of the archaeological remains. In order for a feature to be most useful, it should be in much the same state as when it was deposited. However, even disturbed deposits can yield important information (e.g., a tightly dated deposit with an unequivocal association).
3. *Materials* refers to the number and variety of artifacts present. Large assemblages provide more secure interpretations as there are more datable items to determine when the deposit was made, and the collection will be more representative of the household, or activity. Likewise, the interpretive potential of a deposit is generally increased with the diversity of its contents, although the lack of diversity in certain assemblages also may signal important behavioral or consumer patterns.
4. *Stratigraphy* refers to the vertically or horizontally discrete depositional units that are distinguishable. Remains from an archaeological feature with a complex stratigraphic



sequence representative of several events over time can have the added advantage of providing an independent chronological check on artifact diagnosis and the interpretation of the sequence of environmental or sociocultural events.

5. *Rarity* refers to remains linked to household types or activities that are uncommon. Because they are scarce, they may have importance even in cases where they otherwise fail to meet other thresholds of importance (Caltrans 2007:209).

For agricultural sites, Caltrans (2007) has identified six themes to guide research: Site Structure and Land Use Pattern; Economic Strategies; Ethnicity and Cultural Adaptation; Agricultural Technology and Science; Household Composition and Lifeways; and Labor History. Expected site types would include farm and ranch homesteads and facilities, line camps, and refuse dumps. In general terms, historical Euro-American archaeological sites would be evaluated for NRHP eligibility under Criterion D, research potential. However, they also potentially could be eligible under Criteria A and B for their associate values with major historical trends or individuals. Historical landscapes might also be considered.

Historical structures, which are most likely to be pertinent to the current study area, are typically evaluated for NRHP eligibility under Criteria A and/or B, for their associated values with major historical trends or individuals, and C for potential design or engineering importance.







### **3. ARCHIVAL RECORDS SEARCH**

#### **3.1 ARCHIVAL RECORDS SEARCH**

In order to determine whether the study area had been previously surveyed for cultural resources, and/or whether any such resources were known to exist on any of them, an archival records search was conducted by the staff of the Southern San Joaquin Valley Information Center (IC) on 24 July 2018. The records search was completed to determine: (i) if prehistoric or historical archaeological sites had previously been recorded within the study areas; (ii) if the project area had been systematically surveyed by archaeologists prior to the initiation of this field study; and/or (iii) whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive. Records examined included archaeological site files and maps, the NRHP, Historic Property Data File, California Inventory of Historic Resources, and the California Points of Historic Interest.

According to the IC records (Confidential Appendix A), no previous surveys have been completed within the project area and no tribal or archaeological resources are known to exist within it. One previous survey had been completed within 0.5-miles of the project area (IC# TU-534; Peak et al. 1975, Archaeological Assessment of Cultural Resources, Mid-Valley Canal Project, Fresno, Tulare, Merced and Kings Counties, California). Only a single cultural resource had been recorded within 0.5-miles of the project area: P-54-2179/CA-TUL-3053H, the Evans Ditch, located northeast of the project area.

A records search was also conducted at the Native American Heritage Commission (NAHC) Sacred Lands File (Confidential Appendix A). No sacred sites or tribal cultural resources were known in or in the vicinity of the APE. Outreach letters were then sent to the tribal contact list provided by the NAHC; follow-up phone calls were made one month later. No responses were received from any of the contacts.







## 4. METHODS AND RESULTS

### 4.1 FIELD METHODS

An intensive Phase I survey of the 7763 Avenue 280 project area was conducted by Robert Azpitarte, B.A., ASM Associate Archaeologist, on 9 August 2018. The field methods employed included intensive pedestrian examination of the ground surface for evidence of archaeological sites in the form of artifacts, surface features (such as bedrock mortars, historical mining equipment), and archaeological indicators (e.g., organically enriched midden soil, burnt animal bone); the identification and location of any discovered sites, should they be present; tabulation and recording of surface diagnostic artifacts; site sketch mapping; preliminary evaluation of site integrity; and site recording, following the California Office of Historic Preservation Instructions for Recording Historic Resources, using DPR 523 forms. Parallel survey transects spaced at 15-m apart were employed for the inventory. These covered the entirety of the approximately 2-ac APE.

### 4.2 SURVEY RESULTS

The 20-acres project area is open, flat land surrounded by corn fields to the east, west and south (Figure 2). The groundsurface of the project area has been heavily disturbed by previous agricultural use. A medium to low density of low ground cover, consisting primarily of intrusive grasses, was present at the time of the survey. Groundsurface visibility was however adequate for intensive surveying.

A L-shaped compound containing three standing structures is present in the northwest corner of the 20-acres property (Figure 3). This compound is surrounded by a 6-feet high chain link fence. The structures consist of a stucco office/administration building, a large sheet-metal-sided barn/shop, and a well with water tower overhead. Based on USGS topographical quadrangles, these structures were built sometime before 1971, probably during the late 1960s. They are still in use and will be retained and used as part of the batch plant facility. A large stock-pile of broken concrete is located between the office building and water tower, presumably in anticipation of future concrete recycling at this location.

No archaeological resources of any kind were identified within the 20-acres project area.





**Figure 2.** Batch plant project overview, from southwest.



**Figure 3.** Standing structures within batch plant project area, looking south from Avenue 280.



## **5. SUMMARY AND RECOMMENDATIONS**

An intensive Phase I survey was conducted for 7763 Avenue 280 (APN 119-010-039), a proposed batch plant, Visalia, Tulare County, California. A records search was conducted at the Southern San Joaquin Valley Archaeological Information Center, California State University, Bakersfield. This indicated that the study area had not been previously surveyed and that no cultural resources were known to exist within it. The Native American Heritage Commission Sacred Lands Files were also consulted and no sacred sites or tribal cultural resources were known within or in the vicinity of the APE.

The Phase I survey fieldwork was conducted with parallel transects spaced at 15-meter intervals across the approximately 20-acres project area. No archaeological resources of any kind are present within this property.

### **5.1 RECOMMENDATIONS**

An intensive Class III inventory demonstrated that the proposed batch plant project study area lacks archaeological resources of any kind. The proposed project therefore does not have the potential to result in adverse impacts or effects to significant historical resources or historic properties. In the unlikely event that cultural resources are encountered during project construction or use, however, it is recommended that an archaeologist be contacted to assess the discovery.







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**CONFIDENTIAL APPENDIX A:**  
**Records Search and Native American Heritage Commission**  
**Outreach**



## **APPENDIX D**

### **GEOLOGY AND SOILS REPORT**



# **GEOLOGY AND SOILS REPORT FOR PROPOSED CONCRETE AND ASPHALT BATCH PLANT**

**PREPARED FOR:**

**DUNN'S CONSTRUCTION, INC.**

15602 AVENUE 196  
VISALIA, TULARE COUNTY, CALIFORNIA 93292  
APN 119-010-039

**PREPARED BY:**



PO BOX 1020  
EXETER, CA 93221

**SEPTEMBER 27, 2018**

**SUBMITTED TO:**

4CREEKS, INC.  
324 SOUTH SANTA FE STREET, SUITE A  
VISALIA, CALIFORNIA 93292





September 27, 2018

To:

**Mr. Richard Walker**

Senior Planner/Senior Project Manager

4Creeks, Inc.

324 S. Santa Fe Street, Suite A

Visalia, CA 93292

From:

**Fred Mason**

**Professional Geologist**

Mason Geoscience

PO Box 102

Exeter, CA 93221

**SUBJECT: GEOLOGY AND SOILS REPORT FOR PROPOSED CONCRETE AND ASPHALT BATCH PLANT, DUNN'S CONSTRUCTION, 7763 AVENUE 280, APN# 119-010-039, VISALIA, TULARE COUNTY, CALIFORNIA.**

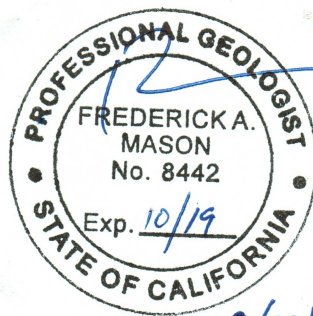
Dear Mr. Walker:

The attached report has been prepared to assess potential geologic hazards and impacts to the site including from an on-site wastewater treatment system (OWTS). The report includes discussion of the natural setting of the site and requirements outlined in the Tulare County Local Area Management Program (LAMP) for OWTS. If you have any questions or concerns, please contact me at (559) 936-3695.

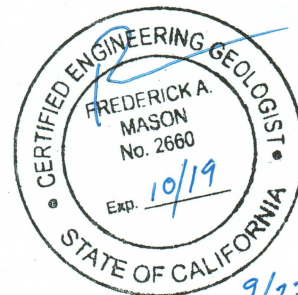
Respectfully submitted,

---

Fred Mason, PG, CEG, CHG  
Principal Geologist



9/27/18



9/27/18



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## FIGURES

FIGURE 1. VICINITY MAP

FIGURE 2. SITE MAP

FIGURE 3. GEOLOGIC MAP

FIGURE 4A. FAULT MAP

FIGURE 4B. FAULT MAP EXPLANATION

FIGURE 5. EARTHQUAKE SHAKING POTENTIAL MAP

FIGURE 6. DEPTH TO GROUNDWATER BENEATH THE SITE

FIGURE 7. WATER QUALITY, SHELL WATER WELL

FIGURE 8. WATER QUALITY, SYCAMORE ACADEMY WATER WELL

FIGURE 9. STORM AND SEWER MAP

## APPENDICES

APPENDIX A: NRCS SITE SOILS REPORT





## I. INTRODUCTION

Dunn's Construction, Inc. is proposing to build a concrete and asphalt batch plant on a 19.98 acre site in Visalia, California (Figures 1 and 2). The site currently contains an approximate 9,000 square foot shop and approximate 900 square foot residence that appears to have been converted to an office. The office septic system is constructed with a dual chamber septic tank that is four feet wide by nine feet long by four feet deep and approximately 1,000 gallon volume. Effluent from the septic tank is leached into a four foot diameter by 30 foot deep concrete lined seepage pit.

Dunn's Construction is proposing a concrete mixing plant, cement powder storage, aggregate storage, and batch operations to produce ready mix concrete. Cement and fly ash will be stored in silos approximately 40 feet tall. The aggregate will be pushed into piles approximately 15 feet tall as trucks bring material in. It is estimated that the project will produce approximately 100,000 cubic yards of concrete per year resulting in approximately 200 loads of concrete going out per week and 110 loads of aggregate and 20 loads of cement coming in per week.

A portable concrete and asphalt recycling plant will be onsite a couple times per year depending on the stockpile of materials available. The project will accept broken concrete and asphalt brought in by contractors to be stockpiled approximately 15 feet high. Once there is enough rubble, a portable crushing plant will take the rubble and mix it into road base. It is estimated that approximately 30,000 tons of base rock will be produced per year resulting in approximately 30 loads of rubble coming in per week and 25 loads of base going out per week, on average.

A proposed hot mix asphalt plant will be similar to the concrete plant except the material will be heated. The aggregate will be brought in and dumped into stockpiles approximately 15 feet high until used in the plant. The asphalt plant will receive oil to be stored in containers and heated with propane. The oil and aggregate will be mixed together and stored in a silo approximately 40 feet tall until shipped out. It is estimated that approximately 125,000 tons will be produced per year resulting in approximately 100 loads of aggregate coming in per week, seven loads of oil coming in per week, five loads of propane coming in per week, and approximately 100 loads of asphalt going out per week.

Site details are as follows:

Current Facility Name:-----Dunn's Construction Inc.  
Address:-----7763 Avenue 280, Visalia, California  
County:-----Tulare County  
Assessor's Parcel Numbers-----119-010-039  
Township, Range, Section:-----Township 19 South, Range 24 East, Section 8  
Baseline Meridian:-----Mount Diablo Baseline and Meridian  
Owner:-----Mark Dunn  
Dunn's Construction, Inc.  
15602 Ave 196, Visalia, California, 93292  
(559) 734-5373



## A. Purpose and Scope

This report has been prepared to assess potential geologic hazards and impacts to the site including information for an on-site wastewater treatment system (OWTS). The geology and hydrogeology of the site are important factors regarding OWTS. Therefore, data pertaining to the geology and hydrogeology of the site including soil, rock, and groundwater were evaluated.

The assessment required reviewing geologic and hydrogeologic information for the site and includes qualitative and quantitative geologic and hydrogeologic data. These data, submitted herein, include discussion of the natural setting of the site and requirements outlined in the Tulare County Local Area Management Program (LAMP) for OWTS. A California Environmental Quality Act (CEQA) checklist is included with discussion regarding potential environmental impacts from the proposed project. The environmental impacts with regard to CEQA include thresholds of significance as identified in the CEQA checklist and relate to the following criteria.

- Located on a fault line
- Hazard to people or property
- Project subject to landslides
- Located on a liquefaction zone

## B. Regulatory Requirements

### 1. California Environmental Quality Act (CEQA) Requirements

The Draft Environmental Impact Report (DEIR) addresses potential impacts to Geology and Soils. As required in Section 15126, all phases of the proposed project will be considered as part of the potential environmental impact.

### 2. Federal Agencies & Regulations

None that apply to the proposed Project.

### 3. State Agencies & Regulations

#### i. Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) of 1990 directs the Department of Conservation, California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides and amplified ground shaking. The purpose of the SHMA is to minimize loss of life and property through the identification, evaluation, and mitigation of seismic hazards.

Staff geologists in the Seismic Hazard Zonation Program gather existing geological, geophysical and geotechnical data from numerous sources to produce the Seismic Hazard Zone Maps. They integrate and



interpret these data regionally in order to evaluate the severity of the seismic hazards and designate as Zones of Required Investigation (ZORI) those areas prone to liquefaction and earthquake-induced landslides. Cities and counties are then required to use the Seismic Hazard Zone Maps in their land use planning and building permit processes (Fact Sheet, 2018).

## ii. California Building Code

The California Building Standards Code is the established minimum standard for the design and construction of buildings and structures in California. State law mandates that local government enforce Title 24 standards or approved local ordinances. January 1, 2017 is the statewide effective date, established by the California Building Standards Commission (CBSC), for the 2016 California Building Standards Code. All applications for a building permit that occur on or after January 1, 2017 are subject to compliance with the 2016 Code (CBC, 2016).

## iii. Alquist-Priolo Earthquake Fault Zoning Act

The purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to regulate development near active faults so as to mitigate the hazard of surface fault rupture. The stated intent of the Act is to "...provide policies and criteria to assist cities, counties, and state agencies in the exercise of their responsibility to prohibit the location of developments and structures for human occupancy across the trace of active faults". The Act also requires the State Geologist to compile maps delineating earthquake fault zones and to submit maps to all affected cities, counties, and state agencies for review and comment. For the last 44 years, Special Publication 42 (SP 42) has been the vehicle by which the State Geologist, through the California Geological Survey, has informed affected agencies and the general public how and where Alquist-Priolo Earthquake Fault Zones are prepared (SP 42, 2018).

# 4. Local Policy & Regulations

## i. Tulare County General Plan Policies

The General Plan has a number of policies that apply to projects within Tulare County. General Plan policies that relate to the proposed project are listed below.

ERM-7.2 Soil Productivity - The County shall encourage landowners to participate in programs that reduce soil erosion and increase soil productivity. To this end, the County shall promote coordination between the Natural Resources Conservation Service, Resource Conservation Districts, UC Cooperative Extension, and other similar agencies and organizations.

ERM-7.3 Protection of Soils on Slopes - Unless otherwise provided for in the General Plan, building and road construction on slopes of more than 30 percent shall be prohibited, and development proposals on slopes of 15 percent or more shall be accompanied by plans for control or prevention of erosion, alteration of surface water runoff, soil slippage, and wildfire occurrence.

HS-2.1 Continued Evaluation of Earthquake Risks - The County shall continue to evaluate areas to determine levels of earthquake risk.



HS-2.4 Structure Siting - The County shall permit development on soils sensitive to seismic activity permitted only after adequate site analysis, including appropriate siting, design of structure, and foundation integrity.

HS-2.7 Subsidence - The County shall confirm that development is not located in any known areas of active subsidence. If urban development may be located in such an area, a special safety study will be prepared and needed safety measures implemented. The County shall also request that developments provide evidence that its long-term use of groundwater resources, where applicable, will not result in notable subsidence attributed to the new extraction of groundwater resources for use by the development.

HS-2.8 Alquist-Priolo Act Compliance - The County shall not permit any structure for human occupancy to be placed within designated Earthquake Fault Zones (pursuant to and as determined by the Alquist-Priolo Earthquake Fault Zoning Act; Public Resource code, Chapter 7.5) unless the specific provision of the Act and Title 14 of the California Code of Regulations have been satisfied.



## II. SITE DESCRIPTION

The site is located near the southwest boundary of the City of Visalia within a predominantly agricultural setting (Figure 1). The current site is unoccupied and comprises approximately 20 acres with a shop and former residence converted to an office. The shop and office occupy approximately 2.5 acres within the 20 acre parcel. The office and shop are surrounded by locked chain-link fencing. The remaining parcel is farmed in seasonal crops. There is one domestic water well on site within the fenced area connected to an above ground water storage tank. There are two agricultural water wells on the site located near the northeast corner of the site (Figure 2). The northernmost well is an older well and is not in use. A newer, approximately three year old well, is also located near the northeast corner of the site 160 feet south of the older agricultural well.

### A. Site Location and Access

The study area is located within the Kaweah Subbasin of the Tulare Lake Hydrologic Region of the San Joaquin Valley that comprises the southern extent of the Great Central Valley of California. The city of Visalia and site are situated within the farming region of Tulare County. Predominant crops grown around the site include alfalfa, corn, cotton, milo, wheat, walnuts, and almonds.

To access the site from the north of Visalia from the intersection of Highway 198 and Highway 99, continue 2.5-miles south to the Avenue 280 (Caldwell Avenue) off-ramp. Go west on Avenue 280 0.8-miles to the site on the south side of Avenue 280. From the south, go approximately 5-miles north from Tulare to the Avenue 280 exit and go west 0.8-miles. The site is on the south side of Avenue 280 (Figure 1).

### B. Topographic Setting and Drainage Patterns

Topography of the site and surrounding vicinity is relatively flat with a ground surface slope down to the west-southwest of approximately 6-feet per mile (0.1% slope) (Figure 1). Surface water drainage is managed predominantly by farming and irrigation in the region. Fields are routinely leveled by laser to direct irrigation to tailwater ponds. The South Fork of the Persian Ditch is located 1,110-feet northwest of the site. Evans Ditch is located 1,180-feet southeast of the site. These canals direct surface water for irrigation of surrounding farmland. Regional drainage follows topography generally from northeast to southwest.

### C. Proposed Development

The proposed development will include a concrete mixing plant, cement powder storage, aggregate storage, and batch operations to produce ready mix concrete. A proposed hot mix asphalt plant will be on site that is similar to the concrete plant, except the material will be heated up. An overlay of the proposed project is shown on Figure 2.

### D. Climate

Runoff from the Sierra Nevada mountains to the west provides good quality water for irrigation along with local groundwater. The region around the site experiences a long growing season (April through



October), warm to hot summers, and a fall harvest period usually sparse in rain. Winters are moist and often blanketed with tule fog. The valley floor is surrounded on three sides by the Sierra Nevada Mountain Range to the east, the Coast Ranges to the west, and the Tehachapi and Transverse Ranges to the south, resulting in a comparative isolation of the valley from marine effects. Because of this and the comparatively cloudless summers, normal maximum temperature advances to a high of 101 degrees Fahrenheit during the latter part of July. Valley winter temperatures are usually mild, but during infrequent cold spells air temperature occasionally drops below freezing. Heavy frost occurs during the winter in most years, and the geographic orientation of the valley generates prevailing winds from the northwest (Water Plan, 2013).

The mean annual precipitation in the valley portion of the region ranges from about 6 to 11 inches, with 67 percent falling from December through March, and 95 percent falling from October through April. The region receives more than 70 percent of the possible amount of sunshine during all but four months, November through February. In the winter months, tule fog, which can last up to two weeks, reduces sunshine to a minimum (Water Plan, 2013).



### III. GEOLOGIC CONDITIONS

#### A. Regional Geologic Setting

The City of Visalia and subject site are located within the Kaweah Subbasin of the Tulare Lake Hydrogeologic Region. The site is geologically located within the distal end of the coalescing alluvial fans along the east half of the valley. Over time, glaciers and streams have eroded the Sierra Nevada Mountain Range and Coast Ranges and deposited interfingering alluvial materials of clay, silt, sand, and gravel filling the present-day valley. These deposits have formed vast fluvial fans at the base of the mountain ranges that spread laterally and parallel to the mountain fronts. The major alluvial geomorphic feature is the Kaweah River Fan and the major fan to the north is the Kings River Fan emanating from the Sierra Nevada Mountain Range. On a whole, all of these fans systems have coalesced forming a large heterogenous alluvial plain, upon which the site is located.

Sediments of the fan systems have been eroded and transported toward the west from the Sierra Nevada Mountain Range. The site is underlain by fluvial sediments transported and deposited by nearby streams aggrading (building up) vertically and laterally into coalescing sequences that thin to a feather edge eastward. The feather edge of alluvium contacts the igneous and metamorphic rocks of the Sierra Nevada Mountain Range that comprise the basement; or primarily impermeable vertical boundary between the transported sediments wholly named “valley fill deposits”.

As these fans were deposited over time, soil horizons were formed during quiescent periods between erosion and deposition. Eventually these soil horizons were buried and are generally identified as oxidized deposits. The abrupt heterogenous nature of the fan deposits are overlain and underlain by unconformable contacts identified by soil horizons that form sequences, or pockets of clay, sand, silt, and gravel that are very difficult to correlate laterally and vertically.

#### B. Local Geologic Setting

##### 1. Stratigraphy

The geologic map on Figure 3 shows Holocene Quaternary alluvium exposed at ground surface throughout the site area. White (2016) reported three geologic Formations beneath Visalia ranging in age from Pliocene to recent Holocene to a depth of 132-feet below land surface. From oldest to youngest, these include the Laguna Formation, Turlock Lake Formation (includes the Corcoran Clay), Riverbank Formation, and Modesto Formation. These deposits are overlain by a younger thin mantle of Holocene deposits informally named the Post Modesto I (oldest), II, III, and IV (youngest). They are generally unweathered and form thin alluvial fans that incise over the older Modesto Formation (White, 2016).

##### 2. Surface Soil

The United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey mapping services indicates the site is underlain by Akers-Akers, saline-Sodic complex and Nord fine sandy loam. Typical profiles of the Akers-Akers complex is 60 inches and 72 inches for the Nord fine sandy loam.



The Akers-Akers, saline-Sodic complex soil is classified as prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season. The Akers is a well-drained fan remnant soil on 0-2% slopes. Maximum reported salinity of the soil is nonsaline to slightly saline. The Akers, saline-sodic is also a fan remnant soil on 0-2% slopes and is slightly saline to moderately saline. Saturated hydraulic conductivity of the Akers-Akers, saline-Sodic complex and Nord fine sandy loam ranges from 0.6 to 2.0 inches per hour. The Nord fine sandy loam is saline to very slightly saline and is located on 0 to 1% slopes. The NRCS report for the site is provided in Appendix A.

### 3. Depth to Bedrock

The basement rock surface beneath Visalia dips to the southwest and is an extension of the Sierra Nevada batholith. The basement complex rocks are buried beneath valley fill deposits that thicken toward the axis of the valley. More than 14,000 feet of Cretaceous, Tertiary, and Quaternary age sediments are buried beneath the Tulare Lake bed near the axial portion of the valley.

Depth to bedrock beneath Visalia was estimated by Smith (1964) to be approximately 2,000 feet beneath extensive deposits of marine and mixed marine and continental sediments that are the result of erosion from the Coast Ranges, Cascade Range, and Sierra Nevada Mountains. Continental deposits eroded from the Sierra Nevada Mountain Range and Coast Ranges have formed valley sediments that are a heterogeneous mix of gravels, sands, silts, and clays. Unconsolidated deposits overlie the marine and continental deposits and form the floor of the San Joaquin Valley (Croft, 1972).



#### IV. SEISMICITY

Tulare County is divided into two major physiographic and geologic provinces; the Sierra Nevada Mountains and the Central Valley. The Sierra Nevada Physiographic Province, in the eastern portion of the county, is underlain by metamorphic and igneous rock. It consists mainly of homogeneous granitic rocks, with several islands of older metamorphic rock. The central and western parts of the county are part of the Central Valley Province, underlain by marine and non-marine sedimentary rocks. The valley is a relatively flat alluvial plain with soil consisting of material deposited by uplift of the mountains. The foothill area of the county is essentially a transition zone, containing old alluvial soils that have been dissected by the west-flowing rivers and streams that carry runoff from the Sierra Nevada Mountains. The gently rolling foothills topography contains exposures of bedrock outcrops. The native mountain soils are generally quite dense and compact (General Plan, 2010).

Seismicity varies greatly between the two major geologic provinces represented in Tulare County. The Central Valley is an area of relatively low tectonic activity bordered by mountain ranges on either side. The Sierra Nevada Mountains, partially located within Tulare County, are the result of movement of tectonic plates which resulted in the formation of the mountain range. The Coast Range on the west side of the Central Valley is also a result of these forces and continued shifting tectonic activity of the Pacific and North American plates continues to elevate these ranges. Seismic hazards in Tulare County generally result from movement along faults associated with the formation of these ranges (General Plan, 2010).

The purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to regulate development near active faults so as to mitigate the hazard of surface fault rupture. The stated intent of the Act is to "...provide policies and criteria to assist cities, counties, and state agencies in the exercise of their responsibility to prohibit the location of developments and structures for human occupancy across the trace of active faults." The Act also requires the State Geologist to compile maps delineating earthquake fault zones and to submit maps to all affected cities, counties and state agencies for review and comment. For the last 44 years, Special Publication 42 has been the vehicle by which the State Geologist, through the California Geological Survey, has informed affected agencies and the general public how and where Alquist-Priolo Earthquake Fault Zones are prepared (CGS, 2018).

The State Mining and Geology Board established Policies and Criteria in accordance with the Alquist-Priolo Fault zoning Act of 1972. They defined an "active fault" as one which has "had surface displacement within Holocene time (about the last 11,000 years). A "potentially active fault" was considered to be any fault that "showed evidence of surface displacement during Quaternary time (last 1.6 million years). Because of the large number of potentially active faults in California, the State Geologist adopted additional definitions and criteria in an effort to limit zoning to only those faults with a relatively "high" potential for surface rupture. Thus, the term "sufficiently active" was defined as a fault for which there was evidence of Holocene surface displacement. This term was used in conjunction with the term "well-defined," which relates to the ability to locate a Holocene fault as a surface or near-surface feature (Jennings and Bryant, 2010).

Another special definition of faults is used by the U.S. Bureau of Reclamation in the design of dams. According to this agency, any fault exhibiting relative displacement within the past 100,000 years is an active fault. Depending on the type of structure being planned and the acceptable risk to be taken, the definition of an active fault may be based on the last 11,000 to 100,000 years or on repeated movements



during the past 500,000 years.

The term "active fault" is best avoided altogether when seismic risk is not a consideration. For simplicity, describing the characteristics of faults, such terms as "historic fault," "Holocene fault," "Quaternary fault," "pre-Quaternary fault," or "seismically active fault" are preferable (Jennings and Bryant, 2010).

#### **A. Faults Near the Study Area**

The nearest faults and fault systems were reviewed in closest proximity to the site. The California Geological Survey Fault Activity Map is viewable on the worldwide web at: [maps.conservation.ca.gov/cgs/fam/](https://maps.conservation.ca.gov/cgs/fam/) and a portion of the map is shown on Figure 4A. The map shows the locations of known faults and indicates the latest age when displacements took place, according to available data. The displacements may have been associated with earthquakes or may have been the result of gradual creep along the fault surface (CGS, 2010).

The closest Pre-Quaternary faults (older than 2.58 Ma) were identified on the Fault Activity Map of Figure 4A. According to Jennings (1985), Pre-Quaternary faults are defined as older than Quaternary (older than 2 million years) or faults without recognized Quaternary displacement. It should be noted that Quaternary faults may be young and possibly may become active. Many faults have been included with the faults designated as Pre-Quaternary because of lack of age data. Pre-Quaternary faults were identified nearest to the site and are identified on Figure 4A with an Explanation on Figure 4B.

The purpose of the Alquist-Priolo Earthquake Fault Zoning Act (A-P Act) is to address the hazard of surface fault rupture through the regulation of development in areas near Holocene-active faults and prevent the construction of structures for human occupancy across traces of active faults (California Public Resources Code (CPRC), Division 2, Chapter 7, Section 2621.5) (CGS, 2018).

For purposes of the A-P Act, active faults are defined by the State Mining and Geology Board (SMGB) as those faults that have "...had surface displacement during Holocene time...". In order to provide clarity regarding the term active fault, Special Publication 42 uses the term Holocene-active fault (11,700 years before present ) to describe faults that are specifically regulated by the A-P Act. The A-P Act only addresses the hazard of surface fault rupture for Holocene-active faults. Faults that have moved prior to the Holocene, referred to as Pre-Holocene faults, may also have the potential to rupture but are not addressed by the A-P Act (CGS, 2018).

A fault may only be presumed to be inactive based on satisfactory geologic evidence; however, the evidence necessary to prove inactivity sometimes is difficult to obtain and locally may not exist.

Terms such as "potentially active" and "inactive" have been commonly used in the past to describe faults that do not meet the SMGB definition of "active fault." However, these terms have the potential to cause confusion from a regulatory perspective, as they are not defined in the A-P Act and may have other non-regulatory meanings in the scientific literature or in other regulatory environments. In order to avoid these issues, introduced below are terms that provide added precision when used in classifying faults regulated by the A-P Act. Faults are classified into three categories on the basis of the absolute age of their most recent movement (SP 42).



- 1) Holocene-active faults: Faults that have moved during the past 11,700 years. This age boundary is an absolute age (number of years before present) and is not a radiocarbon ( $^{14}\text{C}$ ) age determination, which requires calibration in order to derive an absolute age.
- 2) Pre-Holocene faults: Faults that have not moved in the past 11,700 years, thus do not meet the criteria of “Holocene-active fault” as defined in the A-P Act and SMGB regulations. This class of fault may be still capable of surface rupture but is not regulated under the A-P Act. Depending on available site-specific and regional data such as proximity to other active faults, average recurrence, variability in recurrence, the timing of the most recent surface rupturing earthquake, and case studies from other surface rupturing earthquakes, the project geologist may, but is not required to, recommend setbacks. Engineered solutions can also be considered by a licensed engineer operating within his or her field of practice.
- 3) Age-undetermined faults: Faults where the recency of fault movement has not been determined. Faults can be “age-undetermined” if the fault in question has simply not been studied in order to determine its recency of movement. Faults can also be age-undetermined due to limitations in the ability to constrain the timing of the recency of faulting. Examples of such faults are instances where datable materials are not present in the geologic record, or where evidence of recency of movement does not exist due to stripping (either by natural or anthropogenic processes) of Holocene-age deposits. Within the framework of the A-P Act, age-undetermined faults within regulatory Earthquake Fault Zones are considered Holocene-active until proved otherwise.

### 1. Pre-Quaternary Faults

There are numerous Pre-Quaternary (older than 2.58 Ma) faults near the study area. These faults are recognized as having no Quaternary displacement.

#### i. Clovis Fault

The southern extension of the Clovis Fault is approximately 35 miles north of the site. According to the California Geological Survey, the Clovis Fault is a concealed fault trending southeast to northwest along the east side of Clovis, California.

#### ii. Rocky Hill Fault

The Rocky Hill fault is located east of Visalia, Exeter, and Lindsay, California. It is a concealed fault trending northwest to southeast and branches at its southern end near Exeter. The fault is located within Tulare County approximately 15 miles east of the site.

#### iii. Fault Group near Five Points

A series of concealed northeast trending faults are located south of the Five Points area approximately 33 miles northwest of the site.



#### iv. Unnamed Concealed Fault

An unnamed concealed fault is located east of Alpaugh and the northern extension is approximately 26 miles south of the site.

### 2. Quaternary Faults

#### i. Terra Bella, Poso-Pond Creek Fault, and Rag Gulch Faults

There are numerous Quaternary age faults located south of the site near Delano, California and one east of the site in Terra Bella, California. The nearest Quaternary fault in Tulare County is unnamed east of Terra Bella, California, approximately 30 miles southeast of the site. Other faults and faults systems outside the county include the Rag Gulch Group east of Delano approximately 40 miles southeast of the site and the northern extension of the concealed Quaternary Poso-Pond Creek fault located approximately 38 miles south of the site.

### 3. Nearest Holocene-Active Faults

The nearest Holocene-active faults are the Pond fault and Nunez fault. For reference, additional major fault zones further east and west of the site are discussed below.

#### i. Pond Fault

The Pond Fault is a historical fault (along which displacement has occurred within the last 200 years); the northern mapped extension is approximately 40 miles south of the site in Kern County. The fault has been identified as exhibiting fault creep; surface fault rupture resulting from fault movement that breaks the surface slowly.

Smith (1983) identified the fault within Kern County. Evidence of historic fault rupture was discovered by surface evidence by down-dropped roadways, ground cracks and sags, and repeated pipeline ruptures. Subsurface evidence was identified by a groundwater barrier offsetting stratigraphic horizons amounting to nine inches of lateral (apparent vertical) offset. Data suggests the fault may be seismically active but were not conclusive.

No epicenters with magnitudes of 4.0 or larger were discovered in the study area. The Los Angeles Department of Water and Power show six epicenters within six miles of the Pond fault with four within a zone of seismicity centered four miles south of the fault zone identified as the Poso-Pond Creek Fault. It was concluded that the Pond fault may be a broad zone of faults that apparently had a long history of movement (Smith, 1983). The fault met the criteria of “sufficiently active and well-defined” for Alquist-Priolo fault zoning.

#### ii. Nunez Fault

The Nunez fault is an historic fault located approximately 12 miles northwest of Coalinga, California and approximately 60 miles west of the site in Fresno County. Surface rupture occurred along several strands



of this fault in June and July 1983 in association with several earthquakes of magnitude 5.2 to 6.4. The Nunez fault is a relatively minor oblique-slip fault that dips steeply eastward. Surface displacements that occurred in 1983 clearly identify traces that are active and well-defined (Hart, 1984). The fault met the criteria of “sufficiently active and well-defined” for Alquist-Priolo fault zoning.

## **B. Regional Seismic Framework**

### **1. Kern Canyon Fault**

Only one active fault is located within Tulare County. The Kern Canyon fault is a Holocene fault located approximately 55 miles southeast of the site. The Kern Canyon fault runs along the length of Kern Canyon in the southern Sierra Nevada Mountains approximately 55 miles east-southeast of the site. A large portion of the fault runs through the eastern portion of the County. Although the 93-mile-long fault has been considered inactive since the 1930s, recent investigations reveal that the fault has ruptured within the past few thousand years. This discovery, paired with an abundance of low magnitude earthquakes along the fault, indicates that the fault is active. The Kern Canyon fault is shown as an active fault on the California Geological Survey’s 2010 Fault Activity Map of California (OES, 2018) and on Figure 4.

### **2. San Andreas Fault**

San Andreas fault is the longest and most significant fault zone in California. Because of considerable historic earthquake activity, this fault has been designated as active by the State. The large fault collectively accommodates the majority of relative north-south motion between the North American and Pacific plates. The San Andreas Fault is a strike-slip fault approximately 684 miles long and is located approximately 40 miles west of the Tulare County boundary. The zone originates at the triple divide off Fort Bragg in the north and terminates near the Salton Sea in the south. It is located within multiple metropolitan areas. Major earthquakes occurred on the San Andreas Fault in 1857 (Tejon Earthquake, M7.9) and in 1906 (Great San Francisco Earthquake, M 7.8) (OES, 2018).

### **3. Owens Valley Fault Zone**

The Owens Valley fault zone is located on the eastern base of the Sierra Nevada Mountain Range and is a complex system containing both active and potentially active faults. The right-lateral fault system passes through Lone Pine near the eastern base of the Alabama Hills and follows the floor of Owens Valley northward to the Poverty Hills where it steps three kilometers to the left and continues northwest across Crater Mountain and through Big Pine.

It is subparallel to range front faults at the eastern base of the Sierra Nevada Mountains. The Owens Valley fault zone apparently has experienced three major Holocene earthquakes (Beanland and Clark, 1982).

The zone is located within Tulare and Inyo Counties and has historically been the source of seismic activity within the County. The Owens Valley fault is the primary active fault within the zone and has a fault length of 107 kilometers (approximately 75 miles). The last major rupture was approximately M 7.4 and occurred in 1872 (OES, 2018).



#### 4. Historic Earthquakes in Tulare County

The constant motion of the crustal plates causes stress in the brittle upper crust of the earth. These tectonic stresses build up as the rocks are gradually deformed. This rock deformation, or strain, is stored in the rocks as elastic strain energy. When the strength of the rock is exceeded, rupture occurs along a fault. The rocks on opposite sides of the fault slide past each other as the rocks spring back to a relaxed position. The strain energy is released partly as heat and partly as elastic waves called seismic waves. The propagation of these seismic waves produces the ground shaking of an earthquake (CGS, Note 31).

The California Geological Survey Historic Earthquake Online Database shows only two historic earthquakes within Tulare County. A magnitude 5.0 earthquake occurred on May 29, 1915 near Porterville, California and a magnitude 5.7 earthquake occurred on June 30, 1926 near the south central portion of the county near the Kern Canyon Fault along the boundary of Kern County and Tulare County (OES, 2018).

Two historic earthquakes have occurred within close proximity to Tulare County between 1956 and 2016. A magnitude 5.7 occurred in eastern Kern County on July 11, 1992 and a magnitude 5.6 occurred near Ridgecrest-China Lake on September 20, 1995 (OES, 2018).

#### C. Seismic Hazard Assessment

The strength of an earthquake's ground movement can be measured by peak ground acceleration (PGA). PGA measures the rate in change of motion relative to the established rate of acceleration due to gravity ( $g$ ) ( $g = 9.80$  meters (3.2152 feet) per second, per second). PGA is used to project the risk of damage from future earthquakes by showing earthquake ground motions that have a specified probability (e.g., 10%, 5%, or 2%) of being exceeded in 50 years. The ground motion values are used for reference in construction design for earthquake resistance and can also be used to assess the relative hazard between sites when making economic and safety decisions (OES, 2018).

The U.S. Geological Survey (USGS) National Seismic Hazard Maps display earthquake ground motions for various probability levels across the U.S. The maps incorporate findings on earthquake ground shaking, faults, and seismicity and are currently applied in seismic provisions of building codes, insurance rate structures, risk assessments, and other public policy. PGA data from these maps have been used to determine the areas within the County that are at risk for earthquake hazards. The Tulare County Office of Environmental Services (OES) presented PGA values in the County for the 2% probability of exceedance in 50 years. Moderate-earthquake hazard areas are defined as ground accelerations of 0.65g, 0.75g, and 0.85g, and high-earthquake hazard areas are defined as ground accelerations of 0.95g and 1.05g.

As defined in ASCE 7-10, the maximum considered earthquake geometric mean ( $MCE_g$ ) peak ground acceleration adjusted for site effects ( $PGA_M$ ) is used for evaluation of liquefaction, lateral spreading, seismic settlements, and other soil related issues. A design ground motion from the USGS U.S. Seismic Design Maps (Beta Version) was used to calculate the  $PGA_M$ . Default parameters were Site Class D and Risk category I, II, or III. The reference document used to calculate the  $PGA_M$  value was the 2015 NEHRP Provisions that have adopted by reference the American Structural Engineers Association (ASCE)/Structural Engineering Institute (SEI) standard *ASCE/SEI 7-10: Minimum Design Loads for New Buildings and Other Structures* as the baseline. Using a site latitude of 36.294 and longitude of -119.398,



the mapped PGA for the site is 0.260g and the  $PGA_M$  is 0.349g.

Based on analysis by Tulare County OES and calculated  $PGA_M$  for the site, the area falls within the low to moderate range of the ground acceleration scale. Regions at the upper end of the scale are often near major active faults. These regions will, on average, experience stronger earthquake shaking more frequently, with intense shaking that can damage even strong, modern buildings. Thus, based on historical activity and the PGA values, all areas in the County are likely to experience low to moderate shaking from earthquakes, and may experience higher levels if an earthquake were to occur in or near the County.

Figure 5 is an earthquake shaking potential map that shows the site and relative intensity (in percent) of ground shaking in California from anticipated future earthquakes. The shaking potential is calculated as the level of ground motion that has a 2% chance of being exceeded in 50 years, which is the same as the level of ground-shaking with about a 2500-year average repeat time (CGS, 2016).

#### D. Landslides

The USGS defines a landslide as the downslope movement of soil, rock, and organic materials under the effects of gravity and also the landform that results from such movement (Highland and Bobrowsky, 2008). The geology of a site figures into the occurrence of landslides. Landslides can occur anywhere in the world and on slopes as gentle as 1 to 2 degrees. Landslides can occur by three major triggering mechanisms; water, seismic activity, and volcanic activity. Slope saturation by water is the primary cause of landslides. Earthquakes and seismic activity can also trigger slope movements in mountainous areas.

The site is located on relatively flat terrain at 0.1% slope and approximately 15 miles from the nearest hilly terrain to the west at the base of the Sierra Nevada Mountain Range. Seismic shaking in the Visalia area is low to moderate. There is no currently active volcanism in Tulare County. The CGS Information Warehouse Landslide Inventory Map indicates the nearest known landslides are within approximately 65 miles east and 110 miles west of the site.

#### E. Liquefaction

Liquefaction is a failure mechanism caused by rearrangement of water-saturated, well sorted fine grained soils caused by vibrations from earthquakes or other dynamic sources. According to USGS (<https://geomaps.wr.usgs.gov/sfgeo/liquefaction/aboutliq.html>), loose sand and silt that is saturated with water can behave like a liquid when shaken by an earthquake. Earthquake waves cause water pressures to increase in the sediment and the sand grains to lose contact with each other, leading the sediment to lose strength and behave like a liquid. The soil can lose its ability to support structures, flow down even very gentle slopes, and erupt to the ground surface to form sand boils. Many of these phenomena are accompanied by settlement of the ground surface; usually in uneven patterns that damage buildings, roads and pipelines (USGS, 2006).

Three factors are required for liquefaction to occur.

1. Loose, granular sediment: Typically "made" land and beach and stream deposits that are young enough (late Holocene) to be loose.
2. Saturation of the sediment by ground water (water fills the spaces between sand and silt grains).



3. Strong shaking: For example, all parts of the San Francisco Bay region have the potential to be shaken hard enough for susceptible sediment to liquefy.

Typical effects of liquefaction include the following:

- A. Loss of bearing strength: The ground can liquefy and lose its ability to support structures.
- B. Lateral spreading: The ground can slide down very gentle slopes or toward stream banks riding on a buried liquefied layer.
- C. Sand boils: Sand-laden water can be ejected from a buried liquefied layer and erupt at the surface to form sand volcanoes; the surrounding ground often fractures and settles.
- D. Flow failures: Earth moves down steep slopes with large displacement and much internal disruption of material.
- E. Ground oscillation: The surface layer, riding on a buried liquefied layer, is thrown back and forth by the shaking and can be severely deformed.
- F. Flotation: Light structures that are buried in the ground (like pipelines, sewers and nearly empty fuel tanks) can float to the surface when they are surrounded by liquefied soil.
- G. Settlement: When liquefied ground re-consolidates following an earthquake, the ground surface may settle or subside as shaking decreases and the underlying liquefied soil becomes denser.

The process of zonation for liquefaction combines Quaternary geologic mapping, historical ground-water information and subsurface geotechnical data. The liquefaction hazard Zone of Required Investigation boundaries are based on the presence of shallow (< 40 feet depth) historic groundwater in uncompacted sands and silts deposited during the last 15,000 years and sufficiently strong levels of earthquake shaking expected during the next 50 years (Fact Sheet, 2018).

Review of well completion reports from water wells dug near the site indicates there are layers of sands throughout the area ranging from a few feet to more than 20 feet thick to 320 feet below ground surface; the maximum depth reviewed. Groundwater is estimated to be approximately 150 feet below ground surface (as discussed in Section V below) at the site and saturated soils within approximately 150-feet from ground surface are not expected to be encountered. Moreover, the CGS Earthquake Zones of Required Investigation webpage does not show any liquefaction zones within Tulare County.

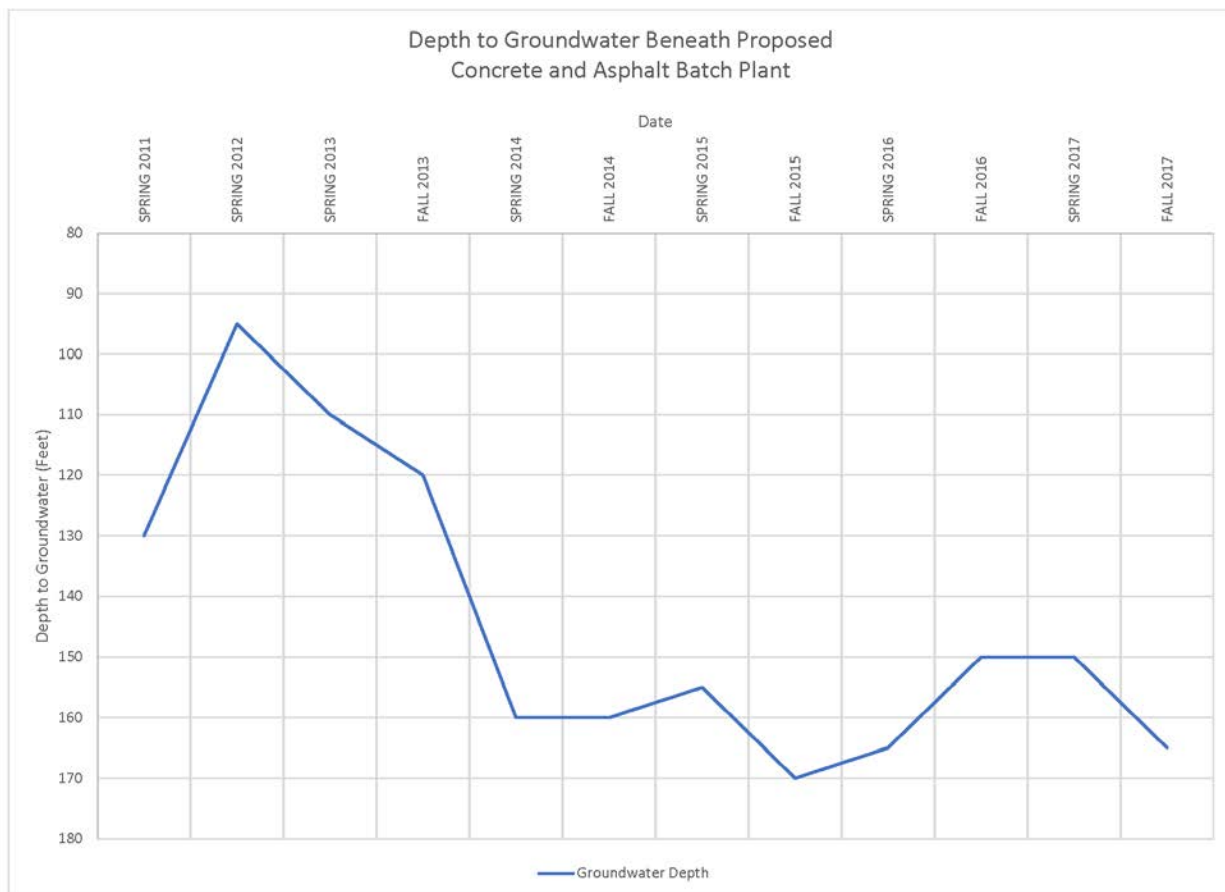


## V. HYDROGEOLOGY

### A. Depth to Groundwater

On September 21, 2018, depth to groundwater was assessed in the three onsite wells using a Solinst Model 101 150-foot water level meter. Depth to groundwater was measured at 127.36 feet below the top of the well casing in the older unused northeast ag well. The new ag well was not accessible. The domestic well was sounded but groundwater was deeper than 150-feet; the maximum length of the water level meter line.

The Department of Water Resources (DWR) Groundwater Information Center Interactive Map Application (GICIMA) was reviewed for site specific depth to groundwater. Groundwater contours around the site from Spring 2011 through Spring 2017 were analyzed for depth to groundwater beneath the site. Figure 6 below shows the depth to groundwater beneath the site since 2011.



**Figure 6. Depth to Groundwater Beneath the Site – Spring 2011 through Spring 2017**

### B. Anticipated Highest Groundwater

Based on Figure 6, the anticipated highest groundwater is approximately 95 feet below ground surface.



Site specific soil data can be used to assess the anticipated depth to groundwater by looking at textural features such as mottling and redox conditions. However, site specific subsurface soils other than NRCS data were not available for review.

### C. Groundwater Flow Direction

Groundwater surface can be contoured from three or more data points using relative elevations based on a temporary benchmark or mean sea level. Semi-annual groundwater elevation data from DWR GICIMA during Spring 2011 through Fall 2017 were evaluated to assess regional groundwater flow direction. Groundwater surface contours from the DWR indicate groundwater flows primarily to the south and southwest from Spring 2011 through Fall 2017 measurements.

### D. Groundwater Quality

Groundwater from site groundwater wells was not analyzed. There is one domestic water well on site within the fenced area connected to an above ground water storage tank. There are two agricultural water wells on the site located near the northeast corner of the site (Figure 2). The northernmost well is an older well and is not in use. A newer, approximately three year old well, is also located near the northeast corner of the site 160 feet south of the older agricultural well.

Data from the Geotracker Groundwater Ambient Program (GAMA) website were downloaded for review. Specifically, groundwater quality parameters of Nitrate as NO<sub>3</sub>, Nitrate as Nitrogen, and Specific Conductance were reviewed for available groundwater beneath the site from nearby monitored wells.

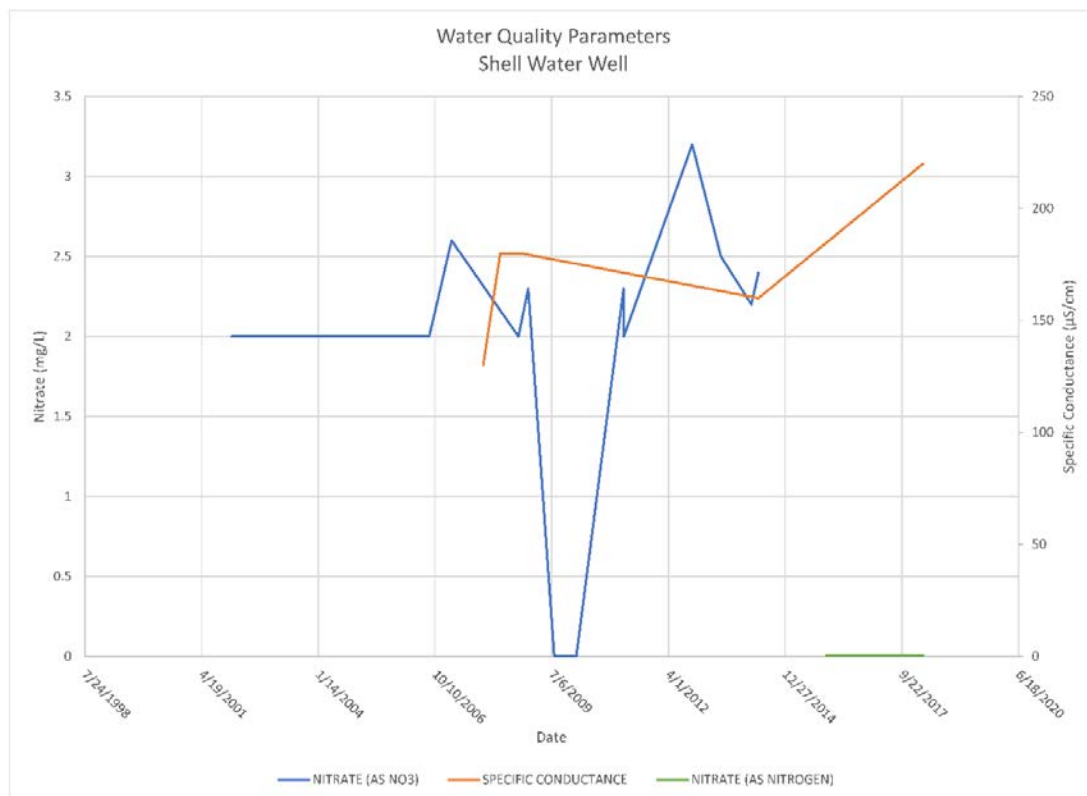
Water quality parameters Nitrate as NO<sub>3</sub>, Nitrate as Nitrogen, and Specific Conductance were evaluated from two Public Water Well System Wells near the site. One well is located at the Shell gasoline station approximately 0.8 mile upgradient and east of the site and the second well is located at Sycamore Academy 1.15 miles west and downgradient of the site. Table 1 shows the sample dates and analytical results for the Shell Water Well. A graph of water quality parameter for the Shell Water Well is presented below in Figure 7.

**Table 1. Groundwater Quality Parameters for the Shell Water Well located 0.8 miles east of the site.**

Date Sampled	Nitrate as NO <sub>3</sub> (mg/L)	Nitrate as Nitrogen (mg/L)	Specific Conductance (μS/cm)
1/2/2002	2	--	--
9/27/2005	2	--	--
8/22/2006	2	--	--
3/1/2007	2.6	--	--
11/27/2007	--	--	130
4/22/2008	--	--	180
9/25/2008	2	--	--
10/14/2008	--	--	180
12/17/2008	2.3	--	--
7/28/2009	0	--	--



Date Sampled	Nitrate as NO <sub>3</sub> (mg/L)	Nitrate as Nitrogen (mg/L)	Specific Conductance (μS/cm)
2/2/2010	0	--	--
3/15/2011	2.3	--	--
3/16/2011	2	--	--
10/23/2012	3.2	--	--
6/25/2013	2.5	--	--
3/13/2014	2.2	--	--
5/13/2014	2.4	--	--
5/13/2014	--	--	160
5/13/2014	--	--	--
2/24/2015	2.5	--	--
12/15/2015	--	0.5	--
1/21/2016	--	0.45	--
1/30/2017	--	0.42	--
1/5/2018	--	0.46	--
3/23/2018	--	--	220
3/23/2018	--	0.57	--



**Figure 7. Water quality with Nitrate as NO<sub>3</sub>, Nitrate as Nitrogen, and Specific Conductance, Shell Water Well.**



The secondary maximum contaminant level (SMCL) for specific conductance (SP) ranges from 900 to 1,600 micro Siemens per centimeter ( $\mu\text{S}/\text{cm}$ ). According to California Code of Regulations, Title 22, Division 4, Chapter 15, Article 16, the SMCL for SP is not to be exceeded in community water systems.

According to United States Environmental Protection Agency National Primary Drinking Water Regulations, the maximum contaminant level (MCL) for Nitrate as Nitrogen is 10 mg/L. The State Water Resources Control Board MCL for Nitrate as  $\text{NO}_3$  is 45 milligrams per liter (mg/L).

The maximum value for Nitrate as  $\text{NO}_3$  was 3.2 mg/L, Nitrate as Nitrogen was 0.57 mg/L, and 220  $\mu\text{S}/\text{cm}$  for specific conductance between the range of dates analyzed from November 2007 and March 2018. The measured parameters do not exceed the regulatory SMCL and MCL.

Table 2 shows the sample dates and analytical results for the Sycamore Academy Water Well.

**Table 2. Groundwater Quality Parameters for the Sycamore Academy Water Well located 1.15 miles west of the site.**

Date Sampled	Nitrate as $\text{NO}_3$ (mg/L)	Specific Conductance ( $\mu\text{S}/\text{cm}$ )
4/22/2004	14	--
4/22/2004	14	--
4/22/2004	--	450
4/22/2004	--	450
3/1/2005	15	--
3/1/2005	15	--
3/14/2006	22	--
3/14/2006	22	--
3/12/2007	21	--
3/12/2007	21	--
3/19/2008	22	--
3/19/2008	22	--
3/19/2008	--	610
3/19/2008	--	610
10/13/2008	--	500
10/13/2008	--	500
5/4/2009	20	--
5/4/2009	20	--
2/1/2010	21	--
2/1/2010	21	--
5/2/2011	25	--
5/2/2011	25	--
5/1/2012	0	--
5/1/2012	0	--



Date Sampled	Nitrate as NO <sub>3</sub> (mg/L)	Specific Conductance (μS/cm)
5/2/2013	15	--
5/2/2013	15	--
8/27/2013	31	--
8/27/2013	31	--
8/27/2013	--	490
8/27/2013	--	490
3/4/2014	32	--
3/4/2014	32	--
3/5/2015	35	--
3/5/2015	35	--
6/3/2015	35	--
6/3/2015	35	--
9/1/2015	35	--
9/1/2015	35	--
3/9/2016	--	520
3/9/2016	--	520

A graph of water quality parameters for the Sycamore Academy Water Well is presented below in Figures 8.

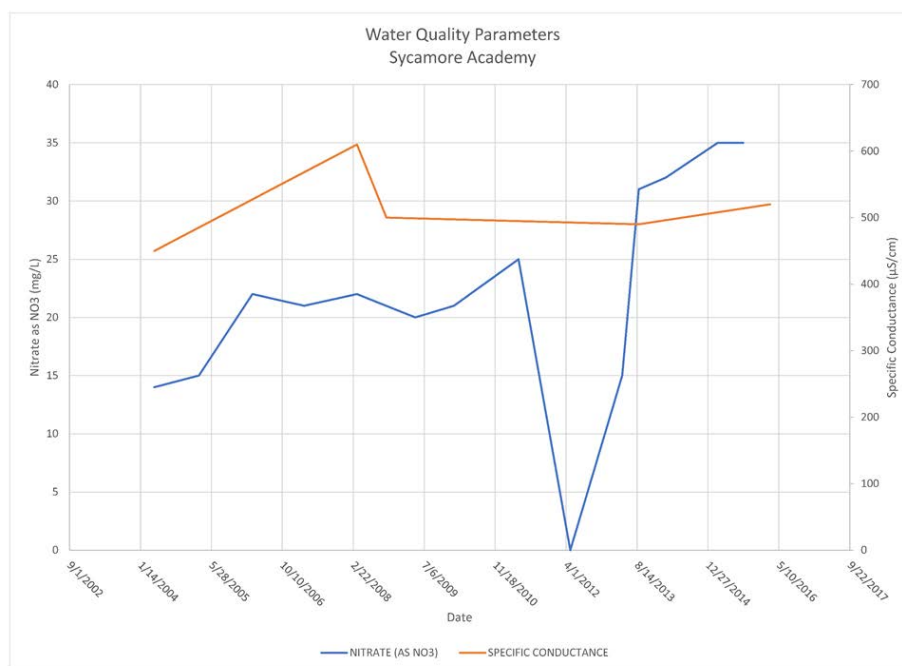


Figure 8. Water quality with Nitrate as NO<sub>3</sub> and Specific Conductance, Sycamore Academy Water Well.



The maximum value for SP in the Sycamore Academy Water Well was 610  $\mu\text{s}/\text{cm}$  between the range of dates analyzed from April 2004 and March 2016. The maximum value for Nitrate as  $\text{NO}_3$  in the Sycamore Academy Water Well was 35 mg/L between the range of dates analyzed from April 2004 and September 2015. There was no Nitrate as Nitrogen data available for the Sycamore Academy Water Well. Water quality parameters did not exceed the SMCL or MCL.



## VI. SUMMARY AND CONCLUSIONS

Based on the geology and soils study for the site, the California Environmental Quality checklist, below, was evaluated for items pertaining to geology and soils impacts with the future development.

### SECTION VI. GEOLOGY AND SOILS

**Would the project:**

**a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

- i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

As indicated on Figure 4, no Alquist-Priolo faults cross through the site. The nearest Holocene Active faults are the Pond fault 40 miles south and Nunez fault 60 miles west of the site. The Kern Canyon fault zone to the east, San Andreas Fault zone to the west, and Owens Valley fault zone to the east are the nearest faults with potential for significant sources of ground movement. However, due to the distance from these zones, site response from movement along the fault zones is estimated to be minimal and less than significant.

- ii. Strong seismic ground shaking?**

The site is not located within areas of strong seismic shaking. The site does not lie within a California Geological Service *Earthquake Zone of Required Investigation*. Further, the peak ground acceleration for the site was calculated as 0.260g, which is considered relatively low. Figure 5 shows a low potential for earthquake shaking, therefore, potential for strong seismic shaking is less than significant.

- iii. Seismic-related ground failure, including liquefaction?**

The site is not located in an area mapped by the California Geological Survey as having liquefaction potential. One of the criteria for liquefaction is saturated soils. Groundwater was measured at 127.36-feet below ground surface, therefore, potential for liquefaction is unlikely and less than significant.

The site is not located within the vicinity of oil and gas production and local ground settlement from oil and gas production is not expected to occur.

- iv. Landslides?**

The site is located on relatively flat terrain at 0.1% slope and approximately 15 miles from the nearest hilly terrain to the west. The CGS Information Warehouse Landslide Inventory Map indicates the nearest known landslides are within approximately 65 miles east and 110 miles west of the site. Based on the



topography of the site, gravity induced movement is unlikely therefore potential for landslides is no impact.

**b) Result in substantial soil erosion or the loss of topsoil?**

The site is located on relatively flat topography and there are no major waterways adjacent to the site. Surface water is utilized and included in part by local and regional drainage for agriculture managed year-round by farming operations. The NRCS soil types at the site indicate the soil is well drained with low to negligible runoff.

The Clean Water Act and associated federal regulations (Title 40 of the Code of Federal Regulations [CFR] 123.25(a)(9), 122.26(a), 122.26(b)(14)(x) and 122.26(b)(15)) require nearly all construction site operators engaged in clearing, grading, and excavating activities that disturb one acre or more, including smaller sites in a larger common plan of development or sale, to obtain coverage under a National Pollutant Discharge Elimination System (NPDES) permit for their stormwater discharges (EPA, 2017). In addition, the California State Water Resources Control Board adopted the new state Construction General Permit, Order Number 2009-0009-DWQ that covers any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or greater than one acre. The General Permit requires a Qualified SWPPP Practitioner to oversee implementation of the BMPs required to comply with the General Permit. (General Permit, 2009).

A Stormwater Pollution Prevention Plan (SWPPP) will be required for the project. The SWPPP will provide best management practices for surface water management and sediment and erosion control. Based on this information, the project is anticipated to have less than significant impacts.

**c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?**

The project is located on the distal end of the Kaweah Alluvial Fan and the surface soils are listed by NRCS as fan remnant soils. The depositional environment of the alluvial and fluvial fan sediments are such that hydrocompaction is not expected to occur; especially since the site has experienced numerous years' worth of wetting and drying cycles by irrigation activities. The project will be located on regionally level topography and is not expected to contribute excessive amounts of water. The project is not expected to mine excessive amounts of groundwater. Therefore, the project is expected to have less than significant impact.

**d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?**

Expansive soils are not known to occur near or around the project site. The nearest region of extensive expansive soils are in the Porterville area. Expansive soils are characteristic of soils with an expansion index greater than 20, such as montmorillonite clay. Soils with an expansion index less than 20 are considered very low. According the NRCS, site soils are characterized as sandy loam and loam. These soils are considered with very low shrink-swell potential, therefore the site soils are not considered expansive and are a less than significant impact.



**e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**

The site contains an existing onsite wastewater treatment system repaired in January 1978. The system contains a concrete lined four foot diameter by 30 foot deep seepage pit located approximately 200 feet from the onsite water well. The septic system was utilized for on-site use. The on-site office is currently vacant and it is unknown how long the septic system has been out of service.

Onsite wastewater systems in the area are served by private septic systems. The City of Visalia Boundary is located on the north side of Avenue 280, north of the site. There are no city sewer or stormwater conveyance structures near the site. Figure 9 shows the City of Visalia sewer and stormwater mains.

On April 5, 2018, the State Water Resources Control Board (SWRCB) approved the Local Agency Management Program (LAMP) for Tulare County. The Central Valley Regional Water Quality Control Board approved Resolution R5-2018-0009 applies to the Local Agency Management Program (LAMP) for the Tulare County Resource Management Agency and Tulare County Environmental Health Division.

The LAMP provides a new regulatory framework for the permitting of On-site Wastewater Treatment Systems (OWTS). The Tulare County Environmental Health Services Division (TCEHSD) prepared a document to advise local OWTS designers and other stakeholders of some of the major changes in the LAMP as follows (Tulare County, 2018).

The SWRCB adopted the final version of the Water Quality Control Policy for Siting, Design, Operation and Maintenance of OWTS in May 2013. Pursuant to Water Code Section 13291 (b)(3), the adopted policy describes requirements authorizing a qualified local agency to implement the adopted policy. The LAMP policies are developed by the local agencies based on local conditions. Approval of Tulare County's LAMP by the SWRCB allows the LAMP to become the standard by which the County will regulate OWTS. This approach allows for greater flexibility at the local level, rather than a "one size fits all" approach outlined by the State.

The LAMP covers the installation of new & replacement OWTS, as well as repair systems for existing OWTS. The LAMP is not intended to cover OWTS that have the following characteristics.

- Existing OWTS that are functioning normally.
- Proposed OWTS that will have design waste flow of greater than 3,500 gallons per day.
- OWTS with anticipated high amounts of fats, oils & grease (FOG), or OWTS with anticipated high values for Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS).
- OWTS that will require nitrogen reduction to mitigate certain limiting conditions.
- OWTS with supplemental treatment systems

When the above listed special conditions apply to a proposed/replacement OWTS, the application for the OWTS may be referred to the SWRCB for review and/or permitting.

The current operational function of the OWTS is unknown. If the current system is functioning normally and does not meet any of the other four characteristics outlined in bullet points above, it will not be



required to fall under the conditions of the Tulare County LAMP and should be allowed for use on conditions that it is fully functional and can handle design flows for proposed operations. If the on-site OWTS is not fully functional and meets any of the other four characteristics outlined in bullet points above, the system will not be covered by the Tulare County LAMP and will be referred to the SWRCB for review and/or permitting.

If a new, replacement, or repair of the existing system is proposed or required for the site, the design and construction will fall under the Tulare County LAMP regulatory standards for the installation of new & replacement OWTS, as well as repair systems for the existing OWTS.



Changes to horizontal setbacks for OWTS installations are amended as follows on Table 3.

**Table 3. Minimum Required Setback Distances for OWTS**

Site Feature	Septic Tank	Dispersal Field	Seepage Pit
Non-Public Water Supply Wells and Springs	100 feet	100 feet <sup>1</sup>	150 feet <sup>1</sup>
Public Water Supply Wells and Springs	100 feet <sup>3</sup>	150 feet <sup>1, 2, 3, 10</sup>	150 feet <sup>1, 2, 3, 10</sup>
Property line adjoining private property (with domestic well)	25 feet	50 feet	75 feet
Property line adjoining private property (with municipal water)	5 feet	5 feet	75 feet
Watercourses: -General	100 feet <sup>2, 10</sup>	100 feet <sup>2, 10</sup>	150 feet <sup>2, 10</sup>
-Between 1,200 to 2,500 feet from a Public Water System intake	100 feet 100 feet	200 feet 400 feet	200 feet 400 feet
Drainage way/swale, ephemeral streams, creeks, unlined irrigation ditch or canal, and other flowing or surface bodies of water	100 feet <sup>4</sup>	100 feet <sup>4</sup>	150 feet <sup>4</sup>
Lakes, ponds, stormwater/recharge basins, and other	100 feet	200 feet	200 feet
Lined ditches, lined canals, lined watertight culverts	15 feet	15 feet	15 feet
Residential on-site stormwater basins	15 feet	15 feet	15 feet
Seepage Pits <sup>4</sup>	5 feet	5 feet	12 feet
Dispersal field <sup>4</sup>	5 feet	4 feet <sup>6</sup>	5 feet
Cuts or steep embankments (from top of cut)	10 feet	4xh <sup>7, 8</sup>	4xh <sup>7, 8</sup>
Steep slopes (from break of slope)	10 feet	4xh <sup>7, 8</sup>	4xh <sup>7, 8</sup>
Unstable Land Mass <sup>9</sup>	100 feet	100 feet	100 feet

1. Drainage piping shall clear domestic water supply wells by not less than 50 feet. This distance shall be permitted to be reduced to not less than 25 feet where the drainage piping is constructed of materials approved for use within a building.
2. Where the effluent dispersal system is within 1,200 feet from a public water systems' surface water intake point, within the catchment of the drainage, and located such that it may impact water quality at the intake point such as upstream of the intake point for flowing water bodies, the dispersal system shall be no less than 400 feet from the high-water mark of the reservoir, lake or flowing water body. Where the effluent dispersal system is located more than 1,200 but less than 2,500 feet from a public water systems' surface water intake point, the dispersal system shall be no less than 200 feet from the high-water mark of the reservoir, lake, or flowing water body.
3. The horizontal separation distances are generally considered adequate where a significant layer of unsaturated, unconsolidated sediment less permeable than sand is encountered between ground surface and groundwater. These distances are based on present knowledge and past experience. Local conditions may require greater separation distances to ensure groundwater quality protection.
4. These minimum clear horizontal distances shall also apply between dispersal fields, seepage pits, and the mean high-tide line.
5. Where dispersal fields, seepage pits, or both are installed on sloping ground, the minimum horizontal distance between any part of the leaching system and ground surface shall be 15 feet.
6. Plus 2 feet for each additional 1 foot of depth in excess of 1 foot below the bottom of the drain line.
7. h equals the height of the cut or embankment, in feet. The required setback distance shall not be less than 25 feet nor more than 100 feet.
8. Steep slope is considered to be land with a slope of >30% and distinctly steeper (at least 20% steeper) than the slope of the adjacent tank or dispersal field area.
9. Unstable land mass or any areas subject to earth slides identified by a registered engineer or registered geologist; other setback distance are allowed, if recommended by a geotechnical report prepared by a qualified professional.
10. Where the dispersal system is greater than 20' in depth, and less than 600' from public water supply well, then the setback must be greater than the distance for two-year travel time of microbiological contaminants, as determined by qualified professional. In no case, shall the setback be less than 200'.



Both TCEHSD and the Resource Management Agency (RMA) will continue to have similar roles in the OWTS process. TCEHSD will review OWTS design proposals and the RMA will be responsible for permit issuance and inspection.

The key difference is that a design report will now be required for all new proposed OWTS. In addition to the design report, a 'Test Hole Permit Application' & Site Evaluation Report must be submitted at the beginning of the permit process.

The Test Hole Permit Application will require two test pit analyses; one in the primary leach field area and the other in the replacement area. Test holes must be dug to a depth of at least five (5) feet deeper than proposed trench bottom depths. For seepage pits, test holes must be dug to a minimum depth of ten (10) feet deeper than the proposed pit bottom.

Where the maximum soil application rate cannot be initially determined from the soil boring/test hole analysis, percolation testing will be required, to justify an application rate for a proposed OWTS design. The average value of all percolation test results shall not exceed 200 Minutes per Inch (MPI). No single test result shall exceed 240 MPI. A minimum of 3 percolation test holes must be explored when the primary & replacement areas are near each other; 6 test holes are required when they are not.

All design reports must include a copy of recorded measurements & time intervals. Design reports that do not incorporate the County approved test form must provide equivalent percolation test information.

In addition, the following methodology must be utilized:

- Percolation test holes shall be 6 inches in diameter. Larger diameter holes may be accepted if the appropriate correction factor & gravel packing are used.
- Unless approval is obtained from the RMA, the test hole bottom depth shall be deeper than the proposed system bottom depth.
- Seepage pits – unless otherwise indicated by the RMA, there shall be a percolation test performed on every seepage pit proposed.
- Presoak requirement – test holes shall be filled with water to a minimum depth of 12 inches above the base of the hole. The presoak shall be maintained for a minimum of 4 hours for sandy soil with no clay and 24 hours for all other soils.
- Percolation tests shall be measured to the nearest 1/8 inch from a fixed point. The test shall begin within 4 hours following completion of the presoak. Adjust the water level to 6 inches (12 inches for seepage pits) over the pea gravel bottom to begin the test.
- Readings shall be taken over 30 minute intervals. Refill as necessary to maintain 6 inches of water over the pea gravel bottom at each interval. Readings shall be taken until 2 consecutive readings do not vary by more than 10 percent per reading, with a minimum of 3 readings. The last 30-minute interval is used to compute the percolation rate.
- If 4 inches or more of water seeps from the hole during the 30 minute interval, readings may be taken at 10 minute intervals. Readings shall be taken until 2 consecutive readings do not vary by more than 10 percent per reading, with a minimum of 3 readings. The last 10-minute interval is used to compute the percolation rate.



Requirements for septic tank design & construction are as follows.

- Risers/manholes are required for both compartments in septic tanks. There will be minimum compartment sizes for tanks. Inlet & outlet pipe sizing has specific requirements.

Changes for the requirements for dispersal field design are as follows.

- Distribution boxes will now be required for a leach field with multiple lines. Leach fields designs that exceed 500 total feet of leach-line will require a dosing tank.

Seepage pit design will only be permitted to serve single-family residences. Use of seepage pits in all other situations will require permitting approval with the Regional Water Quality Control Board (RWQCB). The diameter of pits may be between 3 to 5 feet in width. The minimum sidewall amount below the inlet shall be 10 feet.

Requirements for the format for a septic design report have changed and are included in the guidance document for the required elements in a septic design report. Changes to the processing and review fees for design reports will include a fee schedule to address the changes.

Septic design reports must be submitted by 'Qualified Professionals' that are those persons with the following credentials/licensure.

- RMA Building Inspectors demonstrating knowledge of OWTS
- California Professional Engineer
- California Engineering Geologist
- California Professional Hydrogeologist
- Registered Environmental Health Specialist (REHS)
- Soil Science of America Certified Soil Scientists

Parcel density will be limited to one system per acre. Land development proposals that will cause an exceedance of this ratio will likely require cumulative impact studies. These studies may include nitrogen-loading analysis and groundwater mounding evaluation.

There is an existing septic tank and seepage pit located at the site. If the system is fully functional and meets the design requirements for the proposed facility, it is anticipated that the proposed project would not require a new OWTS to address the sewage needs of the proposed project.

The installation of a septic tank is regulated and monitored by the TCEHSD and RMA. Upon submission of an application to install a new septic system, TCEHSD requires that the above newly implemented LAMP procedures be followed for an on-site OWTS. According to the site owner, the currently permitted OWTS is functioning and is expected to be utilized for the proposed operations. If the on-site system is fully functional, meets the design requirements for the proposed project, and complies with TCEHSD regulations/permit requirements through design features and Mitigation Measures, Less Than Significant project-specific impacts are expected to occur.



## VII. LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of the responsible party and involved regulatory agencies, unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk and such parties have a duty to determine its adequacy for their intended use, time, and location.

The purpose of this study is to reasonably characterize existing geologic and/or hydrogeologic site conditions. No investigation can be thorough enough to describe all geologic/hydrogeologic conditions of interest at a given site. If conditions have not been identified during the study, such a finding should not therefore be construed as a guarantee of the absence of such conditions at the site, but rather as the result of the services performed within the scope, limitations, and cost of the work performed.

We are unable to report on or accurately predict events that may change the site conditions after the described services are performed, whether occurring naturally or caused by external forces. We assume no responsibility for conditions we were not authorized to evaluate, or conditions not generally recognized as predictable when services were performed. Geologic/hydrogeologic conditions may exist at the site that cannot be identified solely by visual observation. Where subsurface exploratory work is performed, our professional opinions are based in part on interpretation of data from discrete locations that may not represent actual conditions at other locations.

No assessment can eliminate uncertainty. This report was intended to reduce, but not eliminate this uncertainty, recognizing reasonable limits of time and cost. Subsurface variations cannot be known, nor entirely accounted for in spite of exhaustive testing. This report should not be regarded as a guarantee that no further recognized geological/hydrogeological conditions are present on or beneath the site beyond that which could have been detected within the scope of work.

The findings, conclusions, and recommendations rendered in this report are solely professional opinions based on information obtained during the assessment. Changes in existing conditions at the site due to time lapse, natural causes, or operations on adjoining properties may deem the conclusions and recommendations inappropriate. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services.

MGS does not warrant the accuracy of work performed or information supplied by others including any of its subcontractors or any segregated portions of this report. In performing our professional services, we have attempted to apply present engineering and scientific judgment and use a level of effort consistent with the standard of practice measured on the date of work and in the locale of the project site for similar type studies.



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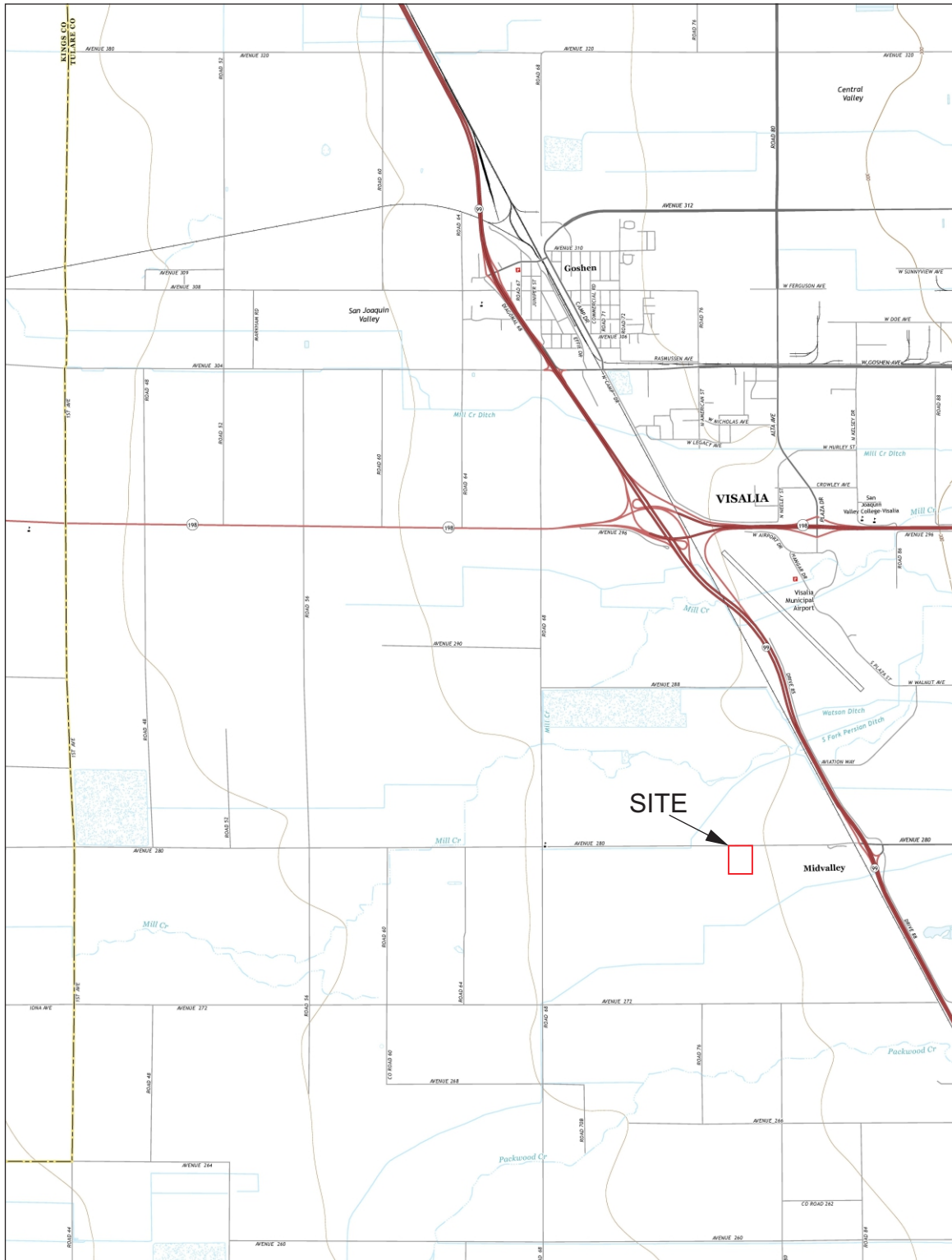
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# FIGURES





CONTOUR INTERVAL = 10 FEET

0' 5,280'  
1 INCH = 1 MILE



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PROJECT:  
**GEOLOGY AND  
SOILS REPORT**

CLIENT:  
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**VICINITY MAP**

REVISION LOG:

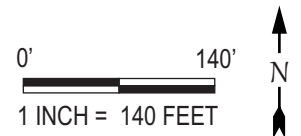
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PROJECT NO: 18021

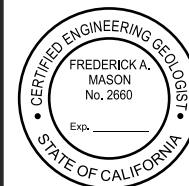
SCALE: AS SHOWN

SHEET NO.: FIGURE 1









PROJECT:

## GEOLOGY AND SOILS REPORT

CLIENT:

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# GEOLOGIC MAP

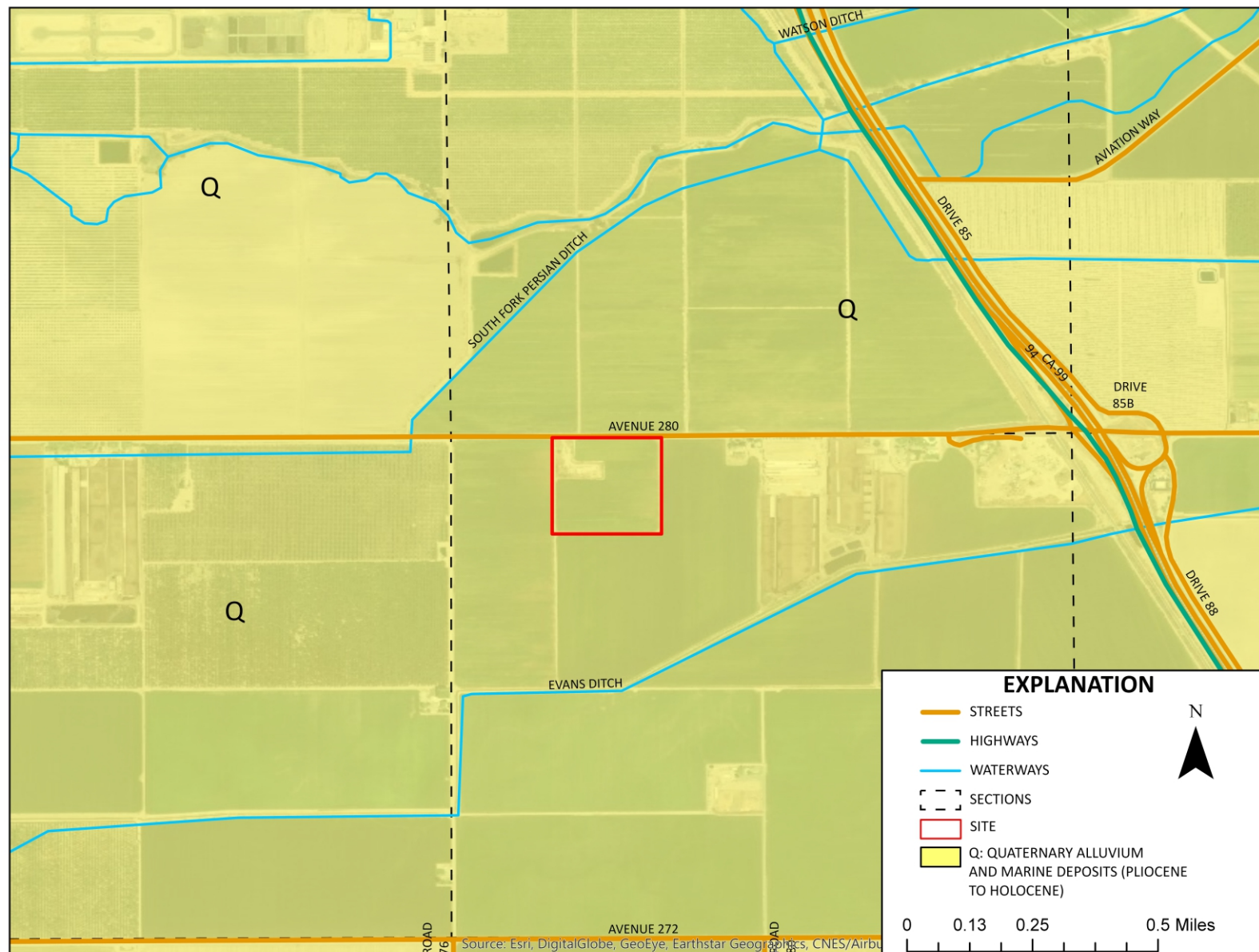
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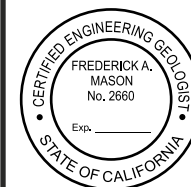
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SCALE: AS SHOWN

SHEET NO.: FIGURE 3







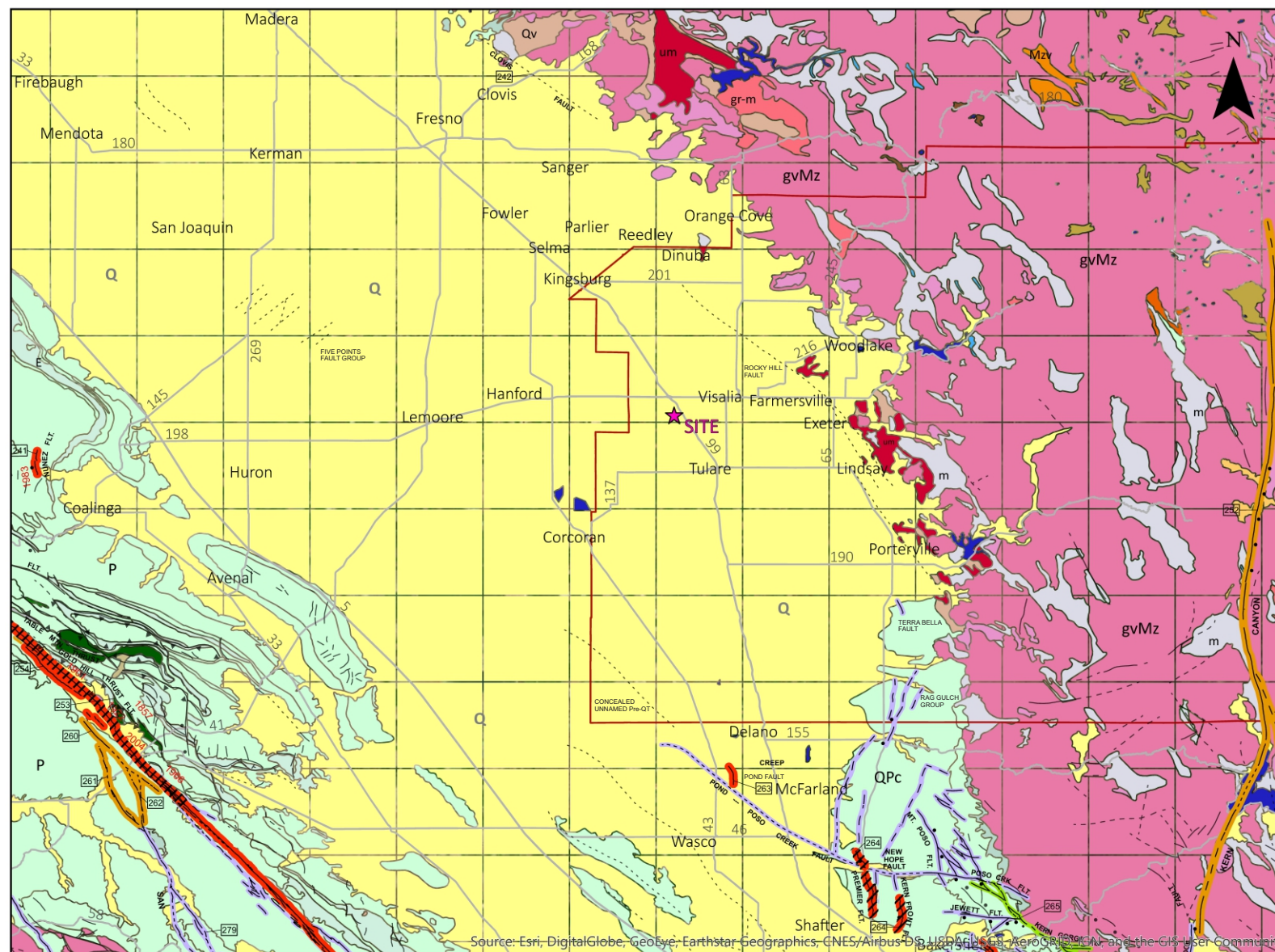
## GEOLOGY AND SOILS REPORT

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# FAULT MAP

REVISION LOG:

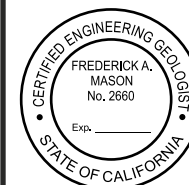
SHEET NO.: FIGURE 4A



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA/USGS, AeroGRID, IGN, and the GIS User Community

0                      12.5                      25                      50 Miles





PROJECT:

## GEOLOGY AND SOILS REPORT

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## FAULT MAP EXPLANATION

REVISION LOG:

PLOT DATE: 08/27/2018

PROJECT NO: 18021

SCALE: AS SHOWN

SHEET NO.: FIGURE 4B

### EXPLANATION

★ SITE

□ COUNTY BOUNDARY

— STATE HIGHWAYS

#### FAULT AGE

■ HISTORIC

■ HOLOCENE

■ LATE QUATERNARY

■ QUATERNARY

/// FAULT CREEP

#### PRE-QUATERNARY FAULTS

— FAULT, CERTAIN

- - - FAULT, APPROX. LOCATED

- - - FAULT, CONCEALED

▲— THRUST FAULT, CERTAIN

- - - THRUST FAULT, APPROX.  
LOCATED

▲—▲ THRUST FAULT, CONCEALED  
FAULT, CERTAIN (BALL AND  
BAR)

●—● FAULT, APPROX. LOCATED  
(BALL AND BAR)

●—● FAULT, CONCEALED (BALL AND  
BAR)

#### QUATERNARY FAULTS

- - FAULT, APPROX. LOCATED

— FAULT, CERTAIN

- - - FAULT, CONCEALED

—▲— THRUST FAULT, CERTAIN

—▲— THRUST FAULT, APPROX.  
LOCATED

▲—▲ THRUST FAULT, CONCEALED

— DEXTRAL FAULT, CERTAIN

- - DEXTRAL FAULT, APPROX.  
LOCATED

- - - DEXTRAL FAULT, CONCEALED

— SINISTRAL FAULT, CERTAIN

- - SINISTRAL FAULT, APPROX.  
LOCATED

- - - SINISTRAL FAULT, CONCEALED

— THRUST FAULT, CERTAIN (2)

- - THRUST FAULT, APPROX.  
LOCATED (2)

—▲— THRUST FAULT, CONCEALED  
(2)

— FAULT, CERTAIN (BALL AND  
BAR)

●—● FAULT, APPROX. LOCATED  
(BALL AND BAR)

●—● FAULT, CONCEALED (BALL AND  
BAR)

— DEXTRAL FAULT, CERTAIN  
(BALL AND BAR)

— FAULT, CERTAIN (DIP)

- - FAULT, APPROX. LOCATED  
(DIP)

- - - FAULT, CONCEALED (DIP)

— REVERSE FAULT, CERTAIN

- - REVERSE FAULT, APPROX.  
LOCATED

- - - REVERSE FAULT, CONCEALED

#### GEOLOGIC ROCK TYPES OF CA

■ E: EOCENE MARINE ROCKS  
(PALEOCENE TO OLIGOCENE)

■ Ec: EOCENE NONMARINE  
ROCKS (EOCENE)

■ Ep: PALEOCENE MARINE  
ROCKS (PALEOCENE)

■ KJf: FRANCISCAN COMPLEX  
(JURASSIC TO CRETACEOUS)

■ KJfm: FRANCISCAN MELANGE  
(JURASSIC TO CRETACEOUS)

■ KI: LOWER CRETACEOUS  
MARINE ROCKS (EARLY  
CRETACEOUS)

■ KU: UPPER CRETACEOUS  
MARINE ROCKS (LATE  
CRETACEOUS)

■ M: MIOCENE MARINE ROCKS  
(OLIGOCENE TO PLIOCENE)

■ Mc: MIOCENE NONMARINE  
ROCKS (OLIGOCENE TO  
PLEISTOCENE)

■ Mzv: MESOZOIC VOLCANIC  
ROCKS (JURASSIC TO  
CRETACEOUS)

■ Mzv: MESOZOIC VOLCANIC  
ROCKS (TRIASSIC TO  
CRETACEOUS)

■ O: OLIGOCENE MARINE  
ROCKS (EOCENE TO MIOCENE)

■ Oc: OLIGOCENE NONMARINE  
ROCKS, (MIDDLE EOCENE TO  
EARLY MIOCENE)

■ P: PLIOCENE MARINE ROCKS  
(MIOCENE TO PLEISTOCENE)

■ Pz: PALEOZOIC MARINE ROCKS  
(LATE PROTEROZOIC(?) TO  
MESOZOIC(?))

■ Q: QUATERNARY ALLUVIUM  
AND MARINE DEPOSITS  
(PLIOCENE TO HOLOCENE)

■ QPc: PLIO-PLEISTOCENE AND  
PLIOCENE LOOSELY  
CONSOLIDATED DEPOSITS  
(MIOCENE TO PLEISTOCENE)

■ Qg: QUATERNARY GLACIAL  
DEPOSITS (PLEISTOCENE)

■ Qls: QUATERNARY LARGE  
LANDSLIDE DEPOSITS  
(QUATERNARY)

■ Qv: QUATERNARY VOLCANIC  
FLOW ROCKS (QUATERNARY)

■ Tc: TERTIARY NONMARINE  
ROCKS (PALEOCENE TO  
PLIOCENE)

■ Tr: TRIASSIC MARINE ROCKS  
(LATE TRIASSIC TO EARLY  
JURASSIC)

■ Tv: TERTIARY VOLCANIC FLOW  
ROCKS (TERTIARY (4-22 MA))

■ Tv: TERTIARY VOLCANIC FLOW  
ROCKS (TERTIARY (3-4 MA))

■ TV: TERTIARY VOLCANIC FLOW  
ROCKS (TERTIARY (14-18 MA))

■ gb: MESOZOIC GABBROIC  
ROCKS (TRIASSIC TO  
CRETACEOUS)

■ gr-m: PRE-CENOZOIC  
GRANITIC AND  
METAMORPHIC ROCKS  
UNDIVIDED (EARLY  
PROTEROZOIC TO LATE  
CRETACEOUS)

■ grMz: MESOZOIC GRANITIC  
ROCKS (EARLY TO LATE  
CRETACEOUS)

■ grMz: MESOZOIC GRANITIC  
ROCKS (PERMIAN TO  
TERTIARY; MOST MESOZOIC)

■ ls: LIMESTONE OF PROBABLE  
PALEOZOIC OR MESOZOIC  
AGE

■ m: PRE-CENOZOIC  
METASEDIMENTARY AND  
METAVOLCANIC ROCKS  
UNDIVIDED (EARLY  
PROTEROZOIC TO  
CRETACEOUS)

■ mv: UNDIVIDED PRE-  
CENOZOIC METAVOLCANIC  
ROCKS (ORDOVICIAN(?) TO  
PERMIAN(?))

■ mv: UNDIVIDED PRE-  
CENOZOIC METAVOLCANIC  
ROCKS (UNDIVIDED)  
(PALEOZOIC(?) TO  
MESOZOIC(?))

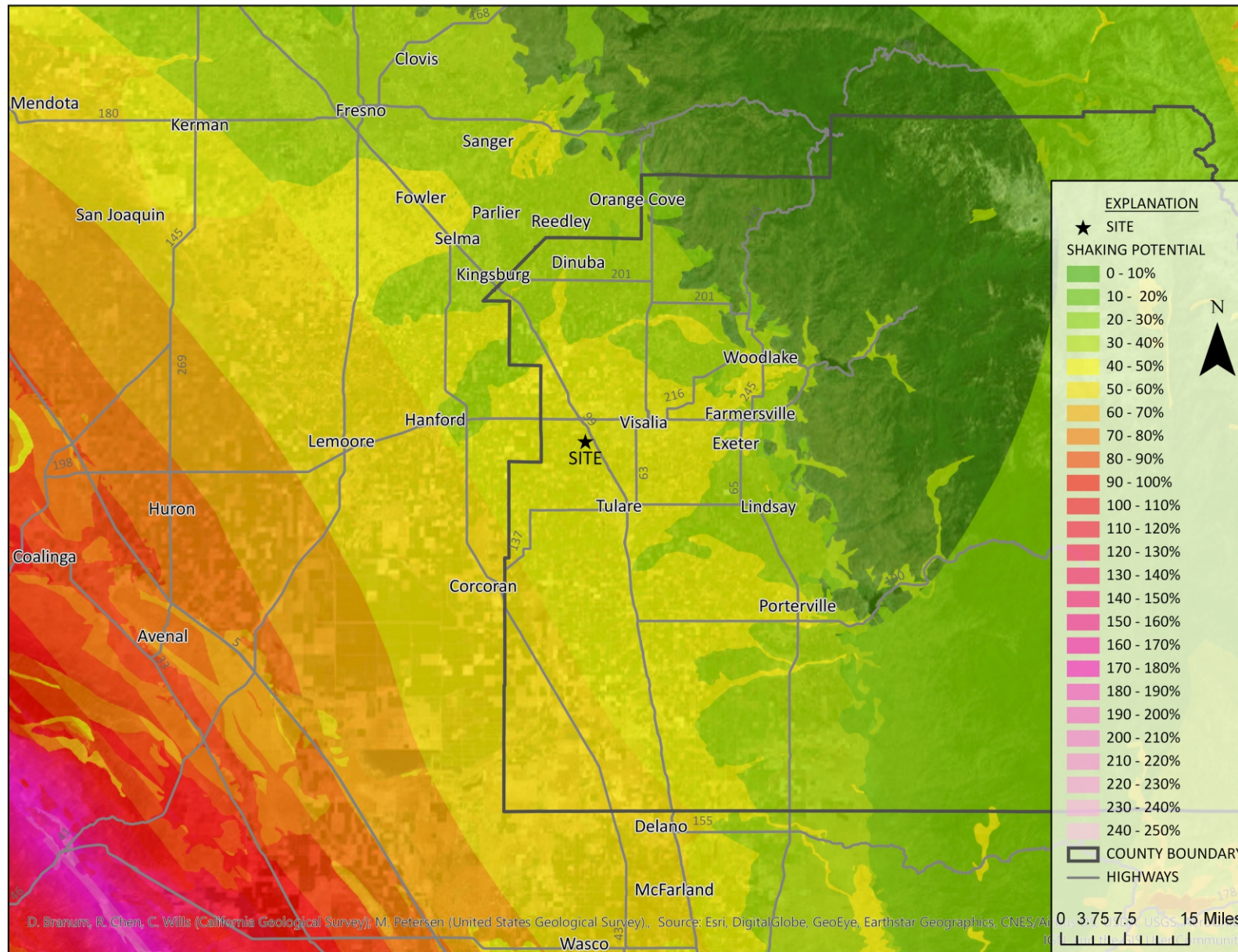
■ um: ULTRAMAFIC ROCKS,  
CHIEFLY MESOZOIC (LATE  
PROTEROZOIC(?) TO EARLY  
JURASSIC)

■ um: ULTRAMAFIC ROCKS,  
CHIEFLY MESOZOIC (MIDDLE  
TO LATE JURASSIC)

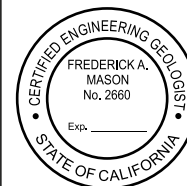
■ um: ULTRAMAFIC ROCKS,  
CHIEFLY MESOZOIC (MIDDLE  
TO LATE JURASSIC)

■ WATER (HOLOCENE)





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PROJECT:

## GEOLOGY AND SOILS REPORT

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## EARTHQUAKE SHAKING POTENTIAL MAP

REVISION LOG:

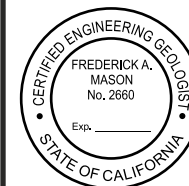
PLOT DATE: 08/27/2018

PROJECT NO: 18021

SCALE: AS SHOWN

SHEET NO.: FIGURE 5





PROJECT:

## GEO/HYDRO OWTS REPORT

CLIENT:

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## SEWER AND STORMWATER MAP

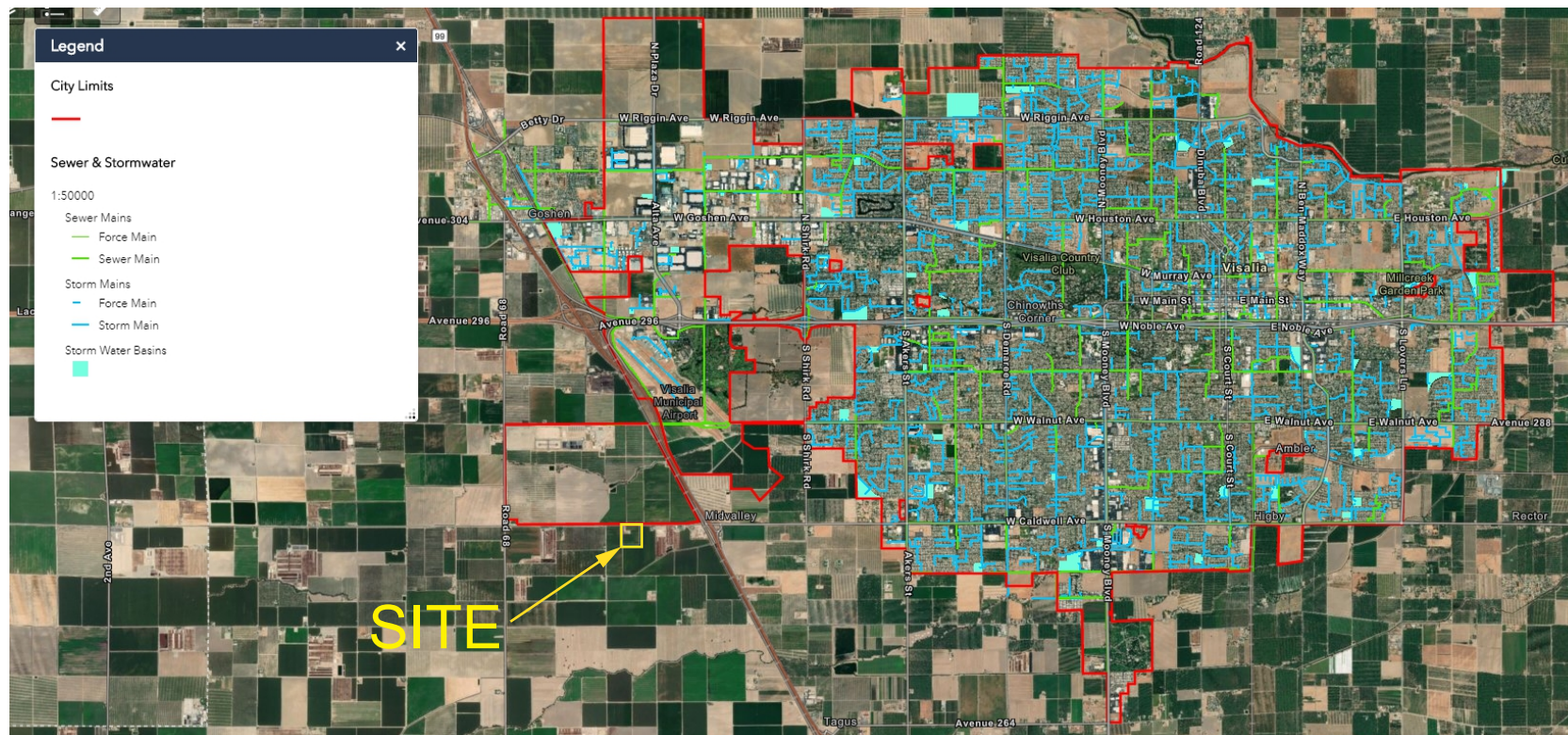
REVISION LOG:

PLOT DATE: 08/05/2018

PROJECT NO: 18021

SCALE: AS SHOWN

SHEET NO.: FIGURE 6





# **APPENDIX A**

## **Natural Resources Conservation Service Custom Soil Resource Report**





United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Tulare County, Western Part, California**

**Dunn's Construction**



August 20, 2018



# Preface

---

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# How Soil Surveys Are Made

---

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units).

Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil



scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and



## Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.



# Soil Map

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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.



# Custom Soil Resource Report Soil Map



Map Scale: 1:6,180 if printed on A landscape (11" x 8.5") sheet.

0 50 100 200 300 Meters


0 300 600 1200 1800 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84




## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)


### Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

### Special Point Features

 Blowout

 Borrow Pit


 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip


 Sodic Spot


 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

### Water Features

 Streams and Canals


### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Tulare County, Western Part, California  
Survey Area Data: Version 11, Sep 8, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 20, 2014—Sep 22, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
101	Akers-Akers, saline-Sodic, complex, 0 to 2 percent slopes	95.9	59.7%
130	Nord fine sandy loam, 0 to 2 percent slopes	46.8	29.2%
137	Tagus loam, 0 to 2 percent slopes	17.9	11.1%
<b>Totals for Area of Interest</b>		<b>160.7</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or



landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.



## Tulare County, Western Part, California

### 101—Akers-Akers, saline-Sodic, complex, 0 to 2 percent slopes

#### Map Unit Setting

*National map unit symbol:* hp6z

*Elevation:* 230 to 350 feet

*Mean annual precipitation:* 8 to 12 inches

*Mean annual air temperature:* 63 to 64 degrees F

*Frost-free period:* 225 to 300 days

*Farmland classification:* Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

#### Map Unit Composition

*Akers and similar soils:* 60 percent

*Akers, saline-sodic, and similar soils:* 25 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Akers

##### Setting

*Landform:* Fan remnants

*Landform position (two-dimensional):* Shoulder

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Alluvium derived from granitic rock sources

##### Typical profile

*Ap - 0 to 16 inches:* fine sandy loam

*Bk - 16 to 60 inches:* fine sandy loam

##### Properties and qualities

*Slope:* 0 to 2 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Well drained

*Runoff class:* Negligible

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* Very rare

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 10 percent

*Gypsum, maximum in profile:* 2 percent

*Salinity, maximum in profile:* Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 12.0

*Available water storage in profile:* High (about 9.7 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 1

*Land capability classification (nonirrigated):* 4c

*Hydrologic Soil Group:* B

*Hydric soil rating:* No



## **Description of Akers, Saline-sodic**

### **Setting**

*Landform:* Fan remnants  
*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium derived from granitic rock sources

### **Typical profile**

*Ap - 0 to 15 inches:* fine sandy loam  
*Bk - 15 to 60 inches:* fine sandy loam

### **Properties and qualities**

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.60 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* Very rare  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 10 percent  
*Gypsum, maximum in profile:* 2 percent  
*Salinity, maximum in profile:* Slightly saline to moderately saline (4.0 to 8.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 30.0  
*Available water storage in profile:* High (about 9.1 inches)

### **Interpretive groups**

*Land capability classification (irrigated):* 2s  
*Land capability classification (nonirrigated):* 4s  
*Hydrologic Soil Group:* C  
*Hydric soil rating:* No

## **Minor Components**

### **Tujunga**

*Percent of map unit:* 3 percent  
*Landform:* Flood plains  
*Hydric soil rating:* No

### **Colpien**

*Percent of map unit:* 3 percent  
*Landform:* Fan remnants  
*Hydric soil rating:* No

### **Yettem**

*Percent of map unit:* 2 percent  
*Landform:* Flood plains, alluvial fans  
*Hydric soil rating:* No

### **Tagus**

*Percent of map unit:* 2 percent  
*Landform:* Fan remnants



*Hydric soil rating:* No

**Grangeville**

*Percent of map unit:* 2 percent

*Landform:* Flood plains, alluvial fans

*Hydric soil rating:* No

**Hanford**

*Percent of map unit:* 2 percent

*Landform:* Flood plains, alluvial fans

*Hydric soil rating:* No

**Unnamed, ponded**

*Percent of map unit:* 1 percent

*Landform:* Depressions

*Hydric soil rating:* Yes

**130—Nord fine sandy loam, 0 to 2 percent slopes**

**Map Unit Setting**

*National map unit symbol:* hp51

*Elevation:* 190 to 520 feet

*Mean annual precipitation:* 8 to 12 inches

*Mean annual air temperature:* 61 to 64 degrees F

*Frost-free period:* 250 to 275 days

*Farmland classification:* Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

**Map Unit Composition**

*Nord and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Nord**

**Setting**

*Landform:* Flood plains, alluvial fans

*Landform position (two-dimensional):* Toeslope, footslope

*Landform position (three-dimensional):* Base slope

*Down-slope shape:* Linear

*Across-slope shape:* Linear, convex

*Parent material:* Alluvium derived from mixed

**Typical profile**

*Ap - 0 to 11 inches:* fine sandy loam

*C1 - 11 to 38 inches:* stratified sandy loam to loam

*C2 - 38 to 50 inches:* stratified loamy coarse sand to coarse sandy loam

*2Btb - 50 to 72 inches:* stratified sandy loam to silt loam

**Properties and qualities**

*Slope:* 0 to 1 percent



## Custom Soil Resource Report

*Depth to restrictive feature:* About 50 inches to abrupt textural change; About 38 inches to abrupt textural change

*Natural drainage class:* Well drained

*Runoff class:* Negligible

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* Very rare

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 4 percent

*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 10.0

*Available water storage in profile:* Low (about 4.9 inches)

### Interpretive groups

*Land capability classification (irrigated):* 1

*Land capability classification (nonirrigated):* 4c

*Hydrologic Soil Group:* B

*Hydric soil rating:* No

### Minor Components

#### Grangeville, saline-sodic

*Percent of map unit:* 3 percent

*Landform:* Flood plains, alluvial fans

*Hydric soil rating:* Yes

#### Hanford

*Percent of map unit:* 3 percent

*Landform:* Flood plains, alluvial fans

*Hydric soil rating:* No

#### Tujunga

*Percent of map unit:* 3 percent

*Landform:* Flood plains

*Hydric soil rating:* No

#### Tagus

*Percent of map unit:* 2 percent

*Landform:* Fan remnants

*Hydric soil rating:* No

#### Akers

*Percent of map unit:* 2 percent

*Landform:* Fan remnants

*Hydric soil rating:* No

#### Colpien

*Percent of map unit:* 2 percent

*Landform:* Fan remnants

*Hydric soil rating:* No



## 137—Tagus loam, 0 to 2 percent slopes

### Map Unit Setting

*National map unit symbol:* hp58

*Elevation:* 230 to 400 feet

*Mean annual precipitation:* 9 to 12 inches

*Mean annual air temperature:* 63 to 64 degrees F

*Frost-free period:* 250 to 300 days

*Farmland classification:* Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

### Map Unit Composition

*Tagus and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Tagus

#### Setting

*Landform:* Fan remnants

*Landform position (two-dimensional):* Shoulder

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Alluvium derived from granitic rock sources

#### Typical profile

*Ap - 0 to 17 inches:* loam

*Bk1 - 17 to 40 inches:* loam

*Bk2 - 40 to 63 inches:* loam

#### Properties and qualities

*Slope:* 0 to 2 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Well drained

*Runoff class:* Low

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.60 to 2.00 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* Very rare

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 10 percent

*Salinity, maximum in profile:* Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

*Sodium adsorption ratio, maximum in profile:* 12.0

*Available water storage in profile:* Moderate (about 8.4 inches)

#### Interpretive groups

*Land capability classification (irrigated):* 1

*Land capability classification (nonirrigated):* 4c



## Custom Soil Resource Report

*Hydrologic Soil Group: B*

*Hydric soil rating: No*

### **Minor Components**

#### **Tujunga**

*Percent of map unit: 5 percent*

*Landform: Flood plains*

*Hydric soil rating: No*

#### **Hanford**

*Percent of map unit: 5 percent*

*Landform: Flood plains, alluvial fans*

*Hydric soil rating: No*

#### **Grangeville**

*Percent of map unit: 3 percent*

*Landform: Flood plains, alluvial fans*

*Hydric soil rating: No*

#### **Colpien**

*Percent of map unit: 2 percent*

*Landform: Fan remnants*

*Hydric soil rating: No*



# **Soil Information for All Uses**

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## **Soil Reports**

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

## **Soil Erosion**

This folder contains a collection of tabular reports that present soil erosion factors and groupings. The reports (tables) include all selected map units and components for each map unit. Soil erosion factors are soil properties and interpretations used in evaluating the soil for potential erosion. Example soil erosion factors can include K factor for the whole soil or on a rock free basis, T factor, wind erodibility group and wind erodibility index.

## **Conservation Planning**

This report provides those soil attributes for the conservation plan for the map units in the selected area. The report includes the map unit symbol, the component name, and the percent of the component in the map unit. It provides the soil description along with the slope, runoff, T Factor, WEI, WEG, Erosion class, Drainage class, Land Capability Classification, and the engineering Hydrologic Group and the erosion factors Kf, the representative percentage of fragments, sand, silt, and clay in the mineral surface horizon. Missing surface data may indicate the presence of an organic surface layer. Further information on these factors can be found in the National Soil Survey Handbook section 618 found at the url [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/ref/?cid=nrcs142p2\\_054223#00](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/ref/?cid=nrcs142p2_054223#00) .



# Custom Soil Resource Report

Soil properties and interpretations for conservation planning. The surface mineral horizon properties are displayed. Organic surface horizons are not displayed.

Conservation Planning—Tulare County, Western Part, California																	
Map symbol and soil name	Pct. of map unit	Slope RV	USLE Slope Length ft.	Runoff	T Factor	WEI	WEG	Erosion	Drainage	NIRR LCC	Hydro logic Group	Surface					
												Depths in.	Kf Factor	Frag-ments RV	Sand RV	Silt RV	Clay RV
101—Akers-Akers, saline-Sodic, complex, 0 to 2 percent slopes																	
Akers	60	1.0	498	Negligible	5	86	3	—	Well drained	4c	B	0 - 16	.28	—	70	16	13
Akers, saline-sodic	25	1.0	498	Negligible	5	86	3	—	Well drained	4s	C	0 - 14	.32	—	70	16	13
130—Nord fine sandy loam, 0 to 2 percent slopes																	
Nord	85	1.0	498	Negligible	5	86	3	—	Well drained	4c	B	0 - 11	.24	—	69	16	14
137—Tagus loam, 0 to 2 percent slopes																	
Tagus	85	1.0	498	Low	5	56	5	—	Well drained	4c	B	0 - 16	.37	—	44	41	14



## Water Features

This folder contains tabular reports that present soil hydrology information. The reports (tables) include all selected map units and components for each map unit. Water Features include ponding frequency, flooding frequency, and depth to water table.

## Hydrologic Soil Group and Surface Runoff

This table gives estimates of various soil water features. The estimates are used in land use planning that involves engineering considerations.

*Hydrologic soil groups* are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

*Surface runoff* refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. The concept indicates relative runoff for very specific conditions. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

## Report—Hydrologic Soil Group and Surface Runoff

Absence of an entry indicates that the data were not estimated. The dash indicates no documented presence.



## Custom Soil Resource Report

Hydrologic Soil Group and Surface Runoff—Tulare County, Western Part, California			
Map symbol and soil name	Pct. of map unit	Surface Runoff	Hydrologic Soil Group
101—Akers-Akers, saline-Sodic, complex, 0 to 2 percent slopes			
Akers	60	Negligible	B
Akers, saline-sodic	25	Negligible	C
130—Nord fine sandy loam, 0 to 2 percent slopes			
Nord	85	Negligible	B
137—Tagus loam, 0 to 2 percent slopes			
Tagus	85	Low	B

## Water Features

This table gives estimates of various soil water features. The estimates are used in land use planning that involves engineering considerations.

*Hydrologic soil groups* are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

*Surface runoff* refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. The concept indicates relative runoff for very specific conditions. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.



## Custom Soil Resource Report

The *months* in the table indicate the portion of the year in which a water table, ponding, and/or flooding is most likely to be a concern.

*Water table* refers to a saturated zone in the soil. The water features table indicates, by month, depth to the top ( *upper limit* ) and base ( *lower limit* ) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table. The kind of water table, apparent or perched, is given if a seasonal high water table exists in the soil. A water table is perched if free water is restricted from moving downward in the soil by a restrictive feature, in most cases a hardpan; there is a dry layer of soil underneath a wet layer. A water table is apparent if free water is present in all horizons from its upper boundary to below 2 meters or to the depth of observation. The water table kind listed is for the first major component in the map unit.

*Ponding* is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. The table indicates *surface water depth* and the *duration* and *frequency* of ponding. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. *None* means that ponding is not probable; *rare* that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); *occasional* that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and *frequent* that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

*Flooding* is the temporary inundation of an area caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

*Duration* and *frequency* are estimated. Duration is expressed as *extremely brief* if 0.1 hour to 4 hours, *very brief* if 4 hours to 2 days, *brief* if 2 to 7 days, *long* if 7 to 30 days, and *very long* if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. *None* means that flooding is not probable; *very rare* that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); *rare* that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); *occasional* that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); *frequent* that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and *very frequent* that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed



## Custom Soil Resource Report

engineering surveys that delineate flood-prone areas at specific flood frequency levels.



# Custom Soil Resource Report

Map unit symbol and soil name	Hydrologic group	Surface runoff	Most likely months	Water table			Ponding			Flooding	
				Upper limit	Lower limit	Kind	Surface depth	Duration	Frequency	Duration	Frequency
				<i>Ft</i>	<i>Ft</i>		<i>Ft</i>				
101—Akers-Akers, saline-Sodic, complex, 0 to 2 percent slopes											
Akers	B	Negligible	Jan-Dec	—	—	—	—	—	None	Brief (2 to 7 days)	Very rare
Akers, saline-sodic	C	Negligible	Jan-Dec	—	—	—	—	—	None	Brief (2 to 7 days)	Very rare
130—Nord fine sandy loam, 0 to 2 percent slopes											
Nord	B	Negligible	Jan-Dec	—	—	—	—	—	None	Brief (2 to 7 days)	Very rare
137—Tagus loam, 0 to 2 percent slopes											
Tagus	B	Low	Jan-Dec	—	—	—	—	—	None	Brief (2 to 7 days)	Very rare



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## **APPENDIX E**

### **HYDROLOGY AND WATER QUALITY REPORT**



# **HYDROLOGY AND WATER QUALITY REPORT FOR PROPOSED CONCRETE AND ASPHALT BATCH PLANT**

**PREPARED FOR:**

**DUNN'S CONSTRUCTION, INC.**

15602 AVENUE 196  
VISALIA, TULARE COUNTY, CALIFORNIA 93292  
APN 119-010-039

**PREPARED BY:**



PO BOX 1020  
EXETER, CA 93221

**SEPTEMBER 27, 2018**

**SUBMITTED TO:**

4CREEKS, INC.  
324 SOUTH SANTA FE STREET, SUITE A  
VISALIA, CALIFORNIA 93292





September 27, 2018

To:

**Mr. Richard Walker**

Senior Planner/Senior Project Manager

4Creeks, Inc.

324 S. Santa Fe Street, Suite A

Visalia, CA 93292

From:

**Fred Mason**

**Professional Geologist**

Mason Geoscience

PO Box 102

Exeter, CA 93221

**SUBJECT: HYDROLOGY AND WATER QUALITY REPORT FOR PROPOSED CONCRETE AND ASPHALT BATCH PLANT, DUNN'S CONSTRUCTION, 7763 AVENUE 280, APN# 119-010-039, VISALIA, TULARE COUNTY, CALIFORNIA.**

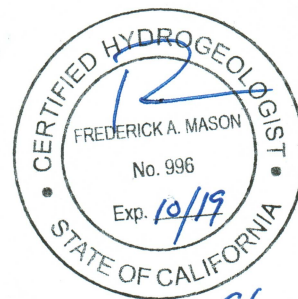
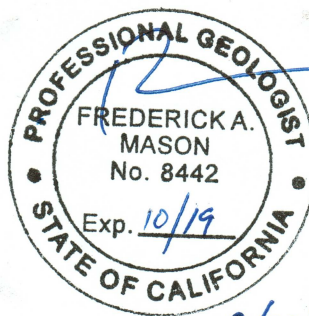
Dear Mr. Walker:

The attached report has been prepared to assess the hydrology and water quality impacts to the site from the proposed project. The report includes discussion of the natural setting of the site and California Environmental Quality Act (CEQA) checklist is included with discussion regarding potential environmental impacts from the proposed project. The environmental impacts with regard to CEQA include thresholds of significance as identified in the CEQA checklist and are discussed herein. If you have any questions or concerns, please contact me at (559) 936-3695.

Respectfully submitted,

---

Fred Mason, PG, CEG, CHG  
Principal Geologist





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FIGURE 2. SITE MAP

FIGURE 3. WATERSHED MAP

FIGURE 4. FEMA FIRM

FIGURE 5. SHELL WATER WELL WATER QUALITY RESULTS

FIGURE 6. SYCAMORE ACADEMY WATER WELL WATER QUALITY RESULTS

FIGURE 7. DEPTH TO GROUNDWATER BENEATH SITE



## I. INTRODUCTION

Dunn's Construction, Inc. is proposing to build a concrete and asphalt batch plant on a 19.98 acre site in Visalia, California (Figures 1 and 2). The site currently contains an approximate 9,000 square foot shop and approximate 900 square foot residence that appears to have been converted to an office. The office septic system is constructed with a dual chamber septic tank that is four feet wide by nine feet long by four feet deep and approximately 1,000 gallon volume. Effluent from the septic tank is leached into a four foot diameter by 30 foot deep concrete lined seepage pit.

Dunn's Construction is proposing a concrete mixing plant, cement powder storage, aggregate storage, and batch operations to produce ready mix concrete. Cement and fly ash will be stored in silos approximately 40 feet tall. The aggregate will be pushed into piles approximately 15 feet tall as trucks bring material in. It is estimated that the project will produce approximately 100,000 cubic yards of concrete per year resulting in approximately 200 loads of concrete going out per week and 110 loads of aggregate and 20 loads of cement coming in per week.

A portable concrete and asphalt recycling plant will be onsite a couple times per year depending on the stockpile of materials available. The project will accept broken concrete and asphalt brought in by contractors to be stockpiled approximately 15 feet high. Once there is enough rubble, a portable crushing plant will take the rubble and mix it into road base. It is estimated that approximately 30,000 tons of base rock will be produced per year resulting in approximately 30 loads of rubble coming in per week and 25 loads of base going out per week, on average.

A proposed hot mix asphalt plant will be similar to the concrete plant except the material will be heated. The aggregate will be brought in and dumped into stockpiles approximately 15 feet high until used in the plant. The asphalt plant will receive oil to be stored in containers and heated with propane. The oil and aggregate will be mixed together and stored in a silo approximately 40 feet tall until shipped out. It is estimated that approximately 125,000 tons will be produced per year resulting in approximately 100 loads of aggregate coming in per week, seven loads of oil coming in per week, five loads of propane coming in per week, and approximately 100 loads of asphalt going out per week.

Site details are as follows:

Current Facility Name:-----Dunn's Construction, Inc.  
Address:-----7763 Avenue 280, Visalia, California  
County:-----Tulare County  
Assessor's Parcel Numbers-----119-010-039  
Township, Range, Section:-----Township 19 South, Range 24 East, Section 8  
Baseline Meridian:-----Mount Diablo Baseline and Meridian  
Owner:-----Mark Dunn  
Dunn's Construction, Inc.  
15602 Ave 196, Visalia, California, 93292  
(559) 734-5373



## A. Purpose and Scope

This report has been prepared to assess potential hydrologic and water quality impacts to the site including information for an on-site wastewater treatment system (OWTS).

The assessment required reviewing hydrologic and water quality information for the site and surrounding area and includes qualitative and quantitative hydrologic data. These data, submitted herein, include discussion of the natural setting of the site. A California Environmental Quality Act (CEQA) checklist is included with discussion regarding potential environmental impacts from the proposed project. The environmental impacts with regard to CEQA include thresholds of significance as identified in the CEQA checklist and relate to the following criteria.

Would the project:

- Violate any water quality standards or waste discharge requirements?
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
- Otherwise substantially degrade water quality?
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?
- Place within a 100-year flood hazard area structures which would impede or redirect flood flows?
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?
- Inundation by seiche, tsunami, or mudflow?

## B. Regulatory Requirements

### 1. California Environmental Quality Act (CEQA) Requirements

This section addresses potential impacts to Hydrology and Water Quality. As required in Section 15126, all phases of the proposed Project will be considered when evaluating its environmental impact.

As noted in 15126.2 (a): An EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area,



as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas.” (CEQA, 2018).

The regulatory setting provides a description of applicable Federal, State and Local regulatory policies that were developed in part from information contained in the Tulare County 2030 General Plan, Tulare County General Plan Background Report and/or Tulare County General Plan Revised DEIR incorporated by reference and summarized below. The hydrologic conditions provides a description of the Hydrology and Water Quality in the County.

## 2. Federal Agencies & Regulations

### i. Clean Water Act/NPDES

The Clean Water Act establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The Federal Water Pollution Control Act of 1948 was the first major U.S. law to address water pollution. Growing public awareness and concern for controlling water pollution led to sweeping amendments in 1972. As amended in 1972, the law became commonly known as the Clean Water Act (CWA). Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry. EPA has also developed national water quality criteria recommendations for pollutants in surface waters.

The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters (CWA, 2018).



## ii. National Flood Insurance Program

The National Flood Insurance Program (NFIP) was created as a result of the passage of the National Flood Insurance Act of 1968. Congress enacted the NFIP primarily in response to the lack of availability of private insurance and continued increases in federal disaster assistance due to floods. At the time, flooding was viewed as an uninsurable risk and coverage was virtually unavailable from private insurance markets following frequent widespread flooding along the Mississippi River in the early 1960s. The NFIP is a Federal program, managed by the Federal Emergency Management Administration (FEMA), and has three components: to provide flood insurance, to improve floodplain management, and to develop maps of flood hazard zones (NAIC, 2018).

## iii. Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and groundwater wells. SDWA does not regulate private wells which serve fewer than 25 individuals. SDWA authorizes the United States Environmental Protection Agency to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. EPA, states, and water systems then work together to make sure that these standards are met (US EPA, 2004).

## iv. Environmental Protection Agency

The mission of EPA is to protect human health and the environment. EPA works to ensure that:

- All Americans are protected from significant risks to human health and the environment where they live, learn, and work;
- National efforts to reduce environmental risk are based on the best available scientific information;
- Federal laws protecting human health and the environment are enforced fairly and effectively;
- Environmental protection is an integral consideration in U.S. policies concerning natural resources, human health, economic growth, energy, transportation, agriculture, industry, and international trade, and these factors are similarly considered in establishing environmental policy;
- All parts of society -- communities, individuals, businesses, and state, local and tribal governments have access to accurate information sufficient to effectively participate in managing human health and environmental risks;
- Environmental protection contributes to making our communities and ecosystems diverse, sustainable and economically productive; and
- The United States plays a leadership role in working with other nations to protect the global environment (US EPA, 2018).



### 3. State Agencies & Regulations

#### i. State Water Quality Control Board

The State Water Resources Control Board was established in 1967 by the Legislature. The Board succeeded to the functions of the former State Water Rights Board and the State Water Quality Control Board. The mission of the State Water Board is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The joint authority of water allocation and water quality protection enables the Water Board to provide comprehensive protection for California's waters (State Water Board, 2018).

#### ii. Regional Water Quality Control Board

The nine California Regional Water Quality Control Boards (Regional Boards) were originally established in the Dickey Water Pollution Control Act of 1949. The mission of the Regional Boards is to develop and enforce water quality objectives and implementation plans that will best protect the State's waters, recognizing local differences in climate, topography, geology and hydrology. Each Regional Board has seven part-time members appointed by the Governor and confirmed by the Senate. Regional Boards develop "basin plans" for their hydrologic areas, issue waste discharge requirements, take enforcement action against violators, and monitor water quality. (State Water Board, 2018).

The primary duty of the Regional Board is to protect the quality of the waters within the Region for all beneficial uses. This duty is implemented by formulating and adopting water quality plans for specific ground or surface water basins and by prescribing and enforcing requirements on all agricultural, domestic and industrial waste discharges (Central Valley Water Board, 2018).

#### iii. The Porter-Cologne Water Quality Control Act

The Porter cologne Water Quality Control Act, also known as the "Water Act" requires water resources of the State be put to beneficial use to the fullest extent of which they are capable. Waste, unreasonable use, or unreasonable method of use of water shall be prevented. Conservation of water is to be exercised with a view to the reasonable and beneficial use in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or watercourse in California shall be limited as shall be reasonably required for the beneficial use to be served. Such right does not and shall not extend to the waste, unreasonable use, or unreasonable method of use or unreasonable method of diversion of water. Together, the ten water boards have primary responsibility for implementing and enforcing the Porter-Cologne Water Quality Control Act (Porter-Cologne Act). Specific responsibilities and procedures of the Regional Boards and the State Water Resources Control Board are contained in the Porter- Cologne Water Quality Control Act. (Water Code, 2018).



#### iv. California Department of Water Resources

The Department of Water Resources (DWR) is responsible for managing and protecting California's water resources. DWR works with other agencies to benefit the State's people and to protect, restore, and enhance the natural and human environments (DWR About, 2018).

DWR's major responsibilities include:

- Overseeing the statewide process of developing and updating the California Water Plan (Bulletin 160 series).
- Planning, designing, constructing, operating, and maintaining the State Water Project.
- Protecting and restoring the Sacramento-San Joaquin Delta.
- Regulating dams, providing flood protection, and assisting in emergency management.
- Working to preserve the natural environment and wildlife.
- Educating the public about the importance of water, water conservation, and water safety.
- Providing grants and technical assistance to service local water needs.
- Collecting, analyzing, and reporting data in support of their mission to manage and protect California's water resources.

#### v. SB 610 (Costa, 2001)

This Bill requires additional information to be included as part of an urban water management plan if groundwater is identified as a source of water available to the supplier. This law also requires an urban water supplier to include in the plan a description of all water supply projects and programs that may be undertaken to meet total projected water use (Costa, 2001).

### 4. Local Policy & Regulations

#### i. Tulare County General Plan Policies

The General Plan (2012) has a number of policies that apply to projects within Tulare County. General Plan policies that relate to the proposed project are listed below.

AG-1.17 Agricultural Water Resources - The County shall seek to protect and enhance surface water and groundwater resources critical to agriculture.

HS-4.4 Contamination Prevention - The County shall review new development proposals to protect soils, air quality, surface water, and groundwater from hazardous materials contamination.

HS-5.2 Development in Floodplain Zones - The County shall regulate development in the 100-year floodplain zones as designated on maps prepared by FEMA in accordance with the following:

- Critical facilities (those facilities which should be open and accessible during emergencies) shall not be permitted.



- Passive recreational activities (those requiring non-intensive development, such as hiking, horseback riding, picnicking) are permissible.
- New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions.

HS-5.4 Multi-Purpose Flood Control Measures - The County shall encourage multipurpose flood control projects that incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the County's streams, creeks, and lakes. Where appropriate, the County shall also encourage the use of flood and/or stormwater retention facilities for use as groundwater recharge facilities.

HS-5.9 Floodplain Development Restrictions - The County shall ensure that riparian areas and drainage areas within 100-year floodplains are free from development that may adversely impact floodway capacity or characteristics of natural/riparian areas or natural groundwater recharge areas.

HS-5.11 Natural Design - The County shall encourage flood control designs that respect natural curves and vegetation of natural waterways while retaining dynamic flow and functional integrity.

WR-2.1 Protect Water Quality - All major land use and development plans shall be evaluated as to their potential to create surface and groundwater contamination hazards from point and non-point sources. The County shall confer with other appropriate agencies, as necessary, to assure adequate water quality review to prevent soil erosion; direct discharge of potentially harmful substances; ground leaching from storage of raw materials, petroleum products, or wastes; floating debris; and runoff from the site.

WR-2.2 National Pollutant Discharge Elimination System (NPDES) Enforcement - The County shall continue to support the State in monitoring and enforcing provisions to control non-point source water pollution contained in the U.S. EPA NPDES program as implemented by the Water Quality Control Board.

WR-2.3 Best Management Practices (BMPs) - The County shall continue to require the use of feasible BMPs and other mitigation measures designed to protect surface water and groundwater from the adverse effects of construction activities, agricultural operations requiring a County Permit and urban runoff in coordination with the Water Quality Control Board.

WR-2.4 Construction Site Sediment Control - The County shall continue to enforce provisions to control erosion and sediment from construction sites.

WR-2.5 Major Drainage Management - The County shall continue to promote protection of each individual drainage basin within the County based on the basins' unique hydrologic and use characteristics.

WR-2.6 Degraded Water Resources - The County shall encourage and support the identification of degraded surface water and groundwater resources and promote restoration where appropriate.

WR-2.8 Point Source Control - The County shall work with the Regional Water Quality Control Board to ensure that all point source pollutants are adequately mitigated (as part of the California Environmental



Quality Act review and project approval process) and monitored to ensure long-term compliance.

WR-3.3 Adequate Water Availability - The County shall review new development proposals to ensure the intensity and timing of growth will be consistent with the availability of adequate water supplies. Projects must submit a Will-Serve letter as part of the application process and provide evidence of adequate and sustainable water availability prior to approval of the tentative map or other urban development entitlement.

WR-3.5 Use of Native and Drought Tolerant Landscaping - The County shall encourage the use of low water consuming, drought-tolerant and native landscaping and emphasize the importance of utilizing water conserving techniques, such as night watering, mulching, and drip irrigation.

WR-3.6 Water Use Efficiency - The County shall support educational programs targeted at reducing water consumption and enhancing groundwater recharge.

WR-3.10 Diversion of Surface Water - Diversions of surface water or runoff from precipitation should be prevented where such diversions may cause a reduction in water available for groundwater recharge.

## ii. Tulare County Environmental Health

The mission of the Tulare County Division of Environmental Health Services (TCDEHS) is to enhance the quality of life in Tulare County through implementation of environmental health programs that protect public health and safety as well as the environment. This goal is accomplished by overseeing and enforcing numerous different programs, from food facility inspections to hazardous waste. All inspectors are licensed and/or certified in the field they practice in and participate in continuing education to maintain licensure (TCDEHS, 2018).



## II. SITE DESCRIPTION

The study area is located within the Kaweah Subbasin of the Tulare Lake Hydrologic Region of the San Joaquin Valley that comprises the southern extent of the Great Central Valley of California. The city of Visalia and site are situated within the farming region of Tulare County. Predominant crops grown around the site include alfalfa, corn, cotton, milo, wheat, walnuts, and almonds.

The site is located near the southwest boundary of the City of Visalia within a predominantly agricultural setting (Figure 1). The current site is unoccupied and comprises approximately 19.98 acres with a shop and former residence converted to an office. The shop and office occupy approximately 2.5 acres within the 19.98 acre parcel. The office and shop are surrounded by locked chain-link fencing. The remaining parcel is farmed in seasonal crops. There is one domestic water well on site within the fenced area connected to an above ground water storage tank. There are two agricultural water wells on the site located near the northeast corner of the site (Figure 2). The northernmost well is an older well and is not in use. A newer, approximately three year old well, is also located near the northeast corner of the site 160 feet south of the older agricultural well.

### A. Site Location and Access

To access the site from the north of Visalia from the intersection of Highway 198 and Highway 99, continue 2.5-miles south to the Avenue 280 (Caldwell Avenue) off-ramp. Go west on Avenue 280 0.8-miles to the site on the south side of Avenue 280. From the south, go approximately 5-miles north from Tulare to the Avenue 280 exit and go west 0.8-miles. The site is on the south side of Avenue 280 (Figure 1).

### B. Proposed Development

The proposed development will include a concrete mixing plant, cement powder storage, aggregate storage, and batch operations to produce ready mix concrete. A proposed hot mix asphalt plant will be onsite that is similar to the concrete plant, except the material will be heated up. An overlay of the proposed project is shown on Figure 2.

### C. Climate

Runoff from the Sierra Nevada mountains to the west provides good quality water for irrigation along with local groundwater. The region around the site experiences a long growing season (April through October), warm to hot summers, and a fall harvest period usually sparse in rain. Winters are moist and often blanketed with tule fog. The valley floor is surrounded on three sides by the Sierra Nevada Mountain Range to the east, the Coast Ranges to the west, and the Tehachapi and Transverse Ranges to the south, resulting in a comparative isolation of the valley from marine effects. Because of this and the comparatively cloudless summers, normal maximum temperature advances to a high of 101 degrees Fahrenheit during the latter part of July. Valley winter temperatures are usually mild, but during infrequent cold spells air temperature occasionally drops below freezing. Heavy frost occurs during the winter in most years, and the geographic orientation of the valley generates prevailing winds from the northwest (Water Plan, 2013).



The mean annual precipitation in the valley portion of the region ranges from about 6 to 11 inches, with 67 percent falling from December through March, and 95 percent falling from October through April. The region receives more than 70 percent of the possible amount of sunshine during all but four months, November through February. In the winter months, tule fog, which can last up to two weeks, reduces sunshine to a minimum (Water Plan, 2013).



### III. HYDROLOGIC CONDITIONS

#### A. Hydrologic Setting

The City of Visalia and subject site are located within the Kaweah Subbasin (5-22.11) of the Tulare Lake Hydrogeologic Region. The site is geologically located within the distal end of coalescing alluvial fans along the east half of the valley. Over time, glaciers and streams have eroded the Sierra Nevada Mountain Range to the east and Coast Ranges to the west, and deposited interfingering alluvial materials of clay, silt, sand, and gravel filling the present-day valley. These deposits have formed vast fluvial fans at the base of the mountain ranges that spread laterally and parallel to the mountain fronts. The major alluvial geomorphic feature is the Kaweah River Fan and the major fan to the north is the Kings River Fan emanating from the Sierra Nevada Mountain Range. On a whole, all of these fans systems have coalesced forming a large heterogenous alluvial plain, upon which the site is located.

The Tulare Lake Hydrologic Region covers approximately 10.9 million acres (17,000 square miles) and includes all of Kings and Tulare counties and most of Fresno and Kern counties. Significant geographic features include the southern half of the San Joaquin Valley, the Temblor Range to the west, the Tehachapi Mountains to the south, the southern Sierra Nevada to the east, and Coast Ranges to the west. Major population centers include Fresno, Bakersfield, and Visalia. The cities of Fresno and Visalia are entirely dependent on groundwater for their supply, with Fresno being the second largest city in the United States reliant solely on groundwater (DWR, 2016).

The Tulare Lake region is one of the nation's leading agricultural production areas, growing a wide variety of crops on about three million irrigated acres. Agricultural production has been a mainstay of the region since the late 1800s. However, since the mid-1980s, other economic sectors, particularly the service sector, have been growing (Water Plan, 2013).

#### B. Topographic Setting and Drainage Patterns

Topography of the site and surrounding vicinity is relatively flat with a ground surface slope down to the west-southwest of approximately 6-feet per mile (0.1% slope) (Figure 1). Surface water drainage is managed predominantly by farming and irrigation in the region. Fields are routinely leveled by laser to direct irrigation to tailwater ponds. The South Fork of the Persian Ditch is located 1,110-feet northwest of the site. Evans Ditch is located 1,180-feet southeast of the site. These ditches direct surface water for irrigation of surrounding farmland. Regional drainage follows topography generally from northeast to southwest.

#### C. Surface Water

Rivers draining into the Tulare Lake region include the Kings, Kaweah, Tule, and Kern rivers. Geographic features in the southern portion of the region include lakebeds of the former Buena Vista/Kern and Tulare lakes that comprise the southern half of the region; the Coast Ranges to the west; the Tehachapi Mountains to the south; and the southern Sierra Nevada to the east (Water Plan, 2013).



The Tulare Lake region is divided into several main hydrologic subareas: the alluvial fans from the Sierra foothills and the basin subarea (in the vicinity of the Kings, Kaweah, and Tule rivers and their distributaries); the Tulare Lake bed; and the southwestern uplands. The alluvial fan/basin subarea is characterized by southwest to south flowing rivers, creeks, and irrigation canal systems that convey surface water originating from the Sierra Nevada. The dominant hydrologic features in the alluvial fan/basin subarea are the Kings, Kaweah, Tule, and Kern rivers and their major distributaries from the western flanks of the Sierra. Geographically related to the site, the Kaweah River begins in Sequoia National Park, flows west and southwest, and is impounded by Terminus Dam. It subsequently spreads into many distributaries around Visalia and Tulare trending toward Tulare Lake (Water Plan, 2013).

The watershed map on Figure 3 shows the Tulare Lake watershed and subbasin watersheds. Surface water flowing to geographic areas of the site begins in Upper Kaweah Water Hydrologic Unit 1803007. The surface waters flow further west into Tulare-Buena Vista Lakes Hydrologic Unit 18030012 and includes the purple and orange shaded areas around Visalia (USGS Watersheds, 2018). Data points from 1994 to 2010 indicate the January maximum flow of 17,948 cubic feet per second (cfs) from 1997 is the highest storm flows into Lake Kaweah on the period of record. Flow from the Kaweah watershed drains into the Kaweah River Delta system and through the many drainages and creeks that meander through the City of Visalia. The January maximum outflow from Lake Kaweah is much less than the inflow due to lake retention (Visalia EIR, 2014).

Surface waterways near the site are the south fork of the Persian Ditch located 1,110-feet to the northwest and Evans Ditch located 1,180-feet to the southeast. These canals direct surface water for irrigation of surrounding farmland.



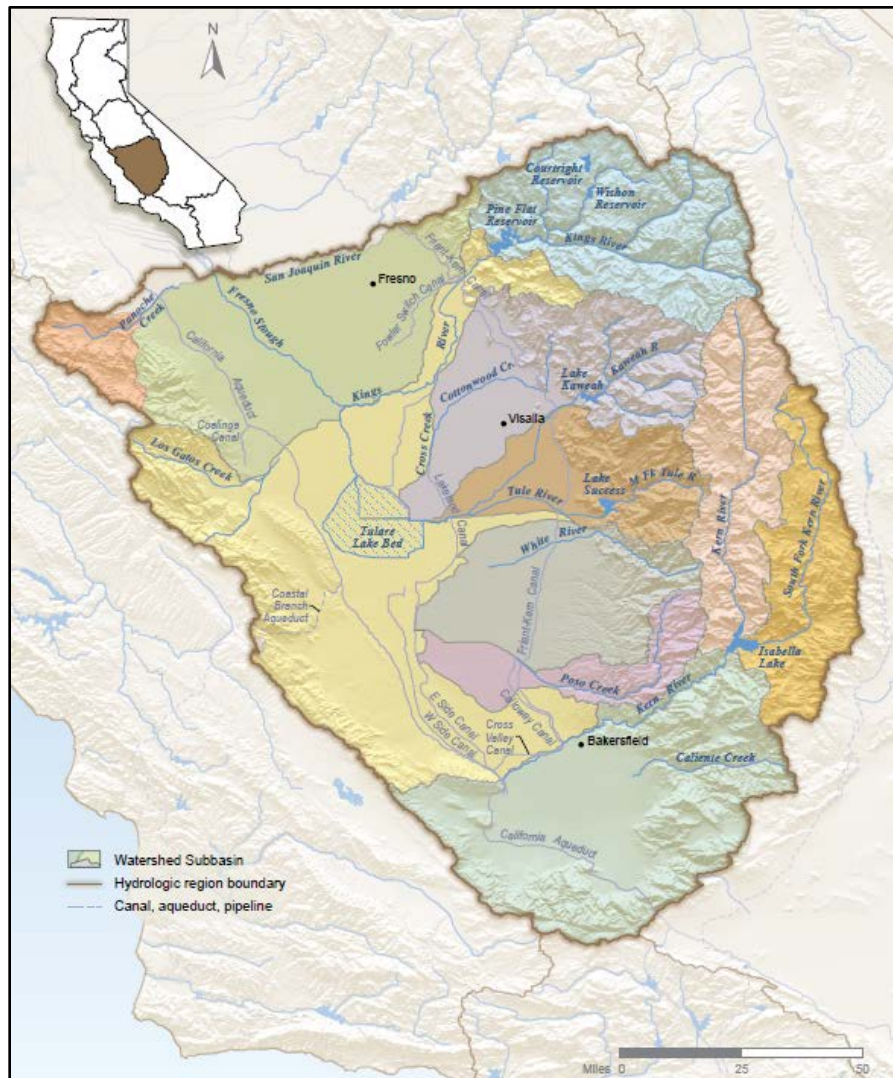


Figure 3. Tulare Lake Region watersheds. Image from Water Plan, 2013.

## 1. Surface Water Quality

Surface water quality in the Basin is generally good, with excellent quality exhibited by most eastside streams. Regional Water Quality Control Board water quality objectives are presented below (WQCP, Tulare Lake, 2018).

3.1.1 Ammonia – Waters shall not contain un-ionized ammonia in amounts which adversely affect beneficial uses. In no case shall the discharge of wastes cause concentrations of un-ionized ammonia ( $\text{NH}_3$ ) to exceed 0.025 mg/l (as N) in receiving waters.

3.1.2 Bacteria – In waters designated REC-1, the fecal coliform concentration based on a minimum of not less than five samples for any 30-day period shall not exceed a geometric mean of 200/100 ml, nor shall



more than ten percent of the total number of samples taken during any 30-day period exceed 400/100 ml.

3.1.3 Biostimulatory Substances – Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

#### Chemical Constituents:

Waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses. The Regional Water Board will consider all material and relevant information submitted by the discharger and other interested parties and numerical criteria and guidelines for detrimental levels of chemical constituents developed by the State Water Board, the California Office of Environmental Health Hazard Assessment, the State Water Board Division of Drinking Water Programs, the U.S. Food and Drug Administration, the National Academy of Sciences, the U. S. Environmental Protection Agency, and other appropriate organizations to evaluate compliance with this objective.

At a minimum, water designated “MUN” shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations, which are incorporated by reference into the plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, Table 64444-A (Organic Chemicals) of Section 64444, and Table 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) of Section 64449. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect. At a minimum, water designated MUN shall not contain lead in excess of 0.015 mg/l. The Regional Water Board acknowledges that specific treatment requirements are imposed by state and federal drinking water regulations on the consumption of surface waters under specific circumstances. To ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses, the Regional Water Board may apply limits more stringent than MCLs.

3.1.5 Color – Waters shall be free of discoloration that causes nuisance or adversely affects beneficial uses.

3.1.6 Dissolved Oxygen – Waste discharges shall not cause the monthly median dissolved oxygen concentrations (DO) in the main water mass (at centroid of flow) of streams and above the thermocline in lakes to fall below 85 percent of saturation concentration, and the 95 percentile concentration to fall below 75 percent of saturation concentration. The DO in surface waters shall always meet or exceed the concentrations in Table 3-1 for the listed specific water bodies and the following minimum levels for all aquatic life:

- Waters designated WARM 5.0 mg/l
- Waters designated COLD or SPWN 7.0 mg/l

Where ambient DO is less than these objectives, discharges shall not cause a further decrease in DO concentrations.



3.1.7 Floating Material – Waters shall not contain floating material, including but not limited to solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.

3.1.8 Oil and Grease – Waters shall not contain oils, greases, waxes, or other materials in concentrations that cause nuisance, result in a visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses.

3.1.9 pH – The pH of water shall not be depressed below 6.5, raised above 8.3, or changed at any time more than 0.3 units from normal ambient pH. In determining compliance with the above limits, the Regional Water Board may prescribe appropriate averaging periods provided that beneficial uses will be fully protected.

3.1.10 Pesticides – Waters shall not contain pesticides in concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses. (For the purposes of this objective, the term pesticide is defined as any substance or mixture of substances used to control objectionable insects, weeds, rodents, fungi, or other forms of plant or animal life.) The Regional Water Board will consider all material and relevant information submitted by the discharger and other interested parties and numerical criteria and guidelines for detrimental levels of chemical constituents developed by the State Water Board, the California Office of Environmental Health Hazard Assessment, the State Water Board Division of Drinking Water Programs, the U.S. Food and Drug Administration, the National Academy of Sciences, the U. S. Environmental Protection Agency, and other appropriate organizations to evaluate compliance with this objective.

At a minimum, waters designated MUN shall not contain concentrations of pesticide constituents in excess of the maximum contaminant levels (MCLs) specified in Table 64444-A (Organic Chemicals) of Section 64444 of Title 22 of the California Code of Regulations, which is incorporated by reference into this plan. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect. The Regional Water Board acknowledges that specific treatment requirements are imposed by state and federal drinking water regulations on the consumption of surface waters under specific circumstances. To ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses, the Regional Water Board may apply limits more stringent than MCLs.

In waters designated COLD, total identifiable chlorinated hydrocarbon pesticides shall not be present at concentrations detectable within the accuracy of analytical methods prescribed in Standard Methods for the Examination of Water and Wastewater, 18th Edition, or other equivalent methods approved by the Executive Officer.

3.1.11 Radioactivity – Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life nor which result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.

At a minimum, waters designated MUN shall not contain concentrations of radionuclides in excess of the maximum contaminant levels (MCLs) specified in Table 64442 of Section 64442 and Table 64443 of Section 64443 of Title 22, California Code of Regulations, which are incorporated by reference into the plan. This



incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect.

3.1.12 Salinity – Waters shall be maintained as close to natural concentrations of dissolved matter as is reasonable considering careful use of the water resources. “The only reliable way to determine the true or absolute salinity of a natural water is to make a complete chemical analysis. However, this method is time-consuming and cannot yield the precision necessary for accurate work” (Standard Methods for the Examination of Water and Wastewater, 18th Edition). Conductivity is one of the recommended methods to determine salinity.

3.1.13 Sediment – The suspended sediment load and suspended sediment discharge rate of waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

3.1.14 Settleable Material – Waters shall not contain substances in concentrations that result in the deposition of material that causes nuisance or adversely affects beneficial uses.

3.1.15 Suspended Material – Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.

3.1.16 Tastes and Odors – Waters shall not contain taste- or odor-producing substances in concentrations that cause nuisance, adversely affect beneficial uses, or impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to domestic or municipal water supplies.

3.1.17 Temperature – Natural temperatures of waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses. Temperature objectives for COLD interstate waters, WARM interstate waters, and Enclosed Bays and Estuaries are as specified in the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays of California, including any revisions.

Elevated temperature wastes shall not cause the temperature of waters designated COLD or WARM to increase by more than 5°F above natural receiving water temperature. In determining compliance with the above limits, the Regional Water Board may prescribe appropriate averaging periods provided that beneficial uses will be fully protected.

3.1.18 Toxicity – All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This objective applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances. Compliance with this objective will be determined by analyses of indicator organisms, species diversity, population density, growth anomalies, biotoxicity tests of appropriate duration, or other methods as specified by the Regional Water Board. The Regional Water Board will also consider all material and relevant information submitted by the discharger and other interested parties and numerical criteria and guidelines for toxic substances developed by the State Water Board, the California Office of Environmental Health Hazard Assessment, the State Water Board Division of Drinking Water Programs the U.S. Food and Drug Administration, the National Academy of Sciences, the U. S. Environmental Protection Agency, and other appropriate organizations to evaluate compliance with this objective.



The survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors shall not be less than that for the same water body in areas unaffected by the waste discharge, or, when necessary, for other control water that is consistent with the requirements for “dilution water” as described in Standard Methods for the Examination of Water and Wastewater, 18th Edition. As a minimum, compliance shall be evaluated with a 96-hour bioassay.

In addition, effluent limits based upon acute biotoxicity tests of effluents will be prescribed where appropriate; additional numerical receiving water quality objectives for specific toxicants will be established as sufficient data become available; and source control of toxic substances will be encouraged.

3.1.19 Turbidity – Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases in turbidity attributable to controllable water quality factors shall not exceed the following limits:

- Where natural turbidity is between 0 and 5 Nephelometric Turbidity Units (NTUs), increases shall not exceed 1 NTU.
- Where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent.
- Where natural turbidity is equal to or between 50 and 100 NTUs, increases shall not exceed 10 NTUs.
- Where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

In determining compliance with the above limits, the Regional Water Board may prescribe appropriate averaging periods provided that beneficial uses will be fully protected.

## 2. Surface Water Supply

Near the site, surface-water supplies in the past have been generally inadequate to meet irrigation demands, and overdraft on groundwater supplies has been widespread. As a result, water level fluctuations have occurred in response to the groundwater withdrawals. The water table declines rapidly in late spring and summer and recovers as pumping ceases late in the autumn. In over-drafted areas, a year by-year decline has occurred. Imports of Central Valley Project surface water through the Friant Kern Canal have supplied additional recharge to the groundwater basins locally and helped to reduce pumping overdraft (Davis, et. al., 1959).

Surface runoff in the Visalia area generally flows from east to west and terminates in the Tulare Lake Basin. Major surface water resources in the area include the St. John’s River, Modoc Ditch, Mill Creek Ditch, Mill Creek, Tulare Irrigation District (TID) Canal, Packwood Creek, Cameron Creek, Deep Creek, Evans Creek, Persian Ditch, and several other local ditches. Except for the TID Canal, most watercourses are intermittent drainages that receive a significant portion of flow from storm water runoff during the rainy season (Visalia EIR, 2014).

Mitigating groundwater overdraft has become an important objective for the state, counties, and the developer of this project. Since groundwater overdraft mitigation has become a common practice, water usage has become more conservative and alternative methods of reuse and recycling have become realities. Water reuse is a proposed mitigation item for this project to reduce the water demand on wells



by reducing and eliminating the water volumes required and recycling water for the ready mix concrete plant.

### 3. Flooding

The proposed project will not contain housing. The project lies within flood area Zone A (shaded in blue on Figure 4); a Special Flood Hazard Area subject to inundation by the 1% annual chance flood according to the Federal Emergency Management Agency (FEMA) flood zone designation. The 1% annual flood (100 year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. Detailed analyses are not performed for such areas. As a result, no depths or base flood elevation are shown within these zones. Figure 4 shows the FEMA Flood Insurance Rate Map (FIRM), map number 6107C0917E, effective date June 16, 2009.

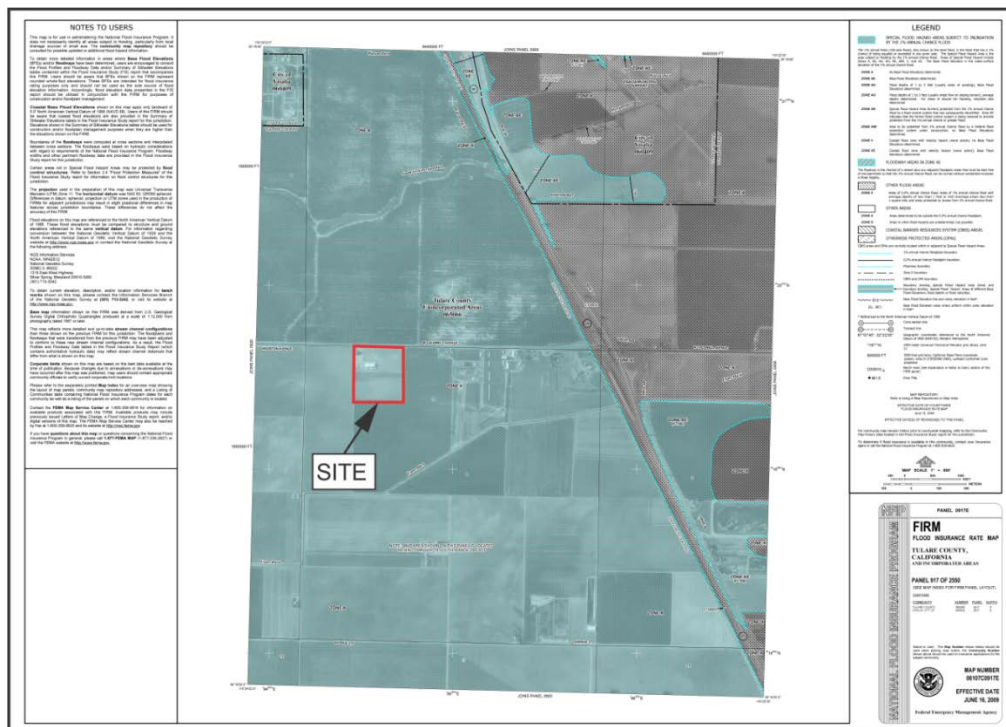


Figure 4. FEMA FIRM showing the site to be located in Zone A, specified as being in a Special Flood Hazard Area that has a 1% chance of being equaled or exceeded in any given year (100 year flood).

### D. Groundwater

#### 1. Groundwater Occurrence

Groundwater from the Kaweah subbasin has been the primary source of water for the subject area in the past. Groundwater will remain the primary source of water for the subject area after development. The Kaweah subbasin is part of the Tulare Lake Basin within the Central Valley and encompasses an area of 446,000 acres on the valley floor with an average annual precipitation of 11 inches (DWR, 2003).



The Tulare Lake Hydrologic Region contains 12 groundwater basins and 7 subbasins that underlie approximately 8,400 square miles, or about 50 percent of the region. The majority of the groundwater in the region is stored in alluvial aquifers. Pumping from alluvial aquifers in the region accounts for about 38 percent of California's total average annual groundwater extraction. The most heavily used groundwater basins in the region include Kings, Westside, Kaweah, Tulare Lake, Tule, and Kern County. These basins account for approximately 98 percent of the average 6.3 million acre-feet (maf) of groundwater pumped annually during the 2005-2010 period. Groundwater pumping rates in the various subbasins were determined to range from about 650 gallons per minute (gpm) to about 1,650 gpm (Water Plan Update, 2013).

The main freshwater-bearing sediments beneath the Site include flood basin deposits, younger alluvium, older alluvium, the Tulare Formation, and continental deposits undifferentiated. Within the alluvial deposits, groundwater occurs under confined and unconfined conditions (Davis et.al., 1959). These deposits supply nearly all the water pumped from wells in the valley and are the primary source of freshwater. Groundwater moves in response to the hydraulic gradient from areas of recharge to areas of discharge. Under natural conditions, the unconfined and semiconfined groundwater in the San Joaquin Valley moves toward topographically low central areas, where it is discharged at the land surface or consumed by plants.

Groundwater resources in the Tulare Lake region are supplied by both alluvial and fractured rock aquifers. Alluvial aquifers are composed of sand and gravel or finer grained sediments, with groundwater stored within the voids, or pore space, between the alluvial sediments. Fractured-rock aquifers consist of impermeable granitic, metamorphic, volcanic, and hard sedimentary rocks, with groundwater being stored within cracks, fractures, or other void spaces. The distribution and extent of alluvial and fractured-rock aquifers and water wells vary significantly within the region (Water Plan Update, 2013).

Fractured-rock aquifers are generally found in the mountain and foothill areas adjacent to alluvial groundwater basins. Due to the highly variable nature of the void spaces within fractured-rock aquifers, wells drawing from fractured-rock aquifers tend to have less capacity and less reliability than wells drawing from alluvial aquifers. On average, wells drawing from fractured-rock aquifers yield 10 gpm or less. Although fractured-rock aquifers are less productive compared to alluvial aquifers, they commonly are the critical sole source of water for many communities (Water Plan Update, 2013).

## 2. Groundwater Quality

The following objectives apply to all ground waters in the Tulare Lake Basin, except for those areas with specific beneficial use exceptions of selected areas around oil and gas production listed on Table 2-3 of the Tulare Lake Water Quality Control Plan (WQCP, Tulare Lake, 2018).

3.2.1 Bacteria – In ground waters designated MUN, the concentration of total coliform organisms over any 7-day period shall be less than 2.2/100 ml.

3.2.2 Chemical Constituents – Ground waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses. The Regional Water Board will consider all material and relevant information submitted by the discharger and other interested parties and numerical criteria and



guidelines for detrimental levels of chemical constituents developed by the State Water Board, the California Office of Environmental Health Hazard Assessment, the State Water Board Division of Drinking Water Programs, the U.S. Food and Drug Administration, the National Academy of Sciences, the U. S. Environmental Protection Agency, and other appropriate organizations to evaluate compliance with this objective.

At a minimum, waters designated MUN shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCLs) specified in the following provisions of Title 22 of the California Code of Regulations, which are incorporated by reference into this plan: Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, Table 64444-A (Organic Chemicals) of Section 64444, and Table 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Ranges) of Section 64449. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect.

At a minimum, water designated MUN shall not contain lead in excess of 0.015 mg/l. To ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses, the Regional Water Board may apply limits more stringent than MCLs.

3.2.3 Pesticides – No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses.

At a minimum, waters designated MUN shall not contain concentrations of pesticide constituents in excess of the maximum contaminant levels (MCLs) specified in Table 64444-A (Organic Chemicals) of Section 64444 of Title 22 of the California Code of Regulations, which is incorporated by reference into this plan. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect. The Regional Water Board acknowledges that specific treatment requirements are imposed by state and federal drinking water regulations on the consumption of surface waters under specific circumstances. More stringent objectives may apply if necessary to protect other beneficial uses.

3.2.4 Radioactivity – Radionuclides shall not be present in ground waters in concentrations that are deleterious to human, plant, animal, or aquatic life, or that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal or aquatic life.

At a minimum, ground waters designated MUN shall not contain concentrations of radionuclides in excess of the maximum contaminant levels (MCLs) specified in Table 64442 of Section 64442 and Table 64443 of Section 64443 of Title 22, California Code of Regulations, which are incorporated by reference into the plan. This incorporation-by-reference is prospective, including future changes to the incorporated provisions as the changes take effect.

3.2.5 Salinity – All ground waters shall be maintained as close to natural concentrations of dissolved matter as is reasonable considering careful use and management of water resources, except for those areas with specific beneficial use exceptions as listed in Table 2-3. No proven means exist at present that will allow ongoing human activity in the Basin and maintain ground water salinity at current levels



throughout the Basin. Accordingly, the water quality objectives for ground water salinity control the rate of increase. The maximum average annual increase in salinity measured as electrical conductivity shall not exceed the values specified in Table 3-4 for each hydrographic unit, except for those areas with specific beneficial use exceptions as listed in Table 2-3. The average annual increase in electrical conductivity will be determined from monitoring data by calculation of a cumulative average annual increase over a 5-year period.

3.2.6 Tastes and Odors – Groundwaters shall not contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses.

3.2.7 Toxicity – Groundwaters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial use(s). The Regional Water Board will also consider all material and relevant information submitted by the discharger and other interested parties and numerical criteria and guidelines for toxic substances developed by the State Water Board, the California Office of Environmental Health Hazard Assessment, the State Water Board Division of Drinking Water Programs, the U.S. Food and Drug Administration, the National Academy of Sciences, the U. S. Environmental Protection Agency, and other appropriate organizations to evaluate compliance with this objective. This objective applies regardless of whether the toxicity is caused by a single substance or the interactive effect of multiple substances.

### 3. Local Groundwater Quality

Groundwater from site groundwater wells was not analyzed. There is one domestic water well on site within the fenced area connected to an above ground water storage tank. There are two agricultural water wells on the site located near the northeast corner of the site (Figure 2). The northernmost well is an older well and is not in use. A newer, approximately three year old well, is also located near the northeast corner of the site 160 feet south of the older agricultural well. Surrounding domestic wells in the near vicinity of the site are assumed to serve the public from the same aquifer.

The well(s) to be used for the site should be sampled with analysis once retrofitted for the project. Sampling and analysis should occur during the initial phases of retrofitting; specifically, during pump testing. If water quality does not meet the State of California standards as discussed above, steps should be taken during the design of the site such as disinfection, to ensure the water is potable for project use.

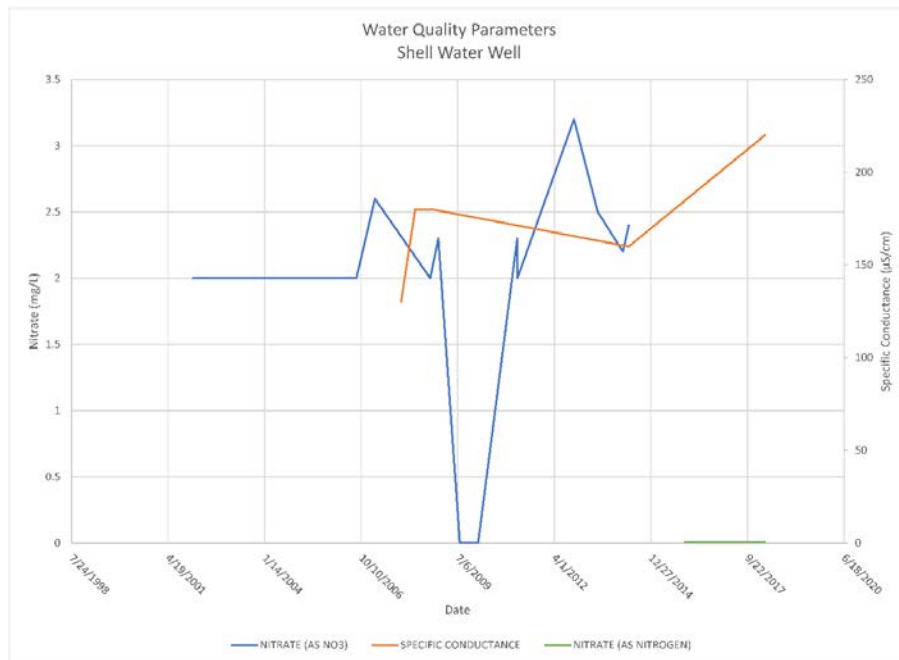
Groundwater quality was assessed near the site from two Public Water Wells. Data from the Geotracker Groundwater Ambient Program (Geotracker GAMA, 2018) website were downloaded for review. Water quality parameters Nitrate as  $\text{NO}_3$ , Nitrate as Nitrogen, and Specific Conductance were evaluated from two Public Water Well System Wells near the site. One well is located at the Shell gasoline station approximately 0.8 mile upgradient and east of the site and the second well is located at Sycamore Academy 1.15 miles west and downgradient of the site. Table 1 shows the sample dates and analytical results for the Shell Water Well. A graph of water quality parameter for the Shell Water Well is presented below in Figure 5.



**Table 1. Groundwater Quality Parameters for the Shell Water Well located 0.8 miles east of the site.**

Date Sampled	Nitrate as NO <sub>3</sub> (mg/L)	Nitrate as Nitrogen (mg/L)	Specific Conductance (μS/cm)
1/2/2002	2	--	--
9/27/2005	2	--	--
8/22/2006	2	--	--
3/1/2007	2.6	--	--
11/27/2007	--	--	130
4/22/2008	--	--	180
9/25/2008	2	--	--
10/14/2008	--	--	180
12/17/2008	2.3	--	--
7/28/2009	0	--	--
2/2/2010	0	--	--
3/15/2011	2.3	--	--
3/16/2011	2	--	--
10/23/2012	3.2	--	--
6/25/2013	2.5	--	--
3/13/2014	2.2	--	--
5/13/2014	2.4	--	--
5/13/2014	--	--	160
5/13/2014	--	--	--
2/24/2015	2.5	--	--
12/15/2015	--	0.5	--
1/21/2016	--	0.45	--
1/30/2017	--	0.42	--
1/5/2018	--	0.46	--
3/23/2018	--	--	220
3/23/2018	--	0.57	--





**Figure 5. Water quality with Nitrate as NO<sub>3</sub>, Nitrate as Nitrogen, and Specific Conductance, Shell Water Well.**

The secondary maximum contaminant level (SMCL) for specific conductance (SP) ranges from 900 to 1,600 micro Siemens per centimeter (µS/cm). According to California Code of Regulations, Title 22, Division 4, Chapter 15, Article 16, the SMCL for SP is not to be exceeded in community water systems. The maximum value for SP in the Shell Water Well was 220 µS/cm between the range of dates analyzed from November 2007 and March 2018.

According to United States Environmental Protection Agency National Primary Drinking Water Regulations, the maximum contaminant level (MCL) for Nitrate as Nitrogen is 10 mg/L. The State Water Resources Control Board MCL for Nitrate as NO<sub>3</sub> is 45 milligrams per liter (mg/L).

The maximum value for Nitrate as NO<sub>3</sub> was 3.2 mg/L and Nitrate as Nitrogen was 0.57 mg/L from January 2002 through March 2018. The measured parameters do not exceed the regulatory SMCL and MCL.



Table 2 shows the sample dates and analytical results for the Sycamore Academy Water Well. A graph of water quality parameter for the Sycamore Academy Water Well is presented below in Figure 6.

**Table 2. Groundwater Quality Parameters for the Sycamore Academy Water Well located 1.15 miles west of the site.**

Date Sampled	Nitrate as NO <sub>3</sub> (mg/L)	Specific Conductance (μS/cm)
4/22/2004	14	--
4/22/2004	14	--
4/22/2004	--	450
4/22/2004	--	450
3/1/2005	15	--
3/1/2005	15	--
3/14/2006	22	--
3/14/2006	22	--
3/12/2007	21	--
3/12/2007	21	--
3/19/2008	22	--
3/19/2008	22	--
3/19/2008	--	610
3/19/2008	--	610
10/13/2008	--	500
10/13/2008	--	500
5/4/2009	20	--
5/4/2009	20	--
2/1/2010	21	--
2/1/2010	21	--
5/2/2011	25	--
5/2/2011	25	--
5/1/2012	0	--
5/1/2012	0	--
5/2/2013	15	--
5/2/2013	15	--
8/27/2013	31	--
8/27/2013	31	--
8/27/2013	--	490
8/27/2013	--	490
3/4/2014	32	--
3/4/2014	32	--
3/5/2015	35	--



Date Sampled	Nitrate as NO <sub>3</sub> (mg/L)	Specific Conductance (μS/cm)
3/5/2015	35	--
6/3/2015	35	--
6/3/2015	35	--
9/1/2015	35	--
9/1/2015	35	--
3/9/2016	--	520
3/9/2016	--	520

A graph of water quality parameters for the Sycamore Academy Water Well is presented below in Figures 8.



**Figure 6. Water quality with Nitrate as NO<sub>3</sub> and Specific Conductance, Sycamore Academy Water Well.**

The maximum value for SP in the Sycamore Academy Water Well was 610 μS/cm between the range of dates analyzed from April 2004 and March 2016. The maximum value for Nitrate as NO<sub>3</sub> in the Sycamore Academy Water Well was 35 mg/L between the range of dates analyzed from April 2004 and September 2015. There was no Nitrate as Nitrogen data available for the Sycamore Academy Water Well. Water quality parameters did not exceed the SMCL or MCL.

#### 4. Groundwater Supply

Groundwater flowing through shallow parts of the aquifer system beneath the site emanates as runoff at higher elevations, specifically from the Sierra Nevada Mountains. The eastern valley margin soils are generally more coarse and permeable especially along the east side of the Tule subbasin adjacent to the



Sierra Nevada foothills (USGS, 1995). Deep percolation on the valley floor up-gradient from swampy areas and lakes is a significant source of recharge in wetter areas and during wetter years (Williamson, et.al., 1989).

Based on the Central Valley Hydrologic Model (CVHM), the average groundwater recharge from surface water processes throughout the Central Valley is 7.7-million acre-feet per year. The average annual hydrologic budget from the years 1962-2003 net recharge from landscape (surface water processes) from the CVHM within the combined Kaweah/Tule basin “water balance sub regions” was 710,000 acre-feet (Faunt, 2009).

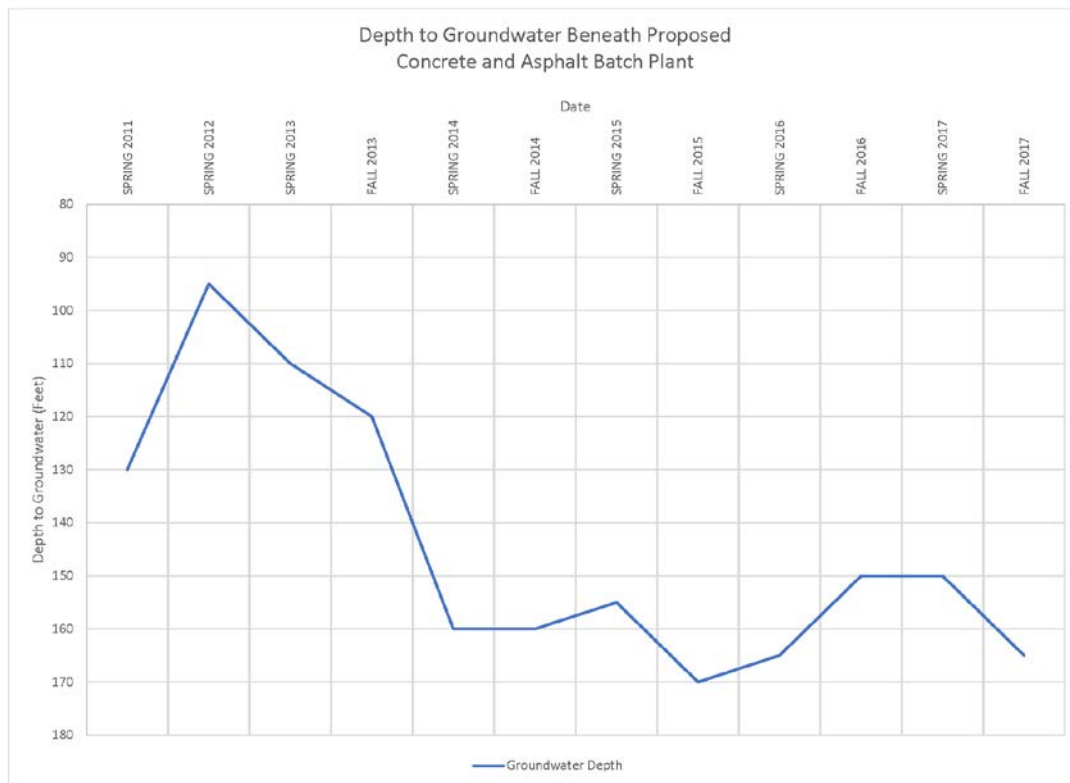
Recharge rates from precipitation have not changed significantly from predevelopment times. Generally, recharge of the Central Valley Aquifer system occurs during the winter months (December through March) and discharge occurs during the summer months which include the growing season (May through September). Large amounts of water are drawn from storage during the pumping period. The shallow portion of the aquifer system receives some recharge during irrigation. In typical years, water levels generally recover during the wet season (December through March) (Faunt, 2009).

In much of the valley, the annual rainfall is so low that little precipitation penetrates deeply, and soil-moisture deficiency is perennial. Infiltration from stream channels, canals, and irrigated fields are the principal sources of groundwater recharge (Davis, et.al., 1964). Precipitation falling on the valley floor during the rainy season provides only a small part of the total recharge (Faunt, 2009).

## 5. Local Depth to Groundwater

The Department of Water Resources (DWR) Groundwater Information Center Interactive Map Application (GICIMA) was reviewed for site specific depth to groundwater (DWR, 2018). Groundwater contours around the site from Spring 2011 through Spring 2017 were analyzed for depth to groundwater beneath the site. Figure 7 below shows the depth to groundwater beneath the site since 2011.





**Figure 7. Depth to Groundwater Beneath the Site – Spring 2011 through Spring 2017**

## 6. Site Depth to Groundwater

On September 21, 2018, depth to groundwater was assessed in the three onsite wells using a Solinst Model 101 150-foot water level meter. Depth to groundwater was measured at 127.36 feet below the top of the well casing in the older unused northeast ag well. The new ag well was not accessible. The domestic well was sounded but groundwater was deeper than 150-feet; the maximum length of the water level meter line.

## 7. Anticipated Highest Groundwater

Based on Figure 7, the anticipated highest groundwater is approximately 95 feet below ground surface. Site specific soil data can be used to assess the anticipated depth to groundwater by looking at textural features such as mottling and redox conditions. However, site specific subsurface soils were not available for review.

## 8. Groundwater Flow Direction

Groundwater surface can be contoured from three or more elevation data points, typically from wells surrounding a site, using relative elevations based on a temporary benchmark or mean sea level. A minimum of three wells is necessary to calculate the groundwater surface and define the slope of the groundwater surface. Three wells were not available to measure groundwater elevations around the site.



In lieu of groundwater data from on-site water wells, semi-annual groundwater elevation data from DWR GICIMA during Spring 2011 through Fall 2017 were evaluated to assess the groundwater surface and regional groundwater flow direction. Groundwater surface contours from the DWR indicate groundwater flows primarily to the south and southwest from Spring 2011 through Fall 2017 measurements. Table 3 below shows the groundwater flow direction for fall and spring from 2011 through 2017.

**Table 3. Groundwater flow direction beneath the site from DWR groundwater contours.**

<b>Monitoring Period</b>	<b>Groundwater Flow Direction (DWR)</b>
Spring 2011	Southwest
Spring 2012	Southwest
Spring 2013	South
Fall 2013	South
Spring 2014	South
Fall 2014	Southwest
Spring 2015	South
Fall 2015	South
Spring 2016	Southeast
Fall 2016	Southwest
Spring 2017	South
Fall 2017	South



## IV. SUMMARY AND CONCLUSIONS

The California Environmental Quality checklist was evaluated based on the hydrology and water quality conditions reviewed for the site.

### Section IX. HYDROLOGY AND WATER QUALITY

#### Would the project:

##### a) Violate any water quality standards or waste discharge requirements?

##### Septic System

The Onsite Wastewater Treatment System (OWTS) is located on the west side of the office and is constructed with a dual chamber septic tank that is four feet wide by nine feet long by four feet deep and approximately 1,000 gallon volume. Effluent from the septic tank is leached into a four foot diameter by 30 foot deep concrete lined seepage pit. Available information for the septic system indicates it was repaired in January 1978. The septic system was utilized for onsite use. According to the site owner, the currently permitted OWTS is functioning and is expected to be utilized for the proposed operations.

Onsite wastewater systems in the area are served by private septic systems. The City of Visalia Boundary is located on the north side of Avenue 280, north of the site. There are no city sewer or stormwater conveyance structures near the site.

On April 5, 2018, the State Water Resources Control Board (SWRCB) approved the Local Agency Management Program (LAMP) for Tulare County. The Central Valley Regional Water Quality Control Board approved Resolution R5-2018-0009 applies to the Local Agency Management Program (LAMP) for the Tulare County Resource Management Agency and Tulare County Environmental Health Division (CRWCQB, 2018).

The LAMP provides a new regulatory framework for the permitting of Onsite Wastewater Treatment Systems (OWTS). The Tulare County Environmental Health Services Division (TCEHSD) prepared a document to advise local OWTS designers and other stakeholders of some of the major changes in the LAMP as follows (Tulare County, 2018).

The SWRCB adopted the final version of the Water Quality Control Policy for Siting, Design, Operation and Maintenance of OWTS in May 2013. Pursuant to Water Code Section 13291 (b)(3), the adopted policy describes requirements authorizing a qualified local agency to implement the adopted policy. The LAMP policies are developed by the local agencies based on local conditions. Approval of Tulare County's LAMP by the SWRCB allows the LAMP to become the standard by which the County will regulate OWTS. This approach allows for greater flexibility at the local level, rather than a "one size fits all" approach outlined by the State.

The LAMP covers the installation of new & replacement OWTS, as well as repair systems for existing OWTS. The LAMP is not intended to cover OWTS that have the following characteristics.



- Existing OWTS that are functioning normally.
- Proposed OWTS that will have design waste flow of greater than 3,500 gallons per day.
- OWTS with anticipated high amounts of fats, oils & grease (FOG), or OWTS with anticipated high values for Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS).
- OWTS that will require nitrogen reduction to mitigate certain limiting conditions.
- OWTS with supplemental treatment systems

When the above listed special conditions apply to a proposed/replacement OWTS, the application for the OWTS may be referred to the SWRCB for review and/or permitting.

The project OWTS is currently functional and is expected to be utilized for the proposed operations. If the current system is functioning normally and does not meet any of the other four characteristics outlined in bullet points above, it will not be required to fall under the conditions of the Tulare County LAMP and should be allowed for use considering it is fully functional and can handle design flows for proposed operations. If the on-site OWTS is not fully functional and meets any of the other four characteristics outlined in bullet points above, the system will not be covered by the Tulare County LAMP and will be referred to the SWRCB for review and/or permitting.

If new, replacement, or repair of the existing system is proposed or required for the site, the design and construction will fall under the Tulare County LAMP regulatory standards for the installation of new & replacement OWTS, as well as repair systems for the existing OWTS. It is our understanding that the project OWTS is permitted and fully functional and will be utilized for the proposed operations. Therefore, impact from the project OWTS is less than significant.

#### Stormwater

The Federal Clean Water Act, as amended in 1987, is the principal legislation for establishing requirements or the control of stormwater pollutants from urbanization and related activities. The State Porter-Cologne Act (Water Code 13000, et seq.) is the principal legislation for controlling stormwater pollutants in California. In 1972, the Federal Water Pollution Control Act (also referred to as the Clean Water Act [CWA]) was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with an NPDES permit. The 1987 amendments to the CWA added Section 402(p), which establishes a framework for regulating municipal and industrial stormwater discharges, including discharges associated with construction activities, under the NPDES Program (CSQA Industrial/Commercial, 2003).

In California, the State Water Resources Control Board (SWRCB) through the nine Regional Water Quality Control Boards (RWQCB) administers the NPDES stormwater permitting program. For industrial facilities and construction activities, the SWRCB elected to issue statewide general permits that apply to all stormwater discharges requiring an NPDES permit (CSQA Industrial/Commercial, 2003).

Construction and commercial activities regarding stormwater best management practices (BMPs) for the site should be identified under a Stormwater Pollution Prevention Plan (SWPPP). BMPs are measures to prevent or mitigate pollution. Potential sources of pollution could include maintenance of machinery, the



asphalt plant, and concrete plant. Pollutants could include petroleum hydrocarbons such as oil and grease, gasoline constituents, diesel constituents, natural gas, and suspended solids.

SWPPP requirements include the following (General Permit, 2012).

The discharger shall ensure that the Storm Water Pollution Prevention Plans (SWPPPs) for all traditional project sites are developed and amended or revised by a qualified SWPPP Developer (QSD). The SWPPP shall be designed to address the following objectives:

- 1) All pollutants and their sources, including sources of sediment associated with construction, construction site erosion and all other activities associated with construction activity are controlled.
- 2) Where not otherwise required to be under a Regional Water Board permit, all non-storm water discharges are identified and either eliminated, controlled, or treated.
- 3) Site BMPs are effective and result in the reduction or elimination of pollutants in storm water discharges and authorized non-storm water discharges from construction activity to the BAT/BCT standard.
- 4) Calculations and design details as well as BMP controls for site run-on are complete and correct.
- 5) Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.

To demonstrate compliance with requirements of the General Permit, the QSD shall include information in the SWPPP that supports the conclusions, selections, use, and maintenance of BMPs. The discharger shall make the SWPPP available at the construction site during working hours while construction is occurring and shall be made available upon request by a State or Municipal inspector. When the original SWPPP is retained by a crewmember in a construction vehicle and is not currently at the construction site, current copies of the BMPs and map/drawing will be left with the field crew and the original SWPPP shall be made available via a request by radio/telephone.

For construction activities, selection and implementation of best management practices (BMPs) is based on the pollution risks associated with the construction activity. The pollution prevention objectives of BMPs are defined based on a review of information gathered during the assessment of the site and planned activities (CSQA Construction, 2003). Once defined, BMP objectives are developed and BMPs selected. The BMP objectives for construction projects are as follows:

- Control of Erosion, and Discharge of Sediment:
  - Minimize Disturbed Areas: Only clear land which will be actively under construction in the near term (e.g., within the next 6-12 months), minimize new land disturbance during the rainy season, and avoid clearing and disturbing sensitive areas (e.g., steep slopes and natural watercourses) and other areas where site improvements will not be constructed.
  - Stabilize Disturbed Areas: Provide temporary stabilization of disturbed soils whenever active construction is not occurring on a portion of the site. Provide permanent stabilization during finish grade and landscape the site.
  - Protect Slopes and Channels: Safely convey runoff from the top of the slope and stabilize disturbed slopes as quickly as possible. Avoid disturbing natural channels. Stabilize temporary and permanent channel crossings as quickly as possible and ensure that



- increases in runoff velocity caused by the project do not erode the channel.
- Control Site Perimeter: Delineate site perimeter to prevent disturbing areas outside the project limits. Divert upstream run-on safely around or through the construction project. Local codes usually state that such diversions must not cause downstream property damage or be diverted into another watershed. Runoff from the project site should be free of excessive sediment and other constituents. Control tracking at points of ingress to and egress from the project site.
- Retain Sediment: Retain sediment-laden waters from disturbed, active areas within the site.
- Manage Non-Stormwater Discharges and Materials:
  - Practice Good Housekeeping: Perform activities in a manner to keep potential pollutants from coming into contact with stormwater or being transported off site to eliminate or avoid exposure.
  - Contain Materials and Wastes: Store construction, building, and waste materials in designated areas, protected from rainfall and contact with stormwater runoff. Dispose of all construction waste in designated areas and keep stormwater from flowing onto or off of these areas. Prevent spills and clean up spilled materials.

BMPs for erosion and sediment control are selected to meet the BMP objectives based on specific site conditions, construction activities, and cost. Various BMPs may be needed at different times during construction since activities are constantly changing site conditions. Selection of erosion control BMPs should be based on minimizing disturbed areas, stabilizing disturbed areas, and protecting slopes and channels. Selection of sediment control BMPs should be based on retaining sediment on-site and controlling the site perimeter (CSQA Construction, 2003).

For commercial or industrial BMPs, they are commonly defined two ways: whether they are Non-Structural or Structural and whether they are Source Control or Treatment Control (CSQA Industrial/Commercial, 2003). The following provides a framework for selection of BMPs.

- Non-Structural BMPs - Generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from entering stormwater. They are generally low cost and low technology in nature.
- Structural BMPs - Some prevent the pollutants from reaching stormwater, such as a roof cover. Others treat or remove pollutants in stormwater, such as detention basins.
- Source Control BMPs - Prevent contact between stormwater and the pollution source and can be structural or non-structural. Examples of source control nonstructural and structural BMPs include using alternative less toxic chemicals and covering an activity area that is a pollutant source. Source control BMPs are preferred over treatment control BMPs because they are generally 100% effective if implemented properly and are usually, but not always less costly than treatment control BMPs.



Source Control BMPs include:

- **Non-Stormwater Management**
  - Non-Stormwater Discharges
  - Spill Prevention, Control and Cleanup
- **Vehicle and Equipment Management**
  - Vehicle and Equipment Fueling
  - Vehicle and Equipment Cleaning
  - Vehicle and Equipment Repair
- **Material and Waste Management**
  - Outdoor Loading/Unloading
  - Outdoor Liquid Container Storage
  - Outdoor Equipment Operations
  - Outdoor Storage of Raw Materials
  - Waste Handling and Disposal
  - Safer Alternative Products
- **Building and Grounds Management**
  - Contaminated or Erodible Areas
  - Building & Grounds Maintenance
  - Building Repair and Construction
  - Parking/Storage Area Maintenance
  - Drainage System Maintenance
- Treatment Control BMPs - Treat the stormwater to remove pollutant(s) and are structural by their basic nature. Treatment control BMPs are not 100% effective, even if maintained and operated properly. There is also uncertainty as to the effectiveness and reliability of treatment control BMPs.

Treatment Control BMPs include:

- Infiltration Trench
- Infiltration Basin
- Retention/Irrigation
- Wet Pond
- Constructed Wetland
- Extended Detention Basin
- Vegetated Swale
- Vegetated Buffer Strip
- Bioretention
- Media Filter
- Water Quality Inlet
- Multiple Systems



### Groundwater Quality

The California Department of Public Health's water system permit application indicates that any well serving drinking water to at least 25 persons for at least 60 days out of the year is a public water system. The facility is not expected to employ more than 25 workers for more than 60 days a year, therefore the site would be considered a non-community water system. The proposed project will utilize the existing domestic well and/or new agricultural well for potable uses associated with the project.

Site specific groundwater quality data were not available. Groundwater quality was assessed near the site from data obtained on the Geotracker GAMA website. Water quality parameters Nitrate as  $\text{NO}_3$ , Nitrate as Nitrogen, and Specific Conductance were evaluated from two Public Water Well System Wells near the site. One well is located at the Shell gasoline station approximately 0.8 mile upgradient and east of the site and the second well is located at Sycamore Academy 1.15 miles west and downgradient of the site.

The maximum value for SP in the Shell Water Well was 220  $\mu\text{S}/\text{cm}$  between the range of dates analyzed from November 2007 and March 2018. The maximum value for Nitrate as  $\text{NO}_3$  was 3.2 mg/L and Nitrate as Nitrogen was 0.57 mg/L from January 2002 through March 2018. The measured parameters do not exceed the regulatory SMCL and MCL.

The maximum value for SP in the Sycamore Academy Water Well was 610  $\mu\text{S}/\text{cm}$  between the range of dates analyzed from April 2004 and March 2016. The maximum value for Nitrate as  $\text{NO}_3$  in the Sycamore Academy Water Well was 35 mg/L between the range of dates analyzed from April 2004 and September 2015. There was no Nitrate as Nitrogen data available for the Sycamore Academy Water Well. Water quality parameters did not exceed the SMCL or MCL.

All infrastructure designed for the site will be constructed to local, state, and/or federal standards. All potential sources of pollution will be designed to retain the pollution and meet regulatory requirements. It is anticipated that the project will require preparation and approval of waste discharge requirements by the Central Valley Regional Water Quality Control Board. Therefore, violation of water quality standards or waste discharge requirements will be less than significant.

**b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

The project owner has indicated the project will require 5,000 to 6,000 gallons of water for daily operations; equal to 3.5 to 4.2 gallons of flow per minute from the newly constructed agricultural well located near the northeast corner of the site. Based on these estimates, total annual flow is estimated to be 5.60 to 6.72 acre-feet per year. Anticipated water use for the project will be from the office, dust control, landscaping, and the concrete and asphalt plants.

It is estimated that a one-acre rural residential property with one domestic well utilizes approximately 2.0 to 3.0 acre-feet per year depending on home size and irrigation use. The total estimated groundwater



usage for the project of between 5.60 and 6.72 acre-feet is approximately twice that of the average rural residential property with a domestic well. Therefore, depletion of groundwater by the project will be less than significant.

The estimated change in storage beneath the 19.98 acre site was calculated with change in groundwater elevation across various date range spanning the years 2003 through 2018 in the fall and spring seasons. These temporal and groundwater elevation data were reviewed from the Department of Water Resources GICIMA. The 2013 California Water Plan reports minimum and maximum specific yields values for the southern San Joaquin Valley aquifer system of 0.07 and 0.17. Table 3 shows the calculated minimum and maximum change in storage beneath the site for various date ranges.

The minimum specific yield (0.07), 19.98 acre site, and groundwater elevation changes yielded a minimum change in storage of 1.1 acre-feet and a maximum of 69.9 acre-feet. The average change in storage was 28.5 acre-feet across all date ranges.

The maximum specific yield (0.17), 19.98 acre site, and groundwater elevation changes yielded a minimum change in storage of 2.7 acre-feet and a maximum of 169.8 acre-feet. The average change in storage was 67.5 acre-feet across all date ranges.

**Table 3. Change in Storage Beneath Site – Date Ranges 2003 through 2018**

Change in Storage beneath Site

Date Ranges 2008 through 2018

Acres of Site	19.98
Specific Yield, Sy=	
0.07	0.17

Date Range	Elevation Change (Feet)	Change in Storage Acre-Feet (Sy = 0.07)	Change in Storage Acre-Feet (Sy = 0.17)
S2018-S2017	10	14.0	34.0
S2018-S2015	0.8	1.1	2.7
S2018-S2013	15.5	21.7	52.6
S2018-S2008	30	42.0	101.9
F2017-F2016	10	14.0	34.0
F2017-F2012	20	28.0	67.9
S2017-S2016	10	14.0	34.0
S2017-S2014	18	25.2	61.1
F2016-F2011	30	42.0	101.9
S2016-S2015	10	14.0	34.0
S2016-S2013	40	55.9	135.9
S2016-S2011	45	62.9	152.8
S2016-S2006	50	69.9	169.8
F2015-F2012	20	28.0	67.9
S2015-S2014	9	12.6	30.6



Date Range	Elevation Change (Feet)	Change in Storage Acre-Feet (Sy = 0.07)	Change in Storage Acre-Feet (Sy = 0.17)
S2015-S2012	29.3	41.0	99.5
F2014-F2013	9	12.6	30.6
F2014-F2011	22.3	31.2	75.7
S2014-S2013	7.3	10.2	24.8
S2013-S2012	13	18.2	44.2
S2013-S2003	18	25.2	61.1
	MAXIMUM	69.9	169.8
	MINIMUM	1.1	2.7
	ARITHMETIC MEAN	28.5	67.5

Values in Red = Nearby Well 19S24E08D002M

Values in Black = Interpolated from GICIMA Contours

\*Data from DWR Groundwater Information Center Interactive Map Application

\*\* Specific Yield values from 2013 California Water Plan Update

The overall calculated changes in storage beneath the site ranged from 1.1 acre feet to 169.8 acre-feet. One date range, from spring 2015 to spring 2018 included a groundwater elevation change of 0.8 feet and yielded a change in storage between those years of 1.1 acre-feet. Most of the calculated changes in storage were a magnitude larger than the minimum and were greater than the estimated changes in storage for the site of 5.60 to 6.72 acre-feet. Therefore, based on historical changes in groundwater beneath the site, the planned 5,000 to 6,000 gallon per day of groundwater usage for the project, and reliability of the water source, the project is not expected to substantially deplete or lower the groundwater table around the site and is less than significant.

We estimate approximately 19.0 acres of the site will be graded and covered with gravel and DG surfacing based on the provided site plan overlain on Figure 2. Run-off and run-on to the site is expected to be controlled with engineered grading. The project is anticipated to include a storm water basin engineered to handle surface water runoff and will also provide recharge. Therefore, the project will not substantially deplete recharge and impact is less than significant.

**c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?**

The project will require an engineered grading plan to control surface water runoff and divert the runoff to an on-site stormwater pond. Based on the proposed sit plan, a majority of the site will be covered in DG or gravel and the remaining portion around the office is to be paved asphalt. Engineered grading to include gravel/DG surface cover will significantly impede erosion of surface soils on and off site.

The site is not crossed by any rivers, streams, canals, or irrigation ditches. The South Fork of the Persian Ditch is located 1,110-feet northwest of the site. Evans Ditch is located 1,180-feet southeast of the site.



These ditches direct surface water for irrigation of surrounding farmland. These surface water features are not expected to inundate the site under normal flow conditions throughout the year and their drainage pattern will not be altered due to the project and therefore is considered less than significant impact.

**d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

The surface topography of the site is relatively flat. Grading for the site is anticipated to include an engineered grading design approved and permitted by Tulare County. The final grading of the site should control the drainage pattern of the site to a stormwater retention pond. A majority of the site will be covered in DG or gravel and the remaining portion around the office is to be paved asphalt. Engineered grading to include gravel/DG surface cover will allow surface flow to be directed to an on-site retention pond. In addition, drainage around the surrounding area of the concrete batch plant will be conveyed to a collection point onsite for containment and recycling further controlling site surface water flow. Figure 2 shows possible locations of the stormwater basin and recycled water containment. Final locations for these two features will be based on a final engineered design prepared by a California licensed Civil Engineer and may be located at other locations other than shown.

Changes to the site drainage pattern will not impact the nearby Persian of Evans ditches and therefore will be no impact.

**e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

It is anticipated that a SWPPP will be prepared for the site and a stormwater basin will be constructed to have adequate capacity for a 50 year storm event. As such, no impacts are expected to occur.

**f) Otherwise substantially degrade water quality?**

It is anticipated that a General Stormwater Industrial Facility permit and SWPPP will be obtained for the site. If the current OWTS does not meet Tulare County LAMP requirements, a new OWTS will be constructed to meet the new requirements. It is anticipated that the facility will have infrastructure and activities such as truck washing, proper waste management for items such as used oil, vehicle wash area oil/water separators, sediment traps, and collection sumps. Implementation of these activities and features will ensure less than significant impact.

**g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

The proposed project will not contain housing, thus no impact.



**h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?**

Since the project is located within a 100 year flood zone and structures will be onsite, there is less than significant impact with mitigation. Structures such as piles of asphalt or concrete fragments, silos, equipment, shops, and/or offices will be onsite. Since the project is located within a 100 year flood zone, the site should be graded to control and direct flooding from a 100 year storm event around these structures. If grading controls are not completed, optional best management practices such as elevated berms or other engineered alternatives should be employed around the site to impede flooding onto the property. If engineered grading controls are completed, there will be no impact.

**i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?**

As indicated in the Tulare County General Plan Background Report, two major dams could cause substantial flooding in Tulare County in the event of a failure: Terminus Dam on Lake Kaweah and Success Dam on Lake Success, located approximately 24-miles and 31-miles east of the site, respectively. In addition, there are many smaller dams throughout the county that would cause localized flooding in the event of their failing. However, a comprehensive analysis of the potential for dam failure and possible downstream effects for these upstream dams has not been undertaken. The project lies within flood Zone A, which is a Special Flood Hazard Area with a 1.0 percent annual chance or a 100 year flood according to the FEMA flood zone designation.

The site is not located near a major dam or levee and no impact is expected to occur.

**j) Inundation by seiche, tsunami, or mudflow?**

The project site is not located by the ocean, near a lake shore, or in areas of steep slopes and is therefore no impact.



## V. LIMITATIONS

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of the responsible party and involved regulatory agencies, unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk and such parties have a duty to determine its adequacy for their intended use, time, and location.

The purpose of this study is to reasonably characterize existing geologic and/or hydrogeologic site conditions. No investigation can be thorough enough to describe all geologic/hydrogeologic conditions of interest at a given site. If conditions have not been identified during the study, such a finding should not therefore be construed as a guarantee of the absence of such conditions at the site, but rather as the result of the services performed within the scope, limitations, and cost of the work performed.

We are unable to report on or accurately predict events that may change the site conditions after the described services are performed, whether occurring naturally or caused by external forces. We assume no responsibility for conditions we were not authorized to evaluate, or conditions not generally recognized as predictable when services were performed. Geologic/hydrogeologic conditions may exist at the site that cannot be identified solely by visual observation. Where subsurface exploratory work is performed, our professional opinions are based in part on interpretation of data from discrete locations that may not represent actual conditions at other locations.

No assessment can eliminate uncertainty. This report was intended to reduce, but not eliminate this uncertainty, recognizing reasonable limits of time and cost. Subsurface variations cannot be known, nor entirely accounted for in spite of exhaustive testing. This report should not be regarded as a guarantee that no further recognized geological/hydrogeological conditions are present on or beneath the site beyond that which could have been detected within the scope of work.

The findings, conclusions, and recommendations rendered in this report are solely professional opinions based on information obtained during the assessment. Changes in existing conditions at the site due to time lapse, natural causes, or operations on adjoining properties may deem the conclusions and recommendations inappropriate. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services.

MGS does not warrant the accuracy of work performed or information supplied by others including any of its subcontractors or any segregated portions of this report. In performing our professional services, we have attempted to apply present engineering and scientific judgment and use a level of effort consistent with the standard of practice measured on the date of work and in the locale of the project site for similar type studies.



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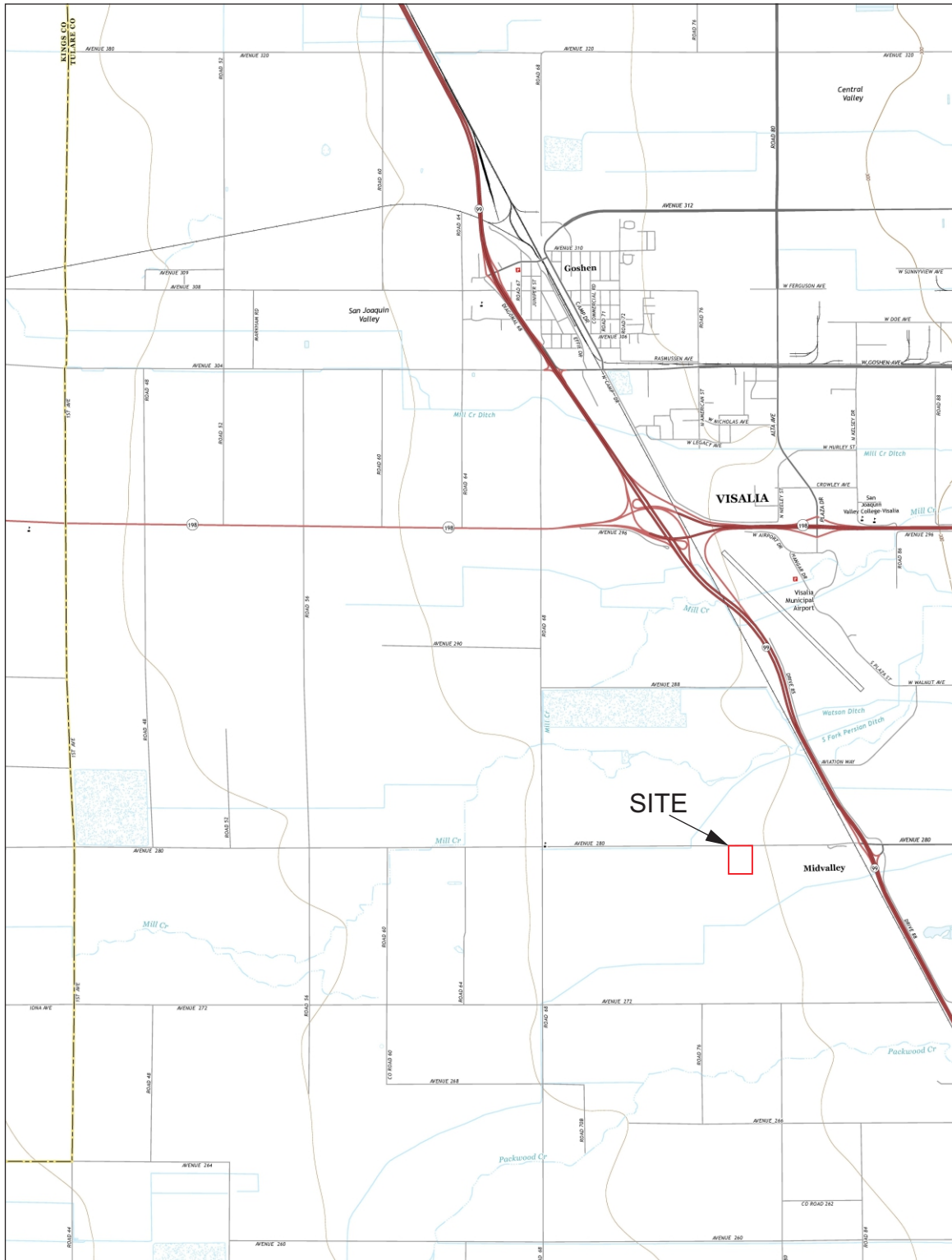
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# FIGURES





CONTOUR INTERVAL = 10 FEET

0' 5,280'  
1 INCH = 1 MILE



PO BOX 1020  
EXETER, CA  
93221  
(559) 936-3695



PROJECT:  
**HYDROLOGY AND  
WATER QUALITY REPORT**

CLIENT:  
DUNN'S CONSTRUCTION, INC.  
15602 AVENUE 196  
VISALIA, CA 93292

**VICINITY MAP**

REVISION LOG:

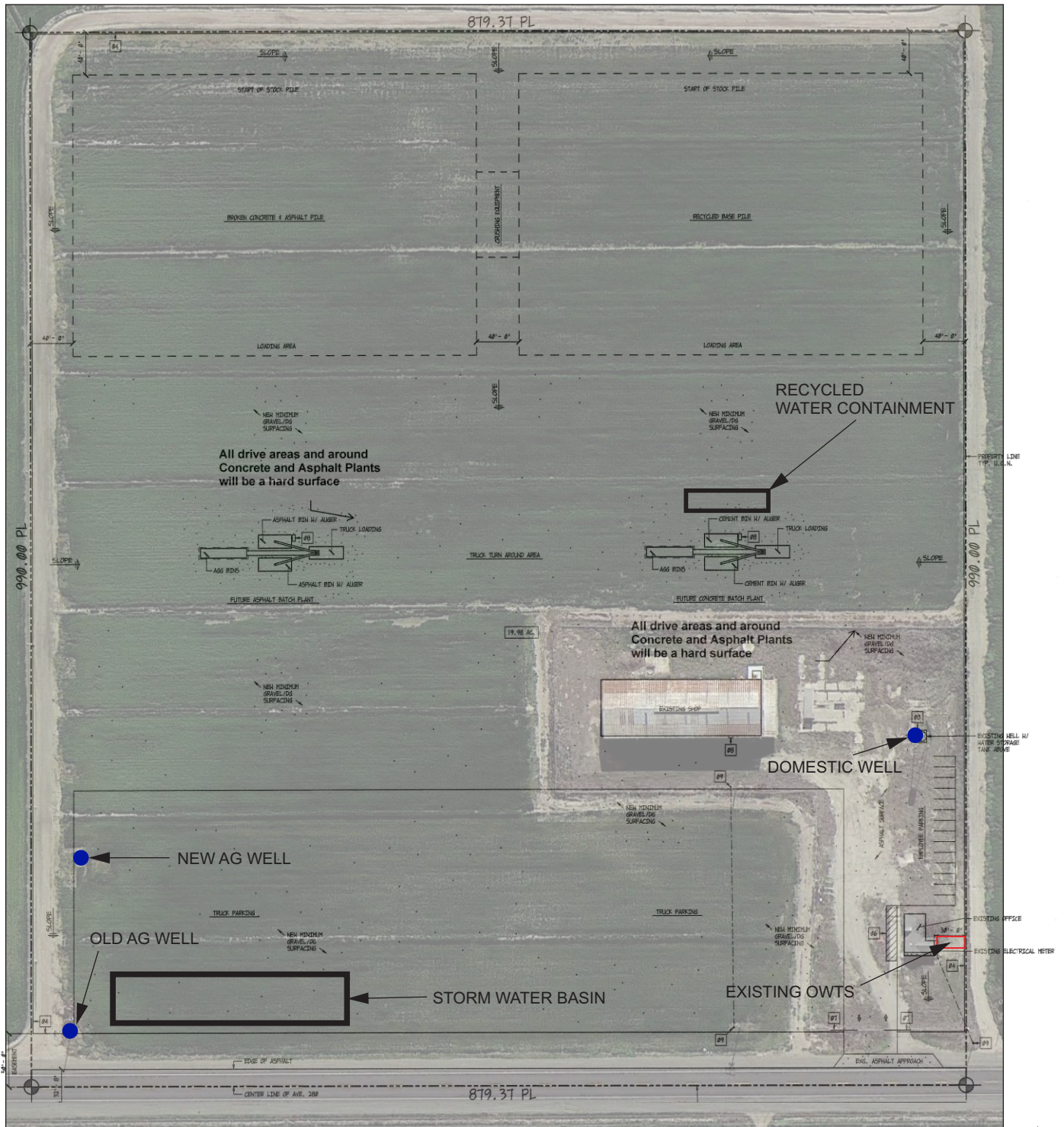
PLOT DATE: 09/27/2018

PROJECT NO: 18021

SCALE: AS SHOWN

SHEET NO.: FIGURE 1





0' 140'  
1 INCH = 140 FEET



PO BOX 1020  
EXETER, CA  
93221  
(559) 936-3695



PROJECT:  
**HYDROLOGY AND  
WATER QUALITY REPORT**

CLIENT:  
DUNN'S CONSTRUCTION, INC.  
15602 AVENUE 196  
VISALIA, CA 93292

# SITE PLAN

REVISION LOG:

PLOT DATE: 09/27/2018

PROJECT NO: 18021

SCALE: AS SHOWN

SHEET NO.: FIGURE 2



## **APPENDIX F**

### **TRAFFIC IMPACT STUDY**



## **APPENDIX F.1**

### **TRIP GENERATION**



**Table 3**  
**Annual Project Trip Generation**

Vehicle	Truck Axles	Capacity	Approx. Material per Year	Annual Trips		Average Weekday Trips*	
				Entering	Exiting	Entering	Exiting
Employee automobiles	n/a	n/a	n/a	4,680	4,680	15	15
Ready Mix Concrete Trucks	4	10 cubic yards (20 tons)	100,000 cubic yards (200,000 tons)	10,000	10,000	40	40
Aggregate Trucks (incoming sand and gravel for concrete)	≥5	25 tons	160,000 tons	6,400	6,400	26	26
Cement and Fly Ash Delivery Trucks	≥5	25 tons	28,000 tons	1,120	1,120	5	5
Recycled Base Trucks (sales)	≥5	25 tons	30,000 tons	1,200	1,200	5	5
Recycled Material End Dumps (Incoming material)	≥5	22 tons	22,500 tons	1,023	1,023	4	4
Recycled Material (Incoming material)	3	12 tons	7,500 tons	625	625	3	3
HMA Trucks	≥5	25 tons	150,000 tons	6,000	6,000	24	24
Aggregate Trucks (incoming sand and gravel for HMA)	≥5	25 tons	120,000 tons	4,800	4,800	19	19
Oil Delivery Trucks	≥5	7,500 gallons	1,664,335 gallons	222	222	1	1
Propane Delivery Trucks	≥5	11,000 gallons	450,000 gallons	41	41	0	0
Fuel Trucks (diesel for on-site vehicle operations)	≥5	-	-	26	26	0	0
Outside Services	2	-	-	250	250	1	1
Other Materials/Services	2	-	-	250	250	1	1
<b>TOTAL:</b>	-	-	-	<b>36,637</b>	<b>36,637</b>	<b>144</b>	<b>144</b>
Total 2-axle trucks:	-	-	-	500	500	2	2
Total 3-axle trucks:	-	-	-	625	625	3	3
Total 4-axle trucks:	-	-	-	10,000	10,000	40	40
Total 5-axle trucks:	-	-	-	20,832	20,832	84	84

\* Divided over 50 weeks per year and five days per week.



**Table 4**  
**Peak Hour Project Trip Generation - Maximum Production\***

Vehicle	A.M. Peak Hour		P.M. Peak Hour	
	Entering	Exiting	Entering	Exiting
Employee automobiles	0**	0**	2	10
Ready Mix Concrete Trucks	16	16	8	8
Aggregate Trucks (incoming sand and gravel for concrete)	10	10	0	5
Cement and Fly Ash Delivery Trucks	2	2	0	1
Recycled Base Trucks (sales)	2	2	1	1
Recycled Material End Dumps (Incoming material)	2	2	1	1
Recycled Material (Incoming material)	1	1	0	0
HMA Trucks	10	10	5	5
Aggregate Trucks (incoming sand and gravel for HMA)	8	8	0	4
Oil Delivery Trucks	0	0	0	0
Propane Delivery Trucks	0	0	0	0
Fuel Trucks (diesel for on-site vehicle operations)	0	0	0	0
Outside Services	1	1	0	0
Other Materials/Services	1	1	0	0
<b>TOTAL:</b>	<b>53</b>	<b>53</b>	<b>17</b>	<b>35</b>

\* Maximum trips per hour are estimated by multiplying the average weekday trips in Table 3 by two (to estimate a very busy day) and then assuming that 20 percent of the trips on that day occur during the a.m. peak hour and 10 percent of the trips on that day occur during the p.m. peak hour, with the exception that most deliveries to the site are not expected to occur late in the day.

\*\* Assumes employees arrive before 7:00 a.m.



**Table 5**  
**Peak Hour Project Trip Generation - Passenger Car Equivalents**

Vehicle	PCE	A.M. Peak Hour		P.M. Peak Hour	
		Entering	Exiting	Entering	Exiting
Employee automobiles	1.0	0	0	2	10
Ready Mix Concrete Trucks	2.0	32	32	16	16
Aggregate Trucks (incoming sand and gravel for concrete)	3.0	30	30	0	15
Cement Delivery Trucks	3.0	6	6	0	3
Recycled Base Trucks (sales)	3.0	6	6	3	3
Recycled Material End Dumps (Incoming material)	3.0	6	6	3	3
Recycled Material (Incoming material)	2.0	2	2	0	0
HMA Trucks	3.0	30	30	15	15
Aggregate Trucks (incoming sand and gravel for HMA)	3.0	24	24	0	12
Oil Delivery Trucks	3.0	0	0	0	0
Propane Delivery Trucks	3.0	0	0	0	0
Fuel Trucks (diesel for on-site vehicle operations)	3.0	0	0	0	0
Outside Services	1.5	2	2	0	0
Other Materials/Services	1.5	2	2	0	0
<b>TOTAL:</b>		<b>140</b>	<b>140</b>	<b>39</b>	<b>77</b>



## **APPENDIX F.2**

### **TRAFFIC IMPACT STUDY**



# **Traffic Impact Study**

## ***Proposed Concrete and Asphalt Batch Plant***

***Avenue 280 West of State Route 99  
Tulare County, California***

### ***Prepared For:***

4Creeks  
324 South Santa Fe Street, Suite A  
Visalia, California 93292

### ***Date:***

September 28, 2018

### ***Job No.:***

18-049.01



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**PETERS ENGINEERING GROUP**

A CALIFORNIA CORPORATION

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### **EXECUTIVE SUMMARY**

This report presents the results of a traffic impact study for the proposed concrete and asphalt batch plant in Tulare County, California. This analysis focuses on the anticipated effect of vehicle traffic resulting from the Project.

The Project consists of a concrete batch plant, recycling of concrete and asphalt, and a hot-mix asphalt batch plant. The Project site is located on the south side of Avenue 280 west of State Route (SR) 99 and east of Road 76 in Tulare County, California. The site is not within the Sphere of Influence of the City of Visalia, which generally extends to the Avenue 280 / SR 99 interchange.

The concrete batch plant is expected to produce 100,000 cubic yards of concrete per year. Aggregate, cement, and fly ash will be delivered to the site and ready-mix concrete will be delivered from the site. The concrete and asphalt recycling operation will consist of accepting broken concrete and asphalt from contractors. The concrete and asphalt will be crushed into recycled base; it is anticipated that 30,000 tons of recycled base will be produced per year and delivered from the site. The hot-mix asphalt (HMA) batch plant is expected to produce 125,000 tons of HMA per year. Aggregate, oil, and propane will be delivered to the site and HMA will be delivered from the site.

Site access will be provided via one main driveway connecting to the south side of Avenue 280 approximately 1,000 feet east of Road 76.

The study locations were determined based on the anticipated Project traffic distribution, the size of the Project, and the existing conditions in the vicinity of the Project site. The following locations are included in the study:

1. Avenue 280 / Road 68
2. Avenue 280 / SR 99 Southbound Ramps
3. Avenue 280 / Drive 85B / Drive 88
4. SR 99 Northbound Ramps / Drive 88

The study time periods include the weekday a.m. and p.m. peak hours determined between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. The peak hours are analyzed for the following conditions:

- Existing Conditions;
- Existing-Plus-Project Conditions; and
- Cumulative (Year 2040) Conditions With Project.

Generally-accepted traffic engineering principles and methods were employed to estimate the amount of traffic expected to be generated by the Project, to analyze the existing traffic conditions, and to analyze the traffic conditions projected to occur in the future.

The study intersections are currently operating at acceptable levels of service with adequate storage capacity for the calculated 95<sup>th</sup>-percentile queues.



## **EXECUTIVE SUMMARY (Continued)**

The proposed Project will cause a significant impact by decreasing the LOS at the intersection of Avenue 280 and the SR 99 southbound ramps to E during the a.m. peak hour.

Tulare County and the Tulare County Association of Governments have initiated an interchange reconstruction project at the SR 99 / Caldwell Avenue (Avenue 280) interchange that will mitigate the Project impact to a less than significant level. Caltrans is managing the project through a reimbursement agreement and plans to circulate a Draft Environmental Impact Report (DEIR) in October/November of 2018. The interchange reconstruction is programmed and has an identified funding source. The reconstruction is planned to be complete by 2024. The Project impact would remain significant and unavoidable until the interchange reconstruction is complete.

The study intersections are expected to operate at acceptable levels of service with the proposed Project and interchange reconstruction through the year 2040.

To mitigate its share of the impacts to the interchange, the Project may be responsible for an equitable share of any unfunded portions of the interchange project.





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Mr. Richard Walker  
4Creeks  
324 South Santa Fe Street, Suite A  
Visalia, California 93292

September 28, 2018

Subject: Traffic Impact Study  
Proposed Concrete and Asphalt Batch Plant  
South Side of Avenue 280 West of State Route 99  
Tulare County, California

Dear Mr. Walker:

## **1.0 INTRODUCTION**

This report presents the results of a traffic impact study for the proposed concrete and asphalt batch plant (hereinafter referred to as “the Project”) in Tulare County, California. This analysis focuses on the anticipated effect of vehicle traffic resulting from the Project.

## **2.0 PROJECT DESCRIPTION**

The Project consists of a concrete batch plant, recycling of concrete and asphalt, and a hot-mix asphalt batch plant. The Project site is located on the south side of Avenue 280 west of State Route (SR) 99 and east of Road 76 in Tulare County, California. The site is not within the Sphere of Influence of the City of Visalia, which generally extends to the Avenue 280 / SR 99 interchange.

The concrete batch plant is expected to produce 100,000 cubic yards of concrete per year. Aggregate, cement, and fly ash will be delivered to the site and ready-mix concrete will be delivered from the site.

The concrete and asphalt recycling operation will consist of accepting broken concrete and asphalt from contractors. The concrete and asphalt will be crushed into recycled base; it is anticipated that 30,000 tons of recycled base will be produced per year and delivered from the site.

The hot-mix asphalt (HMA) batch plant is expected to produce 125,000 tons of HMA per year. Aggregate, oil, and propane will be delivered to the site and HMA will be delivered from the site.

Site access will be provided via one main driveway connecting to the south side of Avenue 280 approximately 1,000 feet east of Road 76.

The location of the site is presented in the attached Figure 1, Site Vicinity Map, following the text of this report. A conceptual plot plan is presented in Figure 2, Site Plan.



### **3.0 STUDY AREA AND TIME PERIOD**

The study locations were determined based on the anticipated Project traffic distribution, the size of the Project, and the existing conditions in the vicinity of the Project site. The following locations are included in the study:

5. Avenue 280 / Road 68
6. Avenue 280 / SR 99 Southbound Ramps
7. Avenue 280 / Drive 85B / Drive 88
8. SR 99 Northbound Ramps / Drive 88

Avenue 280 is also known as Caldwell Avenue in the City of Visalia, immediately east of SR 99.

The study time periods include the weekday a.m. and p.m. peak hours determined between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. The peak hours are analyzed for the following conditions:

- Existing Conditions;
- Existing-Plus-Project Conditions; and
- Cumulative (Year 2040) Conditions With Project.

This report includes analysis of traffic signal warrants at each of the study intersections.

### **4.0 LEVEL OF SERVICE**

The Transportation Research Board *Highway Capacity Manual*, 2010, (HCM2010) defines level of service (LOS) as, “A quantitative stratification of a performance measure or measures that represent quality of service, measured on an A-F scale, with LOS A representing the best operating conditions from the traveler’s perspective and LOS F the worst.”

Automobile mode LOS characteristics for both unsignalized and signalized intersections are presented in Tables 1 and 2.

**Table 1**  
**Level of Service Characteristics for Unsignalized Intersections**

Level of Service	Average Vehicle Delay (seconds)
A	0-10
B	>10-15
C	>15-25
D	>25-35
E	>35-50
F	>50

Reference: *Highway Capacity Manual*, Transportation Research Board, 2010



**Table 2**  
**Level of Service Characteristics for Signalized Intersections**

<b>Level of Service</b>	<b>Description</b>	<b>Average Vehicle Delay (seconds)</b>
A	Volume-to-capacity ratio is low. Progression is exceptionally favorable or the cycle length is very short.	<10
B	Volume-to-capacity ratio is low. Progression is highly favorable or the cycle length is very short.	>10-20
C	Volume-to-capacity ratio is no greater than 1.0. Progression is favorable or cycle length is moderate.	>20-35
D	Volume-to-capacity ratio is high but no greater than 1.0. Progression is ineffective or cycle length is long. Many vehicles stop and individual cycle failures are noticeable.	>35-55
E	Volume-to-capacity ratio is high but no greater than 1.0. Progression is unfavorable and cycle length is long. Individual cycle failures are frequent.	>55-80
F	Volume-to-capacity ratio is greater than 1.0. Progression is very poor and cycle length is long. Most cycles fail to clear the queue.	>80

Reference: *Highway Capacity Manual*, Transportation Research Board, 2010

## **5.0 SIGNIFICANCE CRITERIA AND IMPACT ANALYSIS**

### **5.1 Policies**

Policy TC-1.15, Traffic Impact Study, presented in Chapter 13 of the 2030 Update of the Tulare County General Plan dated August 2012 (County General Plan) states: *“The County shall require an analysis of traffic impacts for land development projects that may generate increased traffic on County roads. Typically, applicants of projects generating over 100 peak hour trips per day or where LOS “D” or worse occurs, will be required to prepare and submit this study. The traffic impact study will include impacts from all vehicles, including truck traffic.”*

Policy TC-1.16, County Level Of Service (LOS) Standards, presented in the County General Plan states: *“The County shall strive to develop and manage its roadway system (both segments and intersections) to meet a LOS of “D” or better in accordance with the LOS definitions established by the Highway Capacity Manual.”*

The Caltrans *Guide for the Preparation of Traffic Impact Studies* dated December 2002 states the following: *“Caltrans endeavors to maintain a target LOS at the transition between LOS “C” and LOS “D” (see Appendix “C-3”) on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained.”*



## **5.2 Impact Analysis**

Traffic impacts will be analyzed based on level-of-service criteria at intersections, and based on queuing impacts for turn lanes and through lanes at signalized intersections. Impact analyses will be performed as follows:

1. Existing-Plus-Project conditions will be compared to the Existing conditions to determine Project impacts;
2. Cumulative Conditions with the Project (Year 2040) will be compared to the Existing conditions to determine long-term impacts for which the Project is partially responsible.

For purposes of this study, a significant traffic impact will be recognized if the Project will:

- decrease the LOS below D at an intersection;
- exacerbate the delay at an intersection already operating at a substandard LOS (i.e., LOS E or LOS F) by increasing the average delay by 5.0 seconds or more; or
- cause the LOS to drop from LOS E to LOS F.

## **6.0 EXISTING TRAFFIC VOLUMES**

Existing peak-hour traffic volumes at the study intersections were determined by performing turning-movement counts between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. on a weekday while school was in session. The counts included pedestrians, bicycles, and heavy vehicles. The existing peak-hour turning movement volumes are presented in Figure 3, Existing Peak-Hour Traffic Volumes.

Twenty-four-hour road segment traffic counts were performed on all approaches to the intersections for purposes of traffic signal warrants analyses.

The traffic count data sheets are presented in Appendix A and indicate the dates the counts were performed.

## **7.0 LANE CONFIGURATIONS AND INTERSECTION CONTROL**

The existing lane configurations and intersection control at the study locations are presented in Figure 4, Existing Lane Configurations and Intersection Control.

The intersection of Drive 88 and the SR 99 northbound ramps is skewed; for purposes of the analyses presented in this report the approaches are designated as follows:

- The eastbound approach consists of the northbound off ramp from SR 99 approaching the intersection;
- The westbound approach consists of vehicles leaving Avenue 280 and traveling southwesterly toward the intersection;
- The northbound approach consists of vehicles traveling northwesterly on Drive 88.

Tulare County and the Tulare County Association of Governments have initiated an interchange reconstruction project at the SR 99 / Caldwell Avenue (Avenue 280) interchange.



Caltrans is managing the project through a reimbursement agreement and plans to circulate a Draft Environmental Impact Report (DEIR) in October/November of 2018. The interchange reconstruction is programmed and has an identified funding source. The reconstruction is planned to be complete by 2024. The reconstruction is expected to include the following:

- ramps connecting directly to Caldwell Avenue at signalized intersections
- additional eastbound and westbound through lanes at the southbound ramps
- loop ramp from eastbound Caldwell Avenue to northbound SR 99
- Drive 85B north of Caldwell Avenue will be realigned to the east.

## **8.0 PROJECT TRIP GENERATION**

Data provided in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10<sup>th</sup> Edition*, are typically used to estimate the number of trips anticipated to be generated by proposed projects. However, ITE does not present information for concrete batch plants, hot-mix asphalt plants, or production of recycled base. Therefore, the Project trip generation must be estimated based on the volume of material to be hauled and other Project-specific characteristics.

Table 3 presents the various types of vehicles expected to access the Project site. The type of material to be hauled, the vehicle capacity, the annual number of trips, and the average weekday trips are also presented.

Table 4 presents estimates of the maximum peak hour trips estimated to be generated by the Project.

Passenger car equivalents (PCE) represent the number of passenger cars displaced by a single heavy vehicle (vehicles with more than four wheels touching the pavement during normal operations) under certain roadway, traffic, and control conditions. The use of PCEs compensates for the operational characteristics of heavy vehicles (e.g., slower acceleration and deceleration than passenger vehicles) as well as the roadway space displaced. The Transportation Research Board *Highway Capacity Manual, 6<sup>th</sup> Edition*, identifies a PCE factor of 2.0 for a default mix of trucks in level terrain on highway segments. A greater PCE factor is reasonable for 25-ton capacity trucks because these trucks are long, heavy, accelerate more slowly, and require more distance to decelerate. For purposes of peak hour operations, a PCE of 3.0 is applied for the 25-ton capacity trucks, a PCE of 2.0 is applied for ready-mix trucks and three-axle trucks, and a PCE of 1.5 is applied for two-axle trucks. Table 5 presents a summary of the peak hour Project trips in terms of PCE.

Pass-by trips and internal capture reductions are negligible for this type of project and are not applied to the Project trip generation.



**Table 3**  
**Annual Project Trip Generation**

Vehicle	Truck Axles	Capacity	Approx. Material per Year	Annual Trips		Average Weekday Trips*	
				Entering	Exiting	Entering	Exiting
Employee automobiles	n/a	n/a	n/a	2,500	2,500	10	10
Ready Mix Concrete Trucks	4	10 cubic yards	100,000 cubic yards	10,000	10,000	40	40
Aggregate Trucks (incoming sand and gravel for concrete)	≥5	25 tons	160,000 tons	6,400	6,400	26	26
Cement Delivery Trucks	≥5	25 tons	30,000 tons	1,200	1,200	5	5
Recycled Base Trucks (sales)	≥5	25 tons	30,000 tons	1,200	1,200	5	5
Recycled Material End Dumps (Incoming material)	≥5	22 tons	22,500 tons	1,023	1,023	4	4
Recycled Material (Incoming material)	3	12 tons	7,500 tons	625	625	3	3
HMA Trucks	≥5	25 tons	125,000 tons	5,000	5,000	20	20
Aggregate Trucks (incoming sand and gravel for HMA)	≥5	25 tons	125,000 tons	5,000	5,000	20	20
Oil Delivery Trucks	≥5	-	-	250	250	1	1
Propane Delivery Trucks	≥5	-	-	350	350	2	2
Fuel Trucks (diesel for on-site vehicle operations)	≥5	-	-	26	26	0	0
Outside Services	2	-	-	250	250	1	1
Other Materials/Services	2	-	-	250	250	1	1
<b>TOTAL:</b>	-	-	-	<b>33,606</b>	<b>33,606</b>	<b>138</b>	<b>138</b>
Total 2-axle trucks:	-	-	-	500	500	2	2
Total 3-axle trucks:	-	-	-	625	625	3	3
Total 4-axle trucks:	-	-	-	10,000	10,000	40	40
Total 5-axle trucks:	-	-	-	20,606	20,606	83	83

\* Divided over 50 weeks per year and five days per week.



**Table 4**  
**Peak Hour Project Trip Generation - Maximum Production\***

Vehicle	A.M. Peak Hour		P.M. Peak Hour	
	Entering	Exiting	Entering	Exiting
Employee automobiles	0**	0**	2	10
Ready Mix Concrete Trucks	16	16	8	8
Aggregate Trucks (incoming sand and gravel for concrete)	10	10	0	5
Cement Delivery Trucks	2	2	0	1
Recycled Base Trucks (sales)	2	2	1	1
Recycled Material End Dumps (Incoming material)	2	2	1	1
Recycled Material (Incoming material)	1	1	0	0
HMA Trucks	8	8	4	4
Aggregate Trucks (incoming sand and gravel for HMA)	8	8	0	4
Oil Delivery Trucks	1	1	0	0
Propane Delivery Trucks	1	1	0	0
Fuel Trucks (diesel for on-site vehicle operations)	0	0	0	0
Outside Services	1	1	0	0
Other Materials/Services	1	1	0	0
<b>TOTAL:</b>	<b>53</b>	<b>53</b>	<b>16</b>	<b>34</b>

\* Maximum trips per hour are estimated by multiplying the average weekday trips in Table 3 by two (to estimate a very busy day) and then assuming that 20 percent of the trips on that day occur during the a.m. peak hour and 10 percent of the trips on that day occur during the p.m. peak hour, with the exception that most deliveries to the site are not expected to occur late in the day.

\*\* Assumes employees arrive before 7:00 a.m.



**Table 5**  
**Peak Hour Project Trip Generation - Passenger Car Equivalents**

Vehicle	PCE	A.M. Peak Hour		P.M. Peak Hour	
		Entering	Exiting	Entering	Exiting
Employee automobiles	1.0	0	0	2	10
Ready Mix Concrete Trucks	2.0	32	32	16	16
Aggregate Trucks (incoming sand and gravel for concrete)	3.0	30	30	0	15
Cement Delivery Trucks	3.0	6	6	0	3
Recycled Base Trucks (sales)	3.0	6	6	3	3
Recycled Material End Dumps (Incoming material)	3.0	6	6	3	3
Recycled Material (Incoming material)	2.0	2	2	0	0
HMA Trucks	3.0	24	24	12	12
Aggregate Trucks (incoming sand and gravel for HMA)	3.0	24	24	0	12
Oil Delivery Trucks	3.0	3	3	0	0
Propane Delivery Trucks	3.0	3	3	0	0
Fuel Trucks (diesel for on-site vehicle operations)	3.0	0	0	0	0
Outside Services	1.5	2	2	0	0
Other Materials/Services	1.5	2	2	0	0
<b>TOTAL:</b>		<b>140</b>	<b>140</b>	<b>36</b>	<b>74</b>

## **9.0 PROJECT TRIP DISTRIBUTION AND ASSIGNMENT**

The distribution of Project trips was estimated based on the locations of complementary land uses, available routes, and engineering judgment. The percentage distribution of Project trips is presented in the attached Figure 5, Project Trip Distribution Percentages. The peak-hour Project traffic volumes presented in Table 5 were assigned to the adjacent road network in accordance with the trip distribution percentages described above. The peak-hour Project traffic volumes are presented in Figure 6, A.M. and P.M. Peak Hour Project Traffic Volumes. The peak-hour Project traffic volumes in terms of PCE are presented in Figure 7, A.M. and P.M. Peak Hour Project Traffic Volumes – Passenger Car Equivalents.

## **10.0 EXISTING-PLUS-PROJECT TRAFFIC VOLUMES**

The existing-plus-Project peak-hour turning movement volumes are presented in Figure 8, Existing-Plus-Project Peak-Hour Traffic Volumes. The existing-plus-Project peak-hour turning movement volumes in terms of passenger car equivalents for Project trips are presented in Figure 9, Existing-Plus-Project Peak-Hour Traffic Volumes – Passenger Car Equivalents.



## **11.0 CUMULATIVE YEAR 2040 TRAFFIC VOLUMES**

The Tulare County Association of Governments (TCAG) maintains a travel model that is typically used to forecast future traffic volumes. An increment method was utilized to forecast traffic volumes for future conditions by determining the growth projected by the model between the base year and the analysis year. This growth is added to the existing traffic volumes and the result is the predicted future traffic volume on the road segment. The TCAG travel model data output is included in the attached Appendix B. In some cases, the travel model may project growth that is equivalent to less than one percent per year. For purposes of this study, a minimum annual growth rate of one percent was maintained for traffic traveling west of SR 99. Traffic expected to be generated by the Sequoia Gateway Commerce Park (SGCP) project east of SR 99 was obtained from the SGCP DEIR and included in the cumulative traffic volume projections.

Future turning movements forecasts were based on the methods presented in Chapter 8 of the Transportation Research Board National Cooperative Highway Research Program Report 255 entitled “*Highway Traffic Data for Urbanized Area Project Planning and Design.*”

The cumulative year 2040 traffic volumes with the Project are presented in Figure 10, Year 2040 Cumulative With-Project Peak-Hour Traffic Volumes. The cumulative year 2040 traffic volumes with the Project PCE volumes are presented in Figure 11, Year 2040 Cumulative With-Project Peak-Hour Traffic Volumes – Passenger Car Equivalents.

## **12.0 INTERSECTION ANALYSES**

### **12.1 Operational Analyses**

The levels of service at the study intersections were determined using the computer program Synchro 9, which is based on the *Highway Capacity Manual* procedures for calculating levels of service. The intersection analysis sheets are included in the attached Appendix C.

Tables 6 through 8 present the results of the intersection analyses. Delays and levels of service worse than the target LOS are indicated in bold type.

**Table 6**  
**Intersection LOS Summary – Existing Conditions**

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Ave 280 / Rd 68	All-way stop	8.7	A	8.4	A
Ave 280 / SR 99 SB	One-way stop	21.7	C	20.0	C
Ave 280 / Dr 85B / Dr 88	All-way stop	13.5	B	11.5	B
SR 99 NB / Dr 88	One-way stop	12.7	B	11.4	B



**Table 7**  
**Intersection LOS Summary – Existing-Plus-Project Conditions**

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Ave 280 / Rd 68	All-way stop	9.0	A	8.5	A
Ave 280 / SR 99 SB	One-way stop	36.5	E	24.0	C
Ave 280 / Dr 85B / Dr 88	All-way stop	18.1	C	12.4	B
SR 99 NB / Dr 88	One-way stop	14.5	B	11.8	B

**Table 8**  
**Intersection LOS Summary – Cumulative 2040 With-Project Conditions**

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Ave 280 / Rd 68	All-way stop	11.2	B	9.9	A
Ave 280 / SR 99 SB	Signals	19.2	B	24.3	C
Ave 280 / SR 99 NB	Signals	10.3	B	26.7	C

## 12.2 Queuing Analyses

The results of the intersection operational analyses include estimates of the 95<sup>th</sup>-percentile queue lengths at the study intersections. The existing storage capacity and the calculated 95<sup>th</sup>-percentile queue lengths are presented in Tables 9 through 11.

**Table 9**  
**Intersection Queuing Summary – Existing Conditions**

Intersection		Storage and Queue Length (feet)											
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ave 280 / Rd 68	Storage	S	*	S	S	*	S	S	*	S	S	*	S
	A.M.		13			25			13			13	
	P.M.		13			15			10			10	
Ave 280 / SR 99 SB	Storage	DNE	*	S	S	600	DNE	DNE	DNE	DNE	S	*	S
	A.M.		DNS			10						50	
	P.M.		DNS			8						65	
Ave 280 / Dr 88 / Dr 85B	Storage	S	650	S	S	*	S	S	200	25	S	*	40
	A.M.		63			95			28	23		0	3
	P.M.		65			53			10	20		3	3
SR 99 NB / Dr 88	Storage	DNE	875	S	S	220	DNE	*	DNE	S	DNE	DNE	DNE
	A.M.		DNS			5		15					
	P.M.		DNS			3		15					

All lengths are reported in feet.

S = Shared with adjacent lane      DNE = Does not exist      Does not stop

\*      Nearest major intersection is greater than 1,000 feet away.



**Table 10**  
**Intersection Queuing Summary – Existing-Plus-Project Conditions**

Intersection		Storage and Queue Length (feet)											
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ave 280 / Rd 68	Storage	S	*	S	S	*	S	S	*	S	S	*	S
	A.M.		15			30			13			13	
	P.M.		15			18			10			10	
Ave 280 / SR 99 SB	Storage	DNE	*	S	S	600	DNE	DNE	DNE	DNE	S	*	S
	A.M.		DNS			13						110	
	P.M.		DNS			8						83	
Ave 280 / Dr 88 / Dr 85B	Storage	S	650	S	S	*	S	S	200	25	S	*	40
	A.M.		118			138			60	25		0	3
	P.M.		80			58			13	20		3	3
SR 99 NB / Dr 88	Storage	DNE	875	S	S	220	DNE	*	DNE	S	DNE	DNE	DNE
	A.M.		DNS			5		20					
	P.M.		DNS			3		15					

All lengths are reported in feet.

S = Shared with adjacent lane      DNE = Does not exist      Does not stop

\*    Nearest major intersection is greater than 1,000 feet away.

**Table 11**  
**Intersection Queuing Summary – Cumulative 2040 With-Project Conditions**

Intersection		Storage and Queue Length (feet)											
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ave 280 / Rd 68	Storage	S	*	S	S	*	S	S	*	S	S	*	S
	A.M.		33			60			28			23	
	P.M.		28			38			15			15	
Ave 280 / SR 99 SB	A.M.		245		217	79					276	246	
	P.M.		264		319	109					444	434	
Ave 280 / SR 99 NB	A.M.		183	34		154	43		156	127			
	P.M.		421	42		282	98		354	353			

All lengths are reported in feet.

S = Shared with adjacent lane

\*    Nearest major intersection is greater than 1,000 feet away.

### **12.3 Traffic Signal Volume Warrants**

The California State Transportation Agency and California Department of Transportation *California Manual on Uniform Traffic Control Devices, 2014 Edition (Revision 3 dated March 9, 2018)* (CMUTCD) presents various criteria (warrants) for determining the need for traffic signals. The CMUTCD states that an engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location.



The CMUTCD provides the following warrants to investigate the need for a traffic control signal, as applicable:

- Warrant 1, Eight-Hour Vehicular Volume.
- Warrant 2, Four-Hour Vehicular Volume.
- Warrant 3, Peak Hour.
- Warrant 4, Pedestrian Volume.
- Warrant 5, School Crossing.
- Warrant 6, Coordinated Signal System.
- Warrant 7, Crash Experience.
- Warrant 8, Roadway Network.
- Warrant 9, Intersection Near a Grade Crossing

If one or more of the signal warrants is met, signalization of the intersection may be appropriate. However, a signal should not be installed if none or few of the warrants are met since the installation of signals may increase delays on the previously-uncontrolled major street and may contribute to an increase in accidents.

The installation of a traffic signal can serve as a mitigation measure when a significant impact is identified at an unsignalized intersection and traffic signal warrants are satisfied. If warrants are not satisfied, traffic signals would not be considered as a feasible mitigation measure.

This report includes analysis of traffic signal volume warrants at four intersections. The warrant analysis focused on Warrants 1, 2, and 3; the warrant worksheets are presented in Appendix D. The traffic counts revealed no significant pedestrian volumes; therefore, by inspection Warrant 4 is not met and warrant worksheets are not presented for Warrant 4.

Table 12 summarizes the traffic signal warrants studies.

**Table 12**  
**Traffic Signal Warrants Summary – Existing Conditions**

Intersection	Warrant 1	Warrant 2	Warrant 3	Warrant 4
Ave 280 / Rd 68	Not Met	Not Met	Not Met	Not Met
Ave 280 / SR 99 SB	Not Met	Not Met	Not Met	Not Met
Ave 280 / Dr 85B / Dr 88	Met	Met	Met	Not Met
SR 99 NB / Dr 88	Not Met	Not Met	Not Met	Not Met

The results of the warrants analyses indicate that the intersection of Avenue 280, Drive 85, and Drive 88 is currently a candidate for signalization based on single-lane approaches. If Avenue 280 is widened such that there are two lanes on the eastbound and westbound approaches, traffic signals are not yet warranted. Traffic signals are not expected to be justified at the other study intersections based on the existing conditions.



## **13.0 DISCUSSION**

### **13.1 Existing Conditions**

The intersection analyses indicate that the study intersections are currently operating at acceptable levels of service with adequate storage capacity for the calculated 95<sup>th</sup>-percentile queues.

### **13.2 Existing-Plus-Project Conditions**

The existing-plus-Project conditions analyses represent conditions that would occur after construction of the Project in the absence of other pending projects and regional growth. This scenario isolates the specific impacts of the Project.

The results of the analyses indicate the Project would cause the intersection of Avenue 280 and the SR 99 southbound ramps to operate at LOS E during the a.m. peak hour. This is a significant impact. Interchange reconstruction is in the design phase and is programmed with an identified funding source. The pending reconstruction is expected to mitigate the significant impact. With implementation of the interchange reconstruction the intersection would operate at acceptable levels of service. Tables 13 and 14 present the results of mitigated analyses. The mitigated intersection analysis sheets are included in Appendix E. It is noted that the impact will remain significant and unavoidable until the interchange reconstruction is complete in approximately 2024.

The other study intersections will continue to operate at acceptable levels of service with adequate storage capacity for the calculated 95<sup>th</sup>-percentile queues.

**Table 13**  
**Mitigated Intersection LOS Summary – Existing-Plus-Project Conditions**

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Ave 280 / SR 99 SB	Signals	9.1	A	9.0	A

**Table 14**  
**Intersection Queuing Summary – Existing-Plus-Project Conditions**

Intersection		Storage and Queue Length (feet)											
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Ave 280 / SR 99 SB	A.M.		55		35	27					61	34	
	P.M.		45		26	14					56	53	

All lengths are reported in feet.

### **13.3 Cumulative Year 2040 With-Project Conditions**

The year 2040 with-Project conditions analyses include the assumption that the Project site is developed with the proposed Project and that reconstruction of the SR 99 / Caldwell Avenue (Avenue 280) interchange has been completed. This scenario estimates the long-term cumulative impacts. The Project may be responsible for an equitable share of the interchange



improvements if the interchange is not fully funded considering the significant impacts identified in the existing-plus-Project scenario.

The study intersections are expected to operate at acceptable levels of service with the proposed Project and interchange reconstruction through the year 2040.

#### **14.0 EQUITABLE SHARE CALCULATIONS**

Where required cumulative mitigation measures are not included in a traffic impact fee to be paid by the Project, the Project's financial responsibility for the mitigation measures can be determined based on equitable share calculations. Caltrans recommends the following equation as presented in the Caltrans *Guide for the Preparation of Traffic Impact Studies* to determine a project's equitable share of the cost of improvements to State facilities:

$$P = \frac{T}{T_B - T_E}$$

where:

P = The equitable share of the Project's traffic impact;

T = The Project trips generated during the peak hour of the adjacent State Highway facility;

T<sub>B</sub> = The forecasted (2040 cumulative with project) traffic volume on the impacted State highway facility;

T<sub>E</sub> = The existing traffic on the State Highway facility plus approved projects traffic.

It is anticipated that construction costs and interchange volumes to be presented in SR 99 / Caldwell Avenue interchange reconstruction DEIR will be utilized by Caltrans to develop equitable share calculations resulting in a per-trip fee that may be applied equitably to all development projects contributing trips to the interchange. Table 15 presents the volume of trips expected to be generated by the proposed Project at the interchange.



**Table 15**  
**Project Trip Trace Values – SR 99 / Caldwell Avenue Interchange**

<b>Movement</b>	<b>A.M. Peak Hour Volume</b>	<b>P.M. Peak Hour Volume</b>
EB Caldwell to NB 99	19	12
EB Caldwell past 99	11	7
EB Caldwell to SB 99	19	12
WB Caldwell to NB 99	0	0
EB Caldwell past 99	11	3
WB Caldwell to SB 99	0	0
SB 99 to EB Caldwell	0	0
SB 99 to WB Caldwell	19	5
NB 99 to EB Caldwell	0	0
NB 99 to WB Caldwell	19	6

## **15.0 CONCLUSIONS**

Generally-accepted traffic engineering principles and methods were employed to estimate the amount of traffic expected to be generated by the Project, to analyze the existing traffic conditions, and to analyze the traffic conditions projected to occur in the future.

The study intersections are currently operating at acceptable levels of service with adequate storage capacity for the calculated 95<sup>th</sup>-percentile queues.

The proposed Project will cause a significant impact by decreasing the LOS at the intersection of Avenue 280 and the SR 99 southbound ramps to E during the a.m. peak hour.

Tulare County and the Tulare County Association of Governments have initiated an interchange reconstruction project at the SR 99 / Caldwell Avenue (Avenue 280) interchange that will mitigate the Project impact to a less than significant level. Caltrans is managing the project through a reimbursement agreement and plans to circulate a Draft Environmental Impact Report (DEIR) in October/November of 2018. The interchange reconstruction is programmed and has an identified funding source. The reconstruction is planned to be complete by 2024. The impact would remain significant and unavoidable until the interchange reconstruction is complete.

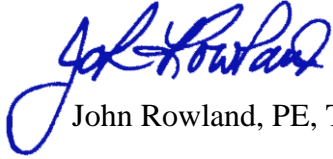
The study intersections are expected to operate at acceptable levels of service with the proposed Project and interchange reconstruction through the year 2040.

To mitigate its share of the impacts to the interchange, the Project may be responsible for an equitable share of any unfunded portions of the interchange project.



Thank you for the opportunity to perform this traffic impact study. Please feel free to contact our office if you have any questions.

## PETERS ENGINEERING GROUP



John Rowland, PE, TE



Attachments: Figures 1 through 11

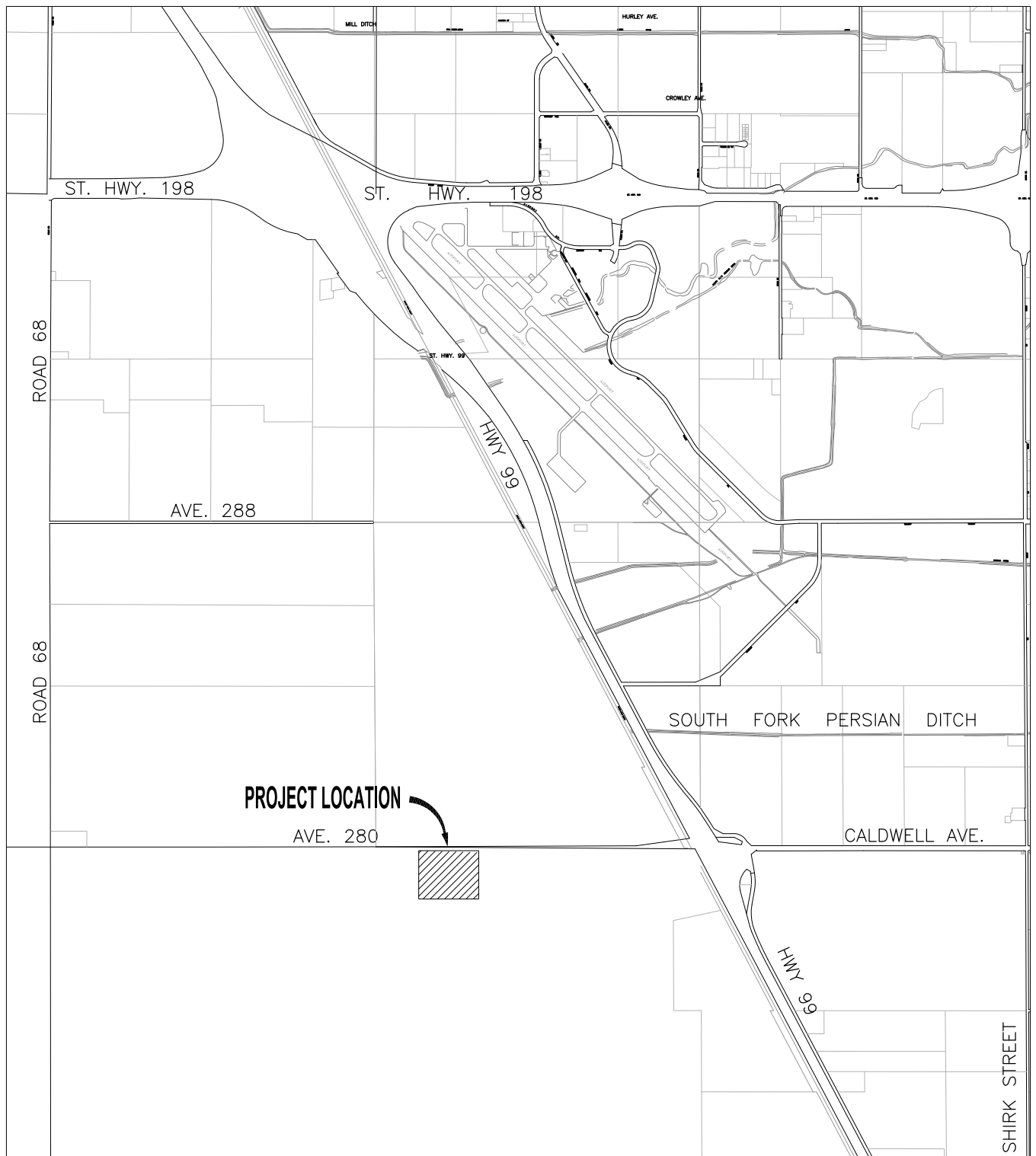
- Appendix A - Traffic Count Data Sheets
- Appendix B - Tulare County Travel Model
- Appendix C - Intersection Analysis Sheets
- Appendix D – Traffic Signal Warrants Worksheets
- Appendix E - Mitigated Intersection Analysis Sheets



## FIGURES







Proposed Concrete and Asphalt Batch Plant  
Tulare County, California

#### LEGEND

 PROJECT SITE

#### VICINITY MAP



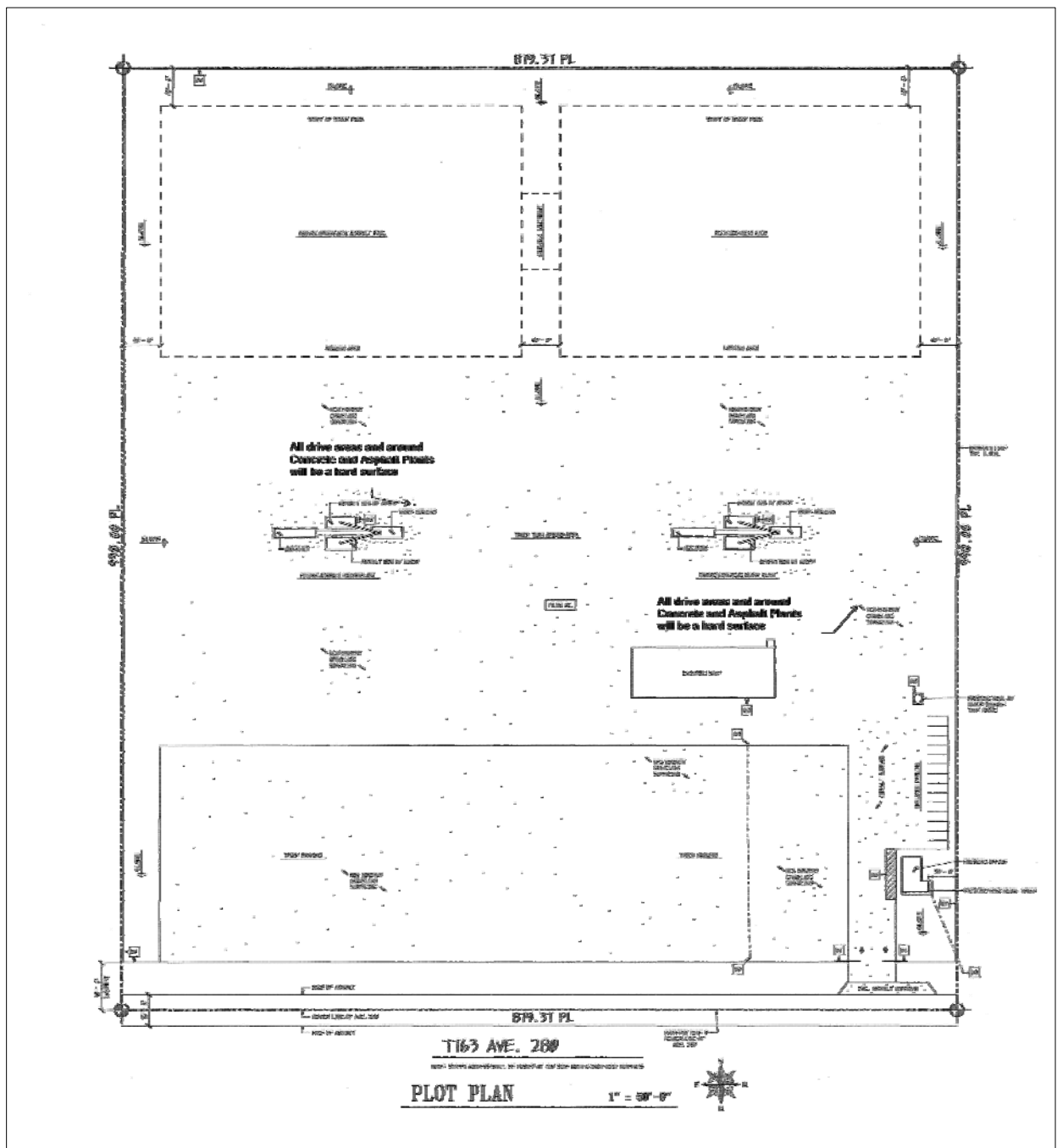
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Figure 1

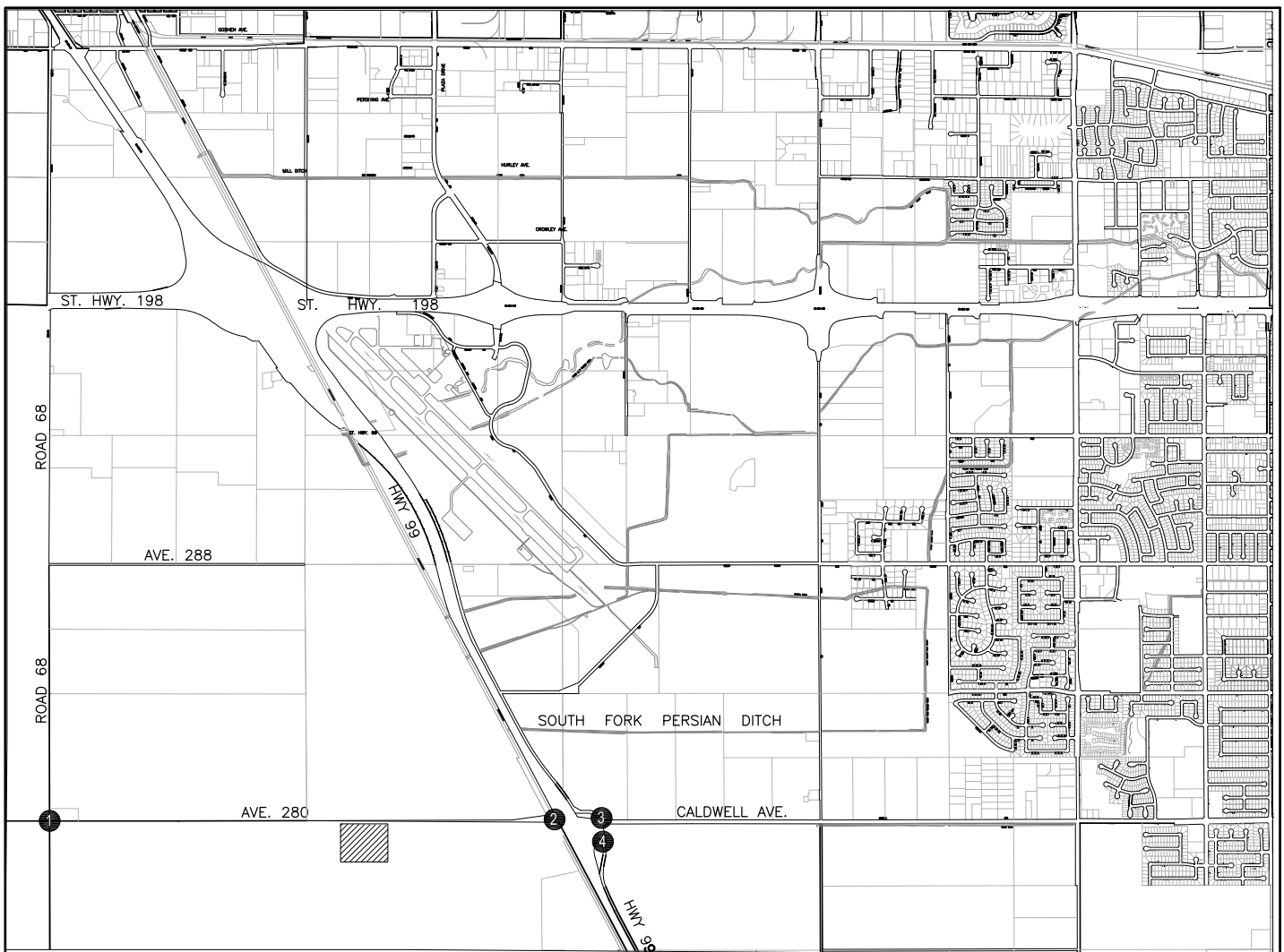




Proposed Concrete and Asphalt Batch Plant  
Tulare County, California

SITE PLAN





<p><b>1</b></p> <p>Ave 280 / Rd 68</p> <p>             6(5) →              28(38) →              51(31) →              77(13) ←              45(84) ←              27(9) ←              7(18) →              51(62) →              25(22) →              17(12) ←              39(22) ←              44(36) ←           </p>	<p><b>2</b></p> <p>Ave 280 / SR-99 SB</p> <p>             26(6) →              2(4) →              118(83) →              170(101) ←              127(101) ←              148(135) →              32(35) →           </p>	<p><b>3</b></p> <p>Ave 280 / Rd85b/Rd88</p> <p>             13(24) →              4(10) →              1(1) →              2(1) →              220(135) →              147(113) →              11(5) →              159(276) →              96(42) →              62(48) ←              14(7) ←              83(119) ←           </p>	<p><b>4</b></p> <p>SR-99 NB / Rd 88</p> <p>             168(115) ←              75(50) ←              121(132) →              15(23) →              42(45) ←              38(38) ←           </p>
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### LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

Proposed Concrete and Asphalt Batch Plant  
Tulare County, California

## EXISTING PEAK-HOUR TRAFFIC VOLUMES

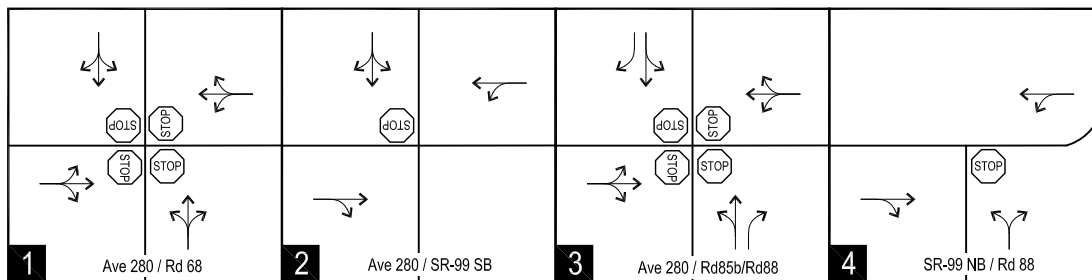
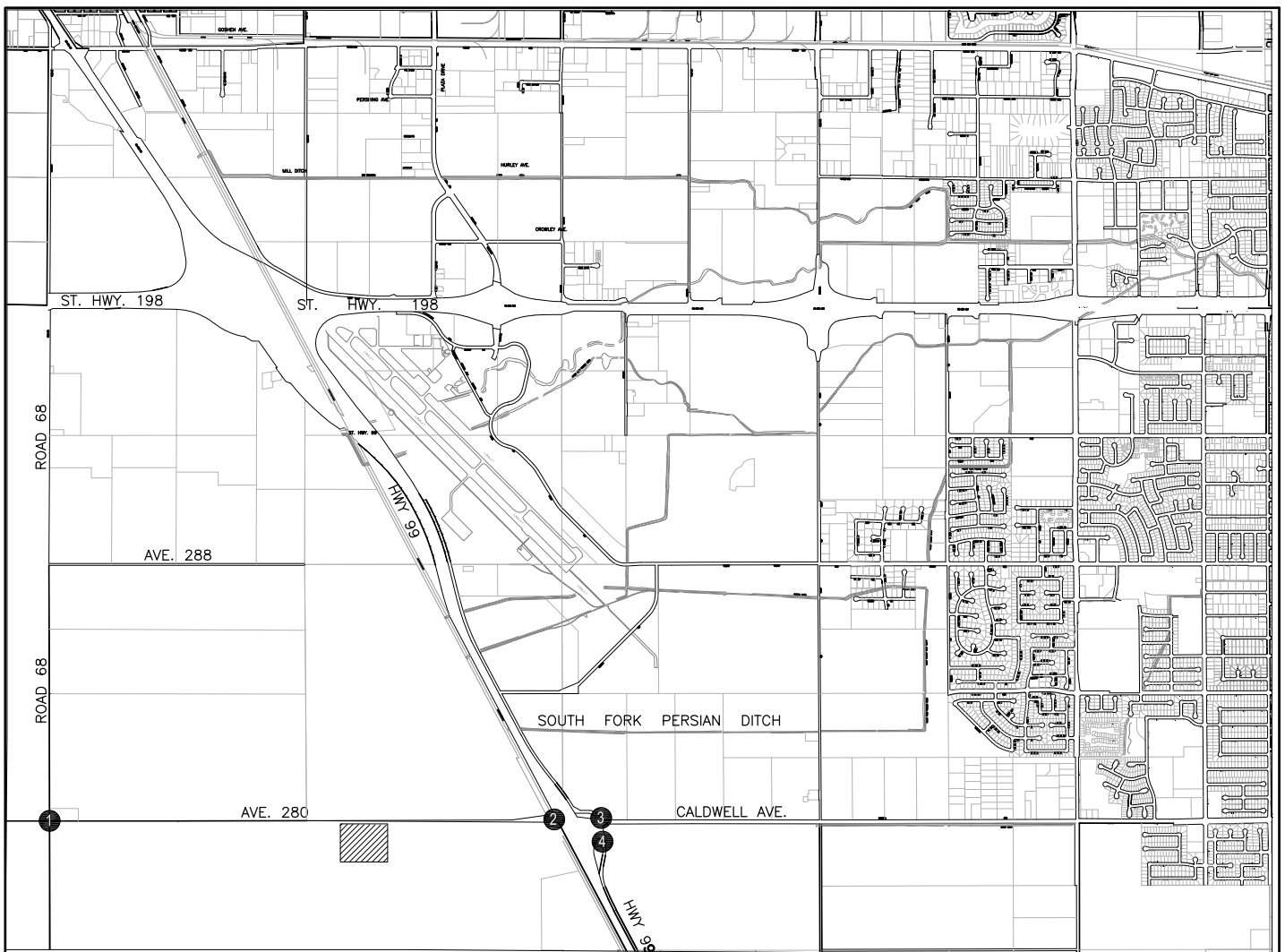


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Figure 3





Proposed Concrete and Asphalt Batch Plant  
Tulare County, California

#### LEGEND

- STUDY AREA INTERSECTIONS
- PROJECT SITE
- SIGNALIZED INTERSECTION
- STOP SIGN
- DIRECTION OF TRAVEL

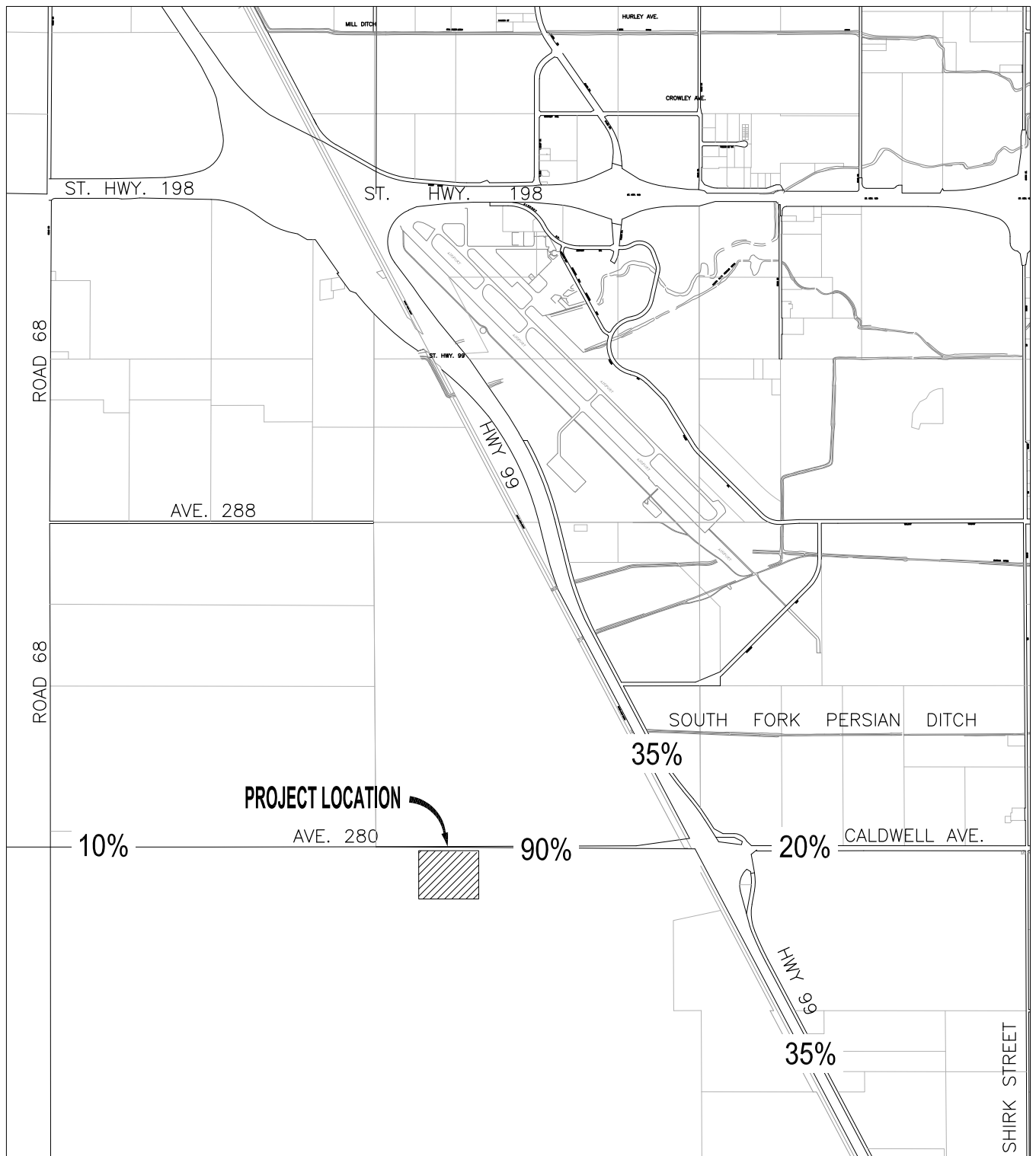
### EXISTING LANE CONFIGURATIONS AND INTERSECTION CONTROL



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Figure 4



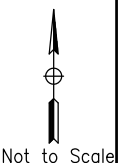


Proposed Concrete and Asphalt Batch Plant  
Tulare County, California

#### LEGEND

 PROJECT SITE

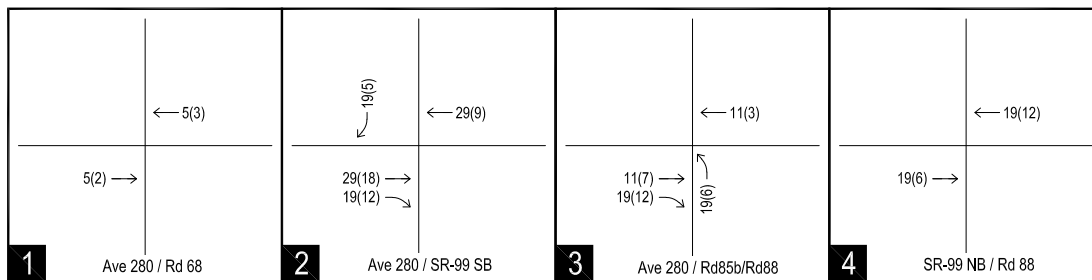
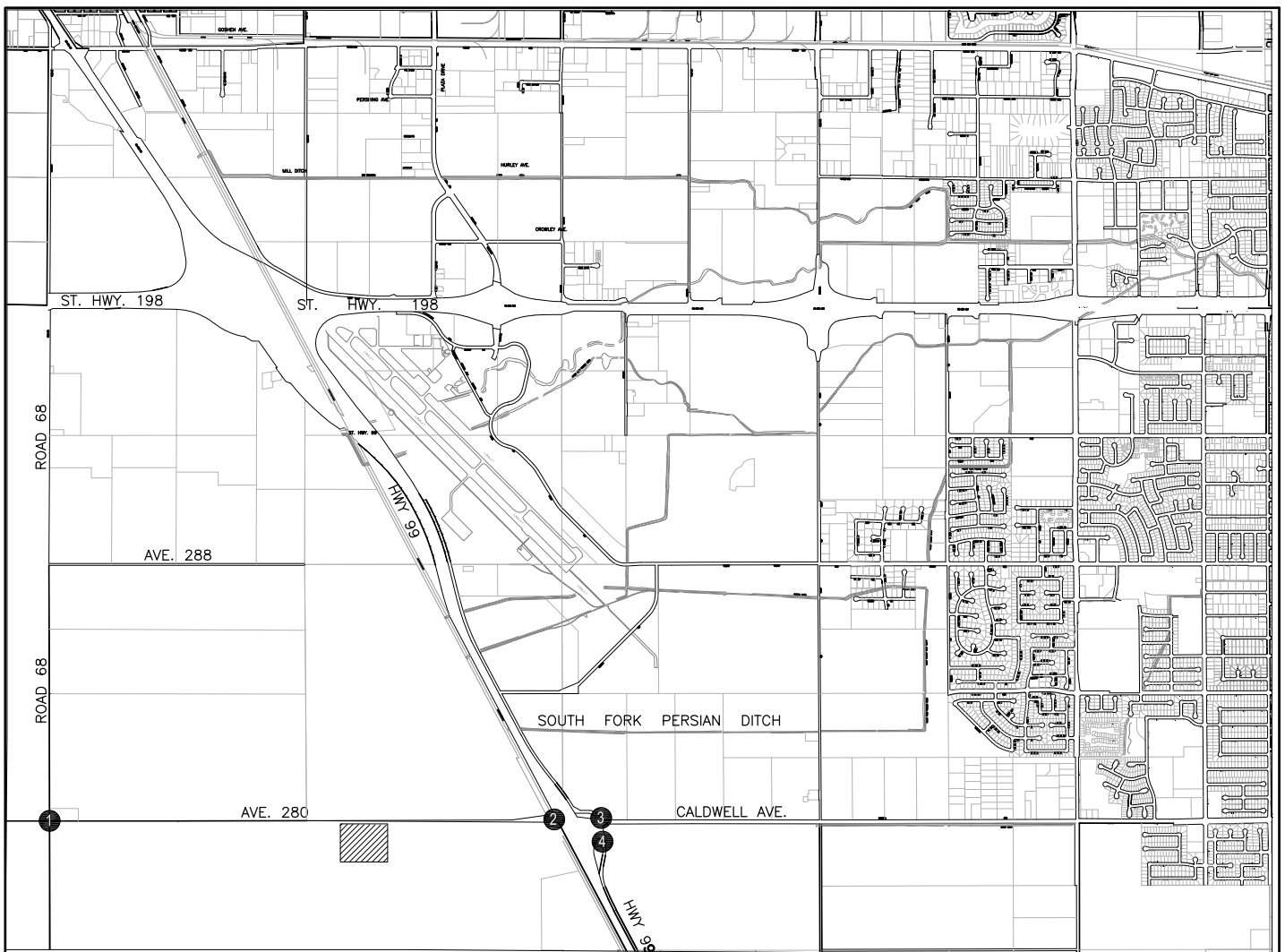
### PEAK-HOUR PROJECT TRAFFIC DISTRIBUTION PERCENTAGES



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Figure 5





### LEGEND

- STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

Proposed Concrete and Asphalt Batch Plant  
Tulare County, California

## PEAK-HOUR PROJECT TRAFFIC VOLUMES



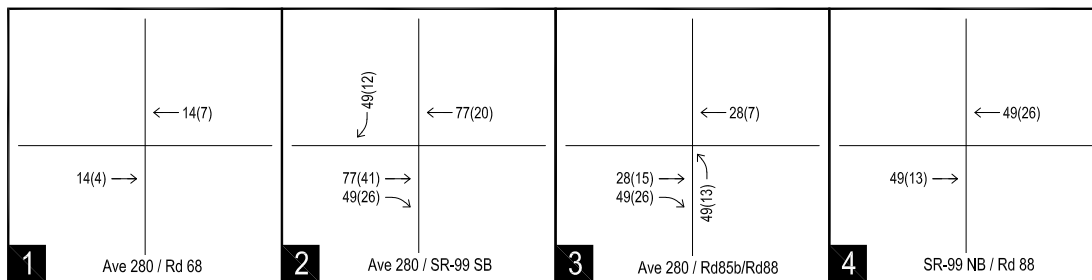
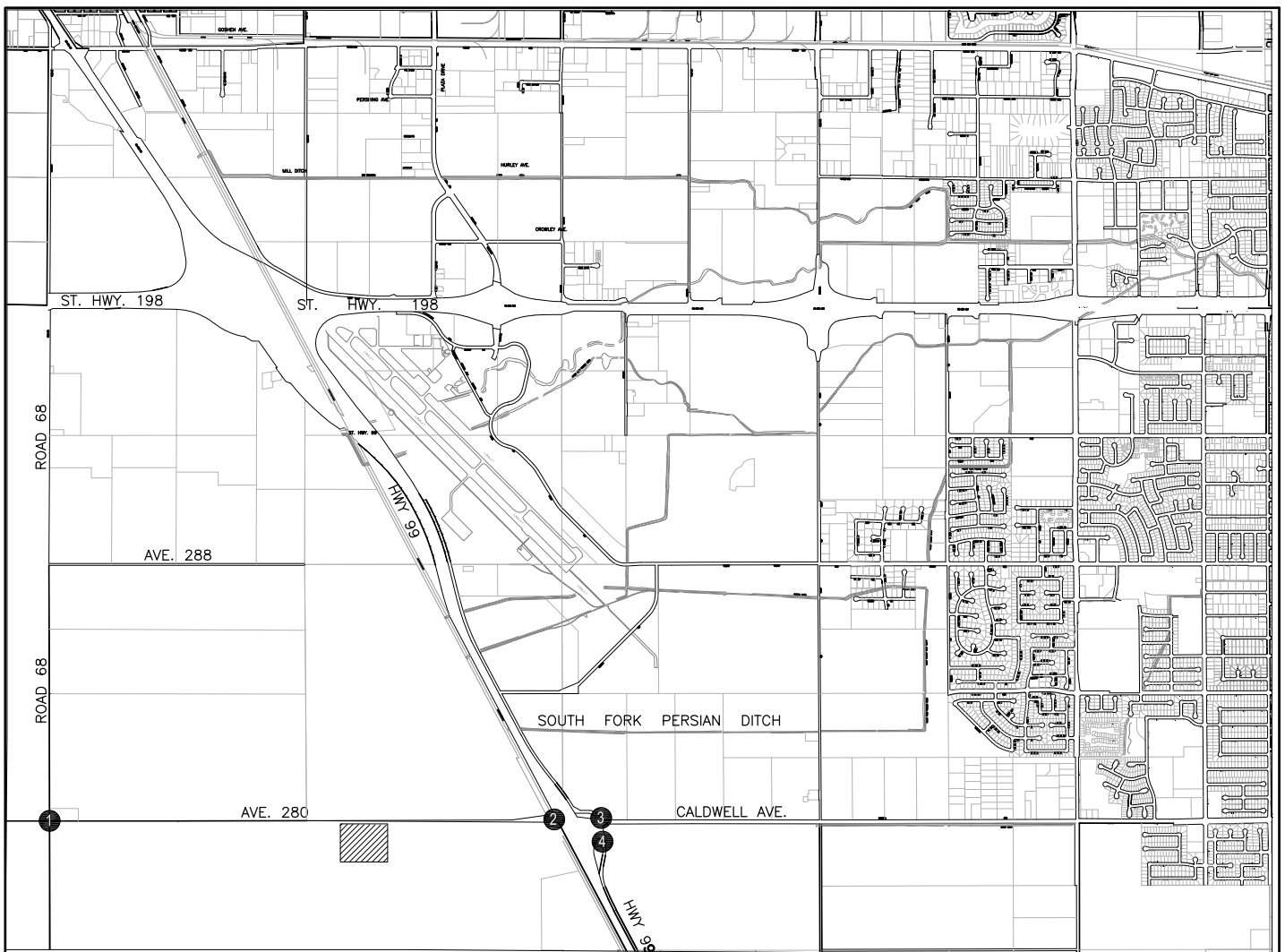
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Figure 6





### LEGEND

- STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

Proposed Concrete and Asphalt Batch Plant  
Tulare County, California

## PEAK-HOUR PROJECT TRAFFIC VOLUMES PASSENGER CAR EQUIVALENTS

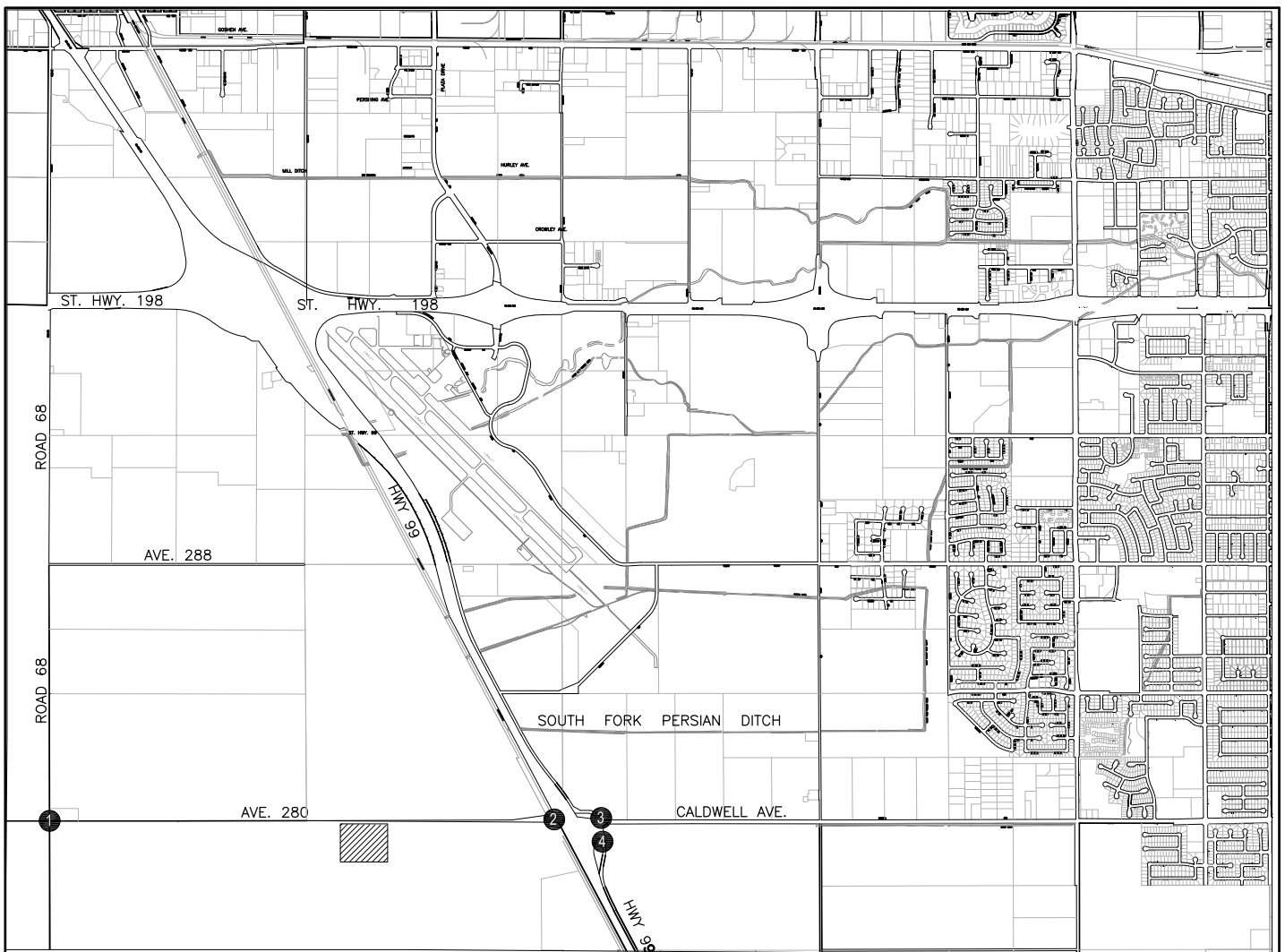


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Figure 7





<p><b>1</b></p> <p>Ave 280 / Rd 68</p> <p>           6(5) →            28(38) →            51(31) →            77(13) ←            50(87) ←            27(9) ←            7(18) →            56(64) →            25(22) →            17(12) ←            39(22) ←            44(36) ←         </p>	<p><b>2</b></p> <p>Ave 280 / SR-99 SB</p> <p>           45(13) →            2(4) →            118(83) →            199(110) ←            127(101) ←            177(153) →            51(47) →         </p>	<p><b>3</b></p> <p>Ave 280 / Rd85b/Rd88</p> <p>           13(24) →            4(10) →            1(1) →            2(1) ←            231(138) ←            147(113) ←            11(5) →            170(283) →            115(54) →            81(54) ←            14(7) ←            83(119) ←         </p>	<p><b>4</b></p> <p>SR-99 NB / Rd 88</p> <p>           187(127) ←            75(50) ←            140(138) →            15(23) →            42(45) ←            38(38) ←         </p>
--	--	--	---

### LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

Proposed Concrete and Asphalt Batch Plant  
Tulare County, California

## EXISTING PLUS PROJECT PEAK-HOUR TRAFFIC VOLUMES

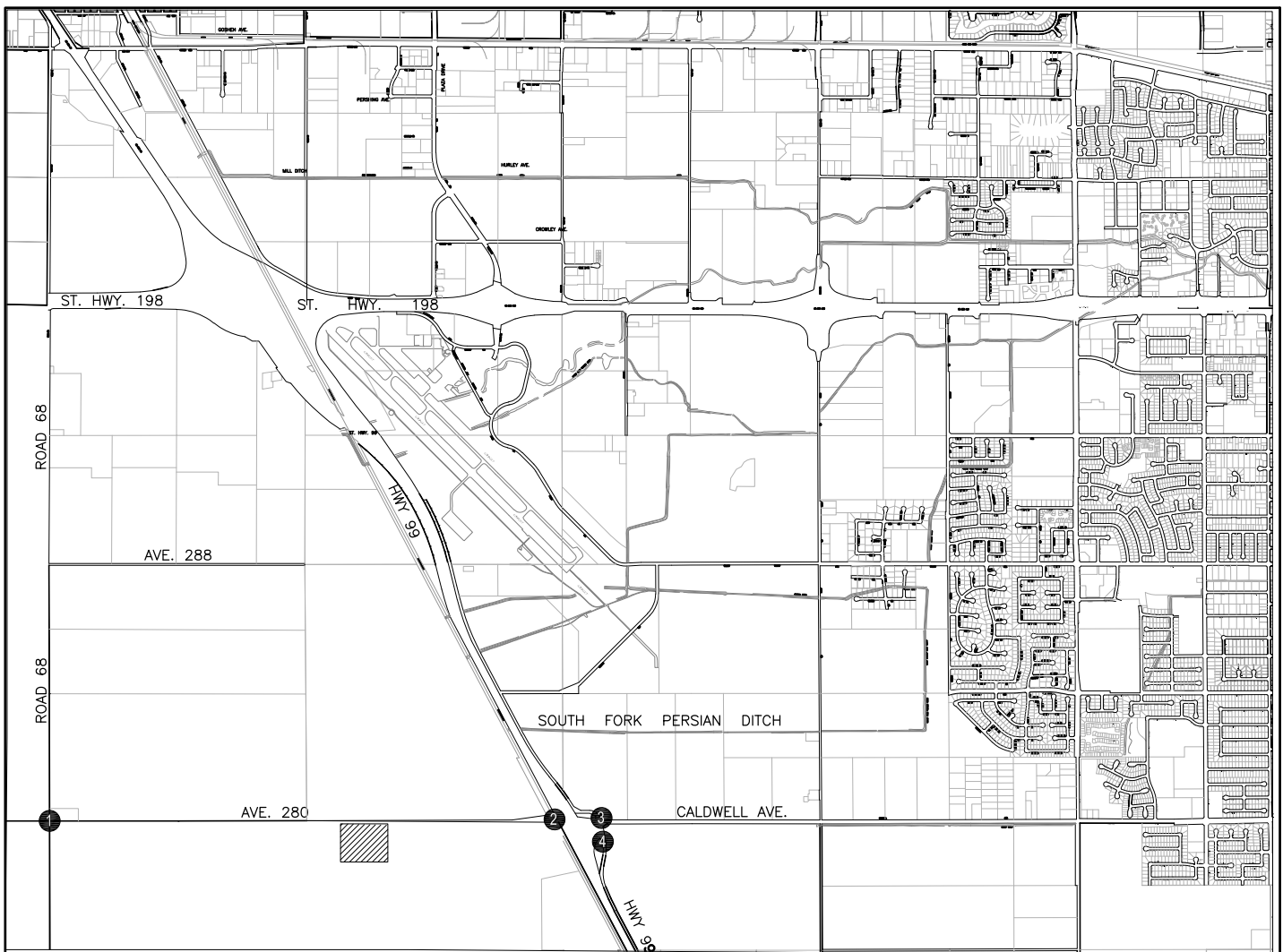


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Figure 8





<p>1</p> <p>Ave 280 / Rd 68</p> <p>7(18) 65(66) 25(22) 17(12) 39(22) 44(36) 77(13) 59(91) 27(9) 51(31) 28(38) 6(5)</p>	<p>2</p> <p>Ave 280 / SR-99 SB</p> <p>75(20) 2(4) 118(83) 247(121) 127(101) 225(176) 81(61)</p>	<p>3</p> <p>Ave 280 / Rd85b/Rd88</p> <p>13(24) 4(10) 1(1) 2(1) 248(142) 147(113) 11(5) 187(291) 145(68) 111(61) 14(7) 83(119)</p>	<p>4</p> <p>SR-99 NB / Rd 88</p> <p>217(141) 75(50) 170(145) 15(23) 42(45) 38(38)</p>
--	---	---	---

## LEGEND

- XX STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

Proposed Concrete and Asphalt Batch Plant  
Tulare County, California

EXISTING PLUS PROJECT PEAK-HOUR TRAFFIC VOLUMES  
PASSENGER CAR EQUIVALENTS



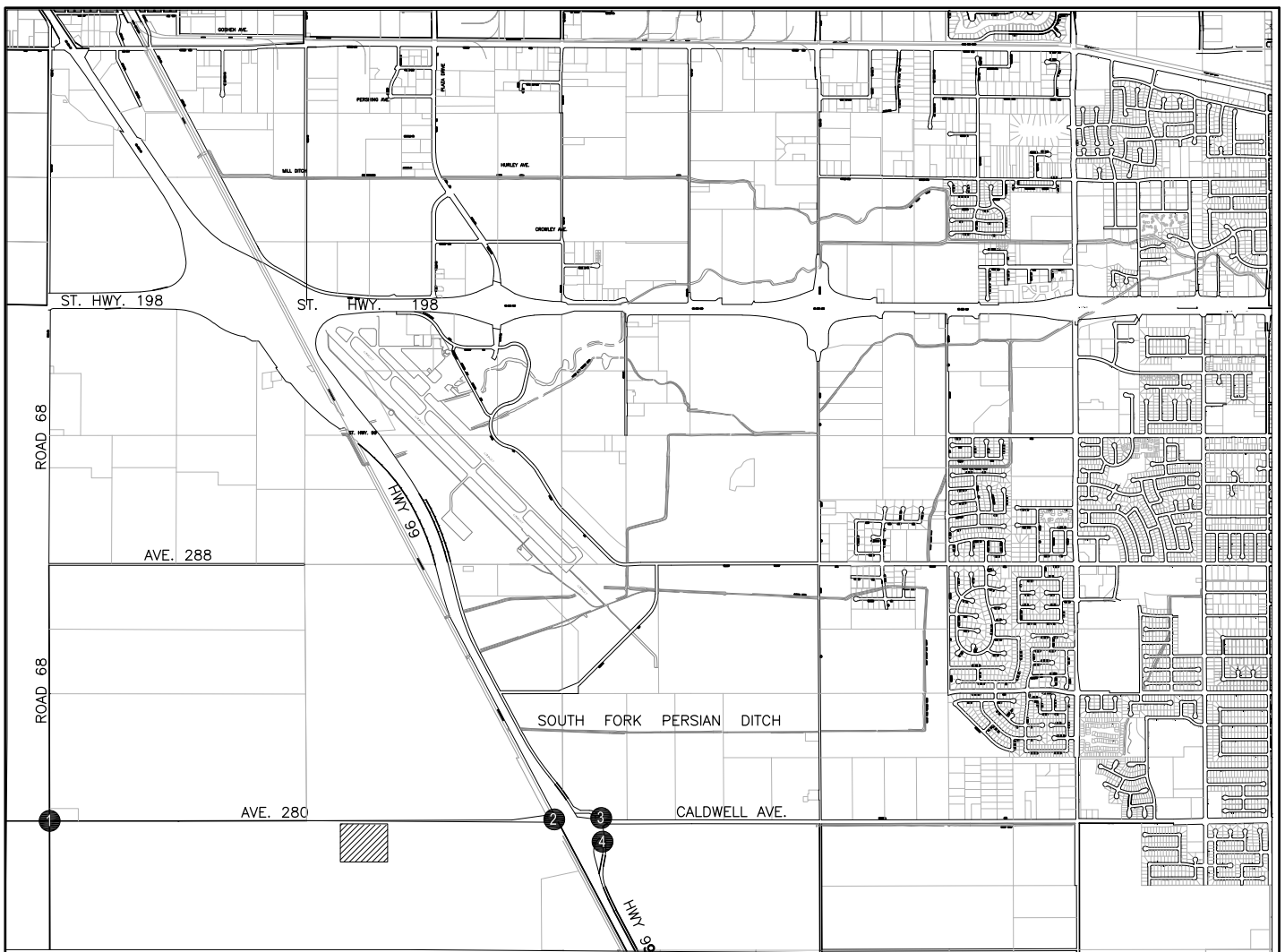
PETERS ENGINEERING GROUP



Not to Scale

Figure 9





<p><b>1</b></p> <p>Ave 280 / Rd 68</p>	<p><b>2</b></p> <p>Ave 280 / SR-99 SB</p>	<p><b>3</b></p> <p>Ave 280 / SR-99 NB</p>	<p><b>4</b></p> <p>DOES NOT EXIST</p> <p>SR-99 NB / Rd 88</p>
--	---	---	---

### LEGEND

- STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

Proposed Concrete and Asphalt Batch Plant  
Tulare County, California

CUMULATIVE 2040 WITH PROJECT PEAK-HOUR TRAFFIC VOLUMES



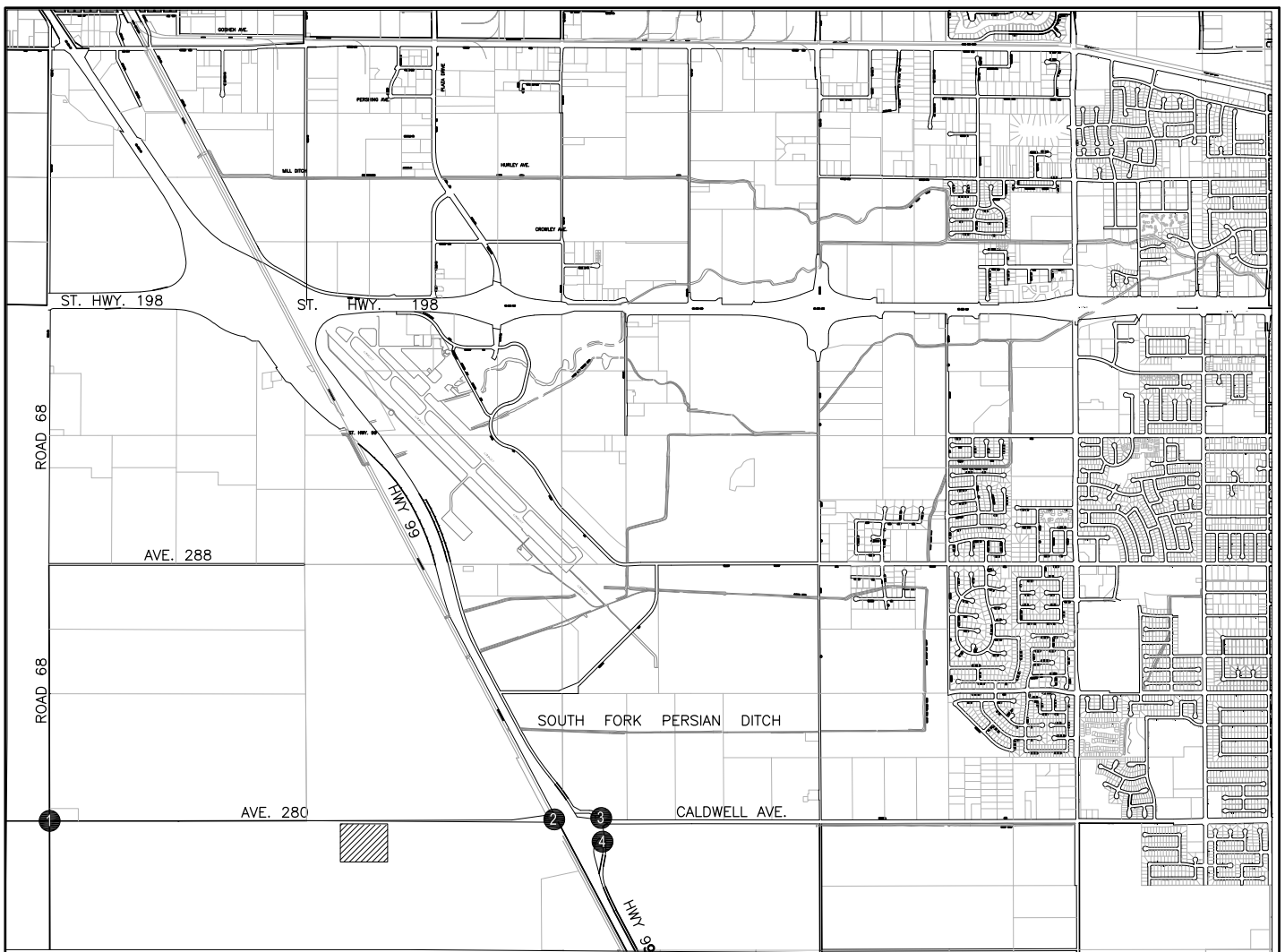
PETERS ENGINEERING GROUP



Not to Scale

Figure 10





<p><b>1</b></p> <p>Ave 280 / Rd 68</p> <p>7(6) 55(51) 63(38) 96(16) 100(168) 36(12)</p> <p>9(22) 112(123) 31(27) 21(15) 74(31) 56(50)</p>	<p><b>2</b></p> <p>Ave 280 / SR-99 SB</p> <p>107(76) 2(5) 462(843) 328(357) 483(670)</p> <p>477(416) 89(70)</p>	<p><b>3</b></p> <p>Ave 280 / SR-99 NB</p> <p>835(1158) 189(116) 423(789) 728(868)</p> <p>178(150) 386(636)</p>	<p><b>4</b></p> <p>SR-99 NB / Rd 88</p> <p>DOES NOT EXIST</p>
---	---	--	---

### LEGEND

- STUDY AREA INTERSECTIONS
- PROJECT SITE
- XX - AM Peak Hour Volumes
- (YY) - PM Peak Hour Volumes

Proposed Concrete and Asphalt Batch Plant  
Tulare County, California

CUMULATIVE 2040 WITH PROJECT PEAK-HOUR TRAFFIC VOLUMES  
PASSENGER CAR EQUIVALENTS



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Not to Scale

Figure 11



APPENDIX A  
TRAFFIC COUNT DATA SHEETS











**Metro Traffic Data Inc.**  
 310 N. Irwin Street - Suite 20  
 Hanford, CA 93230  
 800-975-6938 Phone/Fax  
 www.metrotrafficdata.com

# Turning Movement Report

Prepared For:

**Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**LOCATION** Ave 280 @ Rd 68  
**COUNTY** Tulare  
**COLLECTION DATE** Tuesday, August 28, 2018

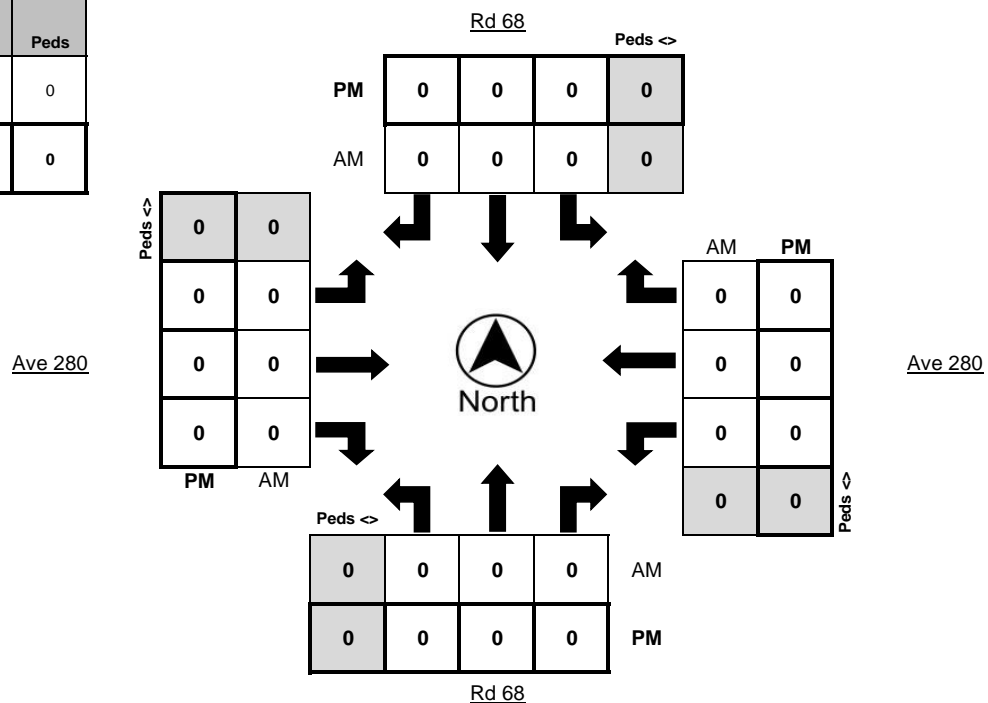
**LATITUDE** 36.2979  
**LONGITUDE** -119.4213  
**WEATHER** Clear

Time	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Time	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

PEAK HOUR	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	0	0







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# Turning Movement Report

Prepared For:

**Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**LOCATION** Ave 280 @ SR-99 SB Ramps

**LATITUDE** 36.2982

**COUNTY** Tulare

**LONGITUDE** -119.3853

**COLLECTION DATE** Tuesday, August 28, 2018

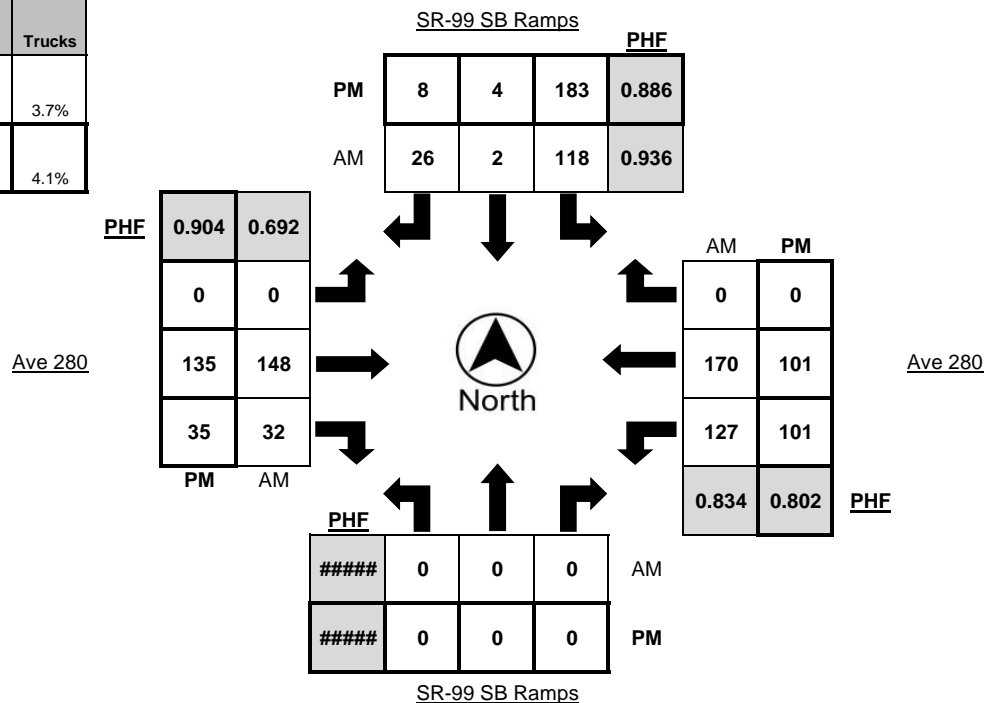
**WEATHER** Clear

Time	Northbound				Southbound				Eastbound				Westbound			
	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
7:00 AM - 7:15 AM	0	0	0	0	22	0	2	2	0	11	2	0	25	19	0	0
7:15 AM - 7:30 AM	0	0	0	0	34	1	4	3	0	21	4	5	32	30	0	5
7:30 AM - 7:45 AM	0	0	0	0	29	0	8	2	0	35	3	1	23	48	0	0
7:45 AM - 8:00 AM	0	0	0	0	29	0	5	0	0	52	13	1	37	52	0	2
8:00 AM - 8:15 AM	0	0	0	0	26	1	9	0	0	40	12	3	35	40	0	1
8:15 AM - 8:30 AM	0	0	0	0	26	1	2	0	0	33	8	2	22	21	0	1
8:30 AM - 8:45 AM	0	0	0	0	26	0	1	0	0	18	7	3	16	20	0	2
8:45 AM - 9:00 AM	0	0	0	0	29	0	1	1	0	17	6	2	24	24	0	2
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>221</b>	<b>3</b>	<b>32</b>	<b>8</b>	<b>0</b>	<b>227</b>	<b>55</b>	<b>17</b>	<b>214</b>	<b>254</b>	<b>0</b>	<b>13</b>

Time	Northbound				Southbound				Eastbound				Westbound			
	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
4:00 PM - 4:15 PM	0	0	0	0	43	0	1	0	0	26	11	2	19	26	0	9
4:15 PM - 4:30 PM	0	0	0	0	31	1	2	2	0	37	9	3	13	23	0	1
4:30 PM - 4:45 PM	0	0	0	0	39	4	3	3	0	42	5	3	20	32	0	5
4:45 PM - 5:00 PM	0	0	0	0	48	0	0	2	0	29	9	0	25	20	0	0
5:00 PM - 5:15 PM	0	0	0	0	51	0	4	1	0	30	12	4	39	24	0	0
5:15 PM - 5:30 PM	0	0	0	0	45	0	1	1	0	34	9	2	17	25	0	2
5:30 PM - 5:45 PM	0	0	0	0	53	1	2	2	0	33	10	0	15	25	0	0
5:45 PM - 6:00 PM	0	0	0	0	33	0	1	1	0	19	10	1	19	32	0	2
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>343</b>	<b>6</b>	<b>14</b>	<b>12</b>	<b>0</b>	<b>250</b>	<b>75</b>	<b>15</b>	<b>167</b>	<b>207</b>	<b>0</b>	<b>19</b>

PEAK HOUR	Northbound				Southbound				Eastbound				Westbound			
	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
7:15 AM - 8:15 AM	0	0	0	0	118	2	26	5	0	148	32	10	127	170	0	8
4:30 PM - 5:30 PM	0	0	0	0	183	4	8	7	0	135	35	9	101	101	0	7

	PHF	Trucks
AM	0.828	3.7%
PM	0.886	4.1%







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 310 N. Irwin Street - Suite 20  
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# Turning Movement Report

Prepared For:

**Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**LOCATION** Ave 280 @ SR-99 SB Ramps  
**COUNTY** Tulare  
**COLLECTION DATE** Tuesday, August 28, 2018

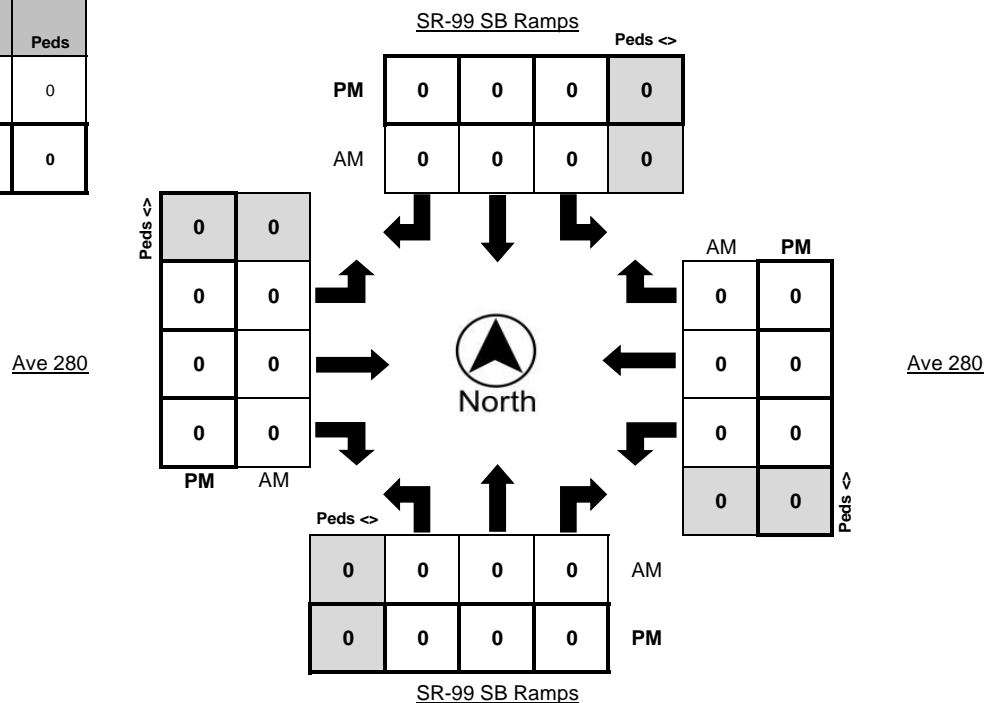
**LATITUDE** 36.2982  
**LONGITUDE** -119.3853  
**WEATHER** Clear

Time	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Time	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

PEAK HOUR	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
7:15 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	0	0







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# Turning Movement Report

Prepared For:

**Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**LOCATION** Ave 280 @ Drive 88 / Drive 85B

**LATITUDE** 36.2981

**COUNTY** Tulare

**LONGITUDE** -119.3827

**COLLECTION DATE** Tuesday, August 28, 2018

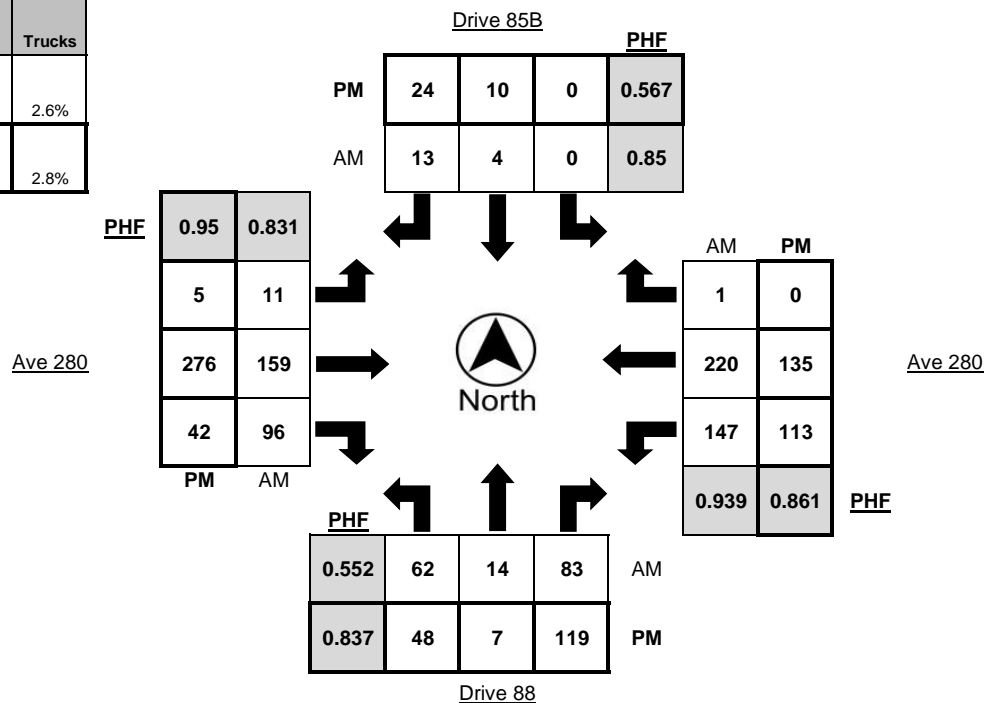
**WEATHER** Clear

	Northbound				Southbound				Eastbound				Westbound			
Time	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
7:00 AM - 7:15 AM	7	2	10	1	0	1	3	0	0	19	12	1	40	41	0	2
7:15 AM - 7:30 AM	15	2	8	3	0	2	3	1	1	30	21	4	41	43	0	4
7:30 AM - 7:45 AM	12	1	10	1	0	1	4	0	3	34	28	1	35	63	0	1
7:45 AM - 8:00 AM	17	8	47	1	0	1	3	0	4	49	27	2	35	61	0	0
8:00 AM - 8:15 AM	18	3	18	1	0	0	3	0	3	46	20	0	36	53	1	2
8:15 AM - 8:30 AM	6	1	11	1	0	0	2	0	4	39	16	0	31	34	0	1
8:30 AM - 8:45 AM	8	1	18	0	0	0	3	0	0	37	5	0	23	24	0	1
8:45 AM - 9:00 AM	9	2	18	0	0	0	2	0	0	37	9	2	21	29	0	3
<b>TOTAL</b>	<b>92</b>	<b>20</b>	<b>140</b>	<b>8</b>	<b>0</b>	<b>5</b>	<b>23</b>	<b>1</b>	<b>15</b>	<b>291</b>	<b>138</b>	<b>10</b>	<b>262</b>	<b>348</b>	<b>1</b>	<b>14</b>

	Northbound				Southbound				Eastbound				Westbound			
Time	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
4:00 PM - 4:15 PM	17	0	28	9	0	4	1	0	0	61	9	1	28	28	0	2
4:15 PM - 4:30 PM	5	1	28	0	0	0	3	0	1	60	8	4	29	27	2	3
4:30 PM - 4:45 PM	17	1	34	4	0	4	3	0	2	69	9	4	29	34	0	2
4:45 PM - 5:00 PM	8	2	30	0	0	1	4	0	1	63	14	1	23	36	0	2
5:00 PM - 5:15 PM	15	3	29	2	0	3	12	0	1	73	11	3	32	40	0	0
5:15 PM - 5:30 PM	8	1	26	0	0	2	5	1	1	71	8	1	29	25	0	2
5:30 PM - 5:45 PM	12	1	21	0	1	1	3	0	0	69	16	2	30	27	0	4
5:45 PM - 6:00 PM	12	4	21	1	0	0	4	0	1	46	4	1	18	34	1	1
<b>TOTAL</b>	<b>94</b>	<b>13</b>	<b>217</b>	<b>16</b>	<b>1</b>	<b>15</b>	<b>35</b>	<b>1</b>	<b>7</b>	<b>512</b>	<b>79</b>	<b>17</b>	<b>218</b>	<b>251</b>	<b>3</b>	<b>16</b>

	Northbound				Southbound				Eastbound				Westbound			
PEAK HOUR	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
7:15 AM - 8:15 AM	62	14	83	6	0	4	13	1	11	159	96	7	147	220	1	7
4:30 PM - 5:30 PM	48	7	119	6	0	10	24	1	5	276	42	9	113	135	0	6

	PHF	Trucks
AM	0.804	2.6%
PM	0.889	2.8%







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**COUNTY** Tulare  
**COLLECTION DATE** Tuesday, August 28, 2018

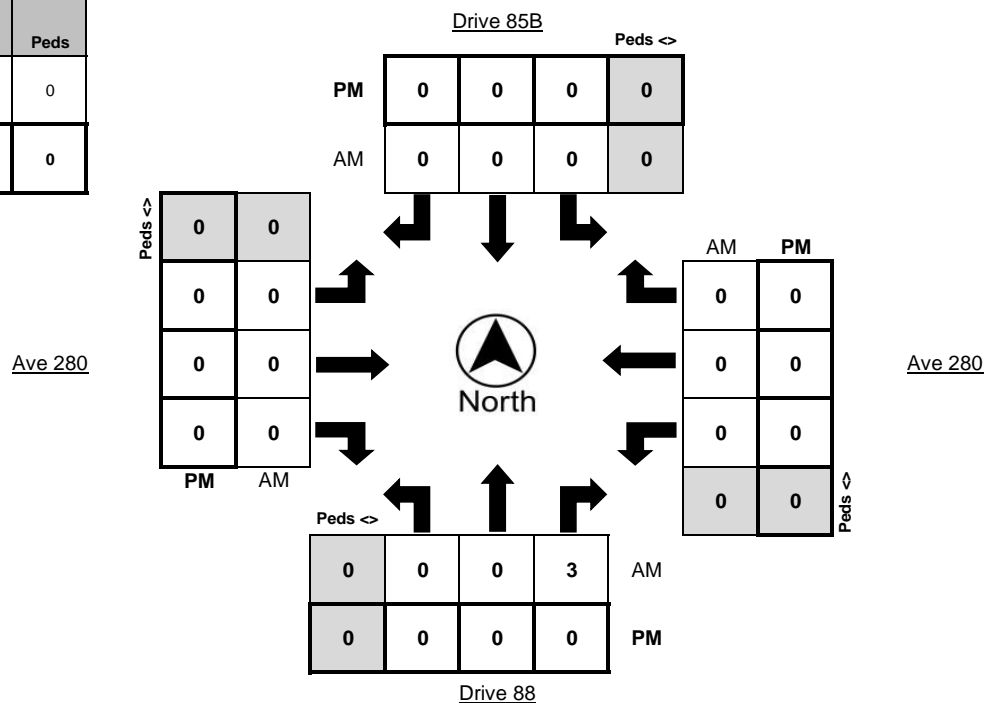
**LATITUDE** 36.2981  
**LONGITUDE** -119.3827  
**WEATHER** Clear

Time	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Time	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
4:00 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

PEAK HOUR	Northbound Bikes			N.Leg Peds	Southbound Bikes			S.Leg Peds	Eastbound Bikes			E.Leg Peds	Westbound Bikes			W.Leg Peds
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right	
7:15 AM - 8:15 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Bikes	Peds
AM Peak Total	3	0
PM Peak Total	0	0







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# Turning Movement Report

Prepared For:

**Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**LOCATION** Drive 88 @ SR-99 NB Ramps

**LATITUDE** 36.2974

**COUNTY** Tulare

**LONGITUDE** -119.3827

**COLLECTION DATE** Tuesday, August 28, 2018

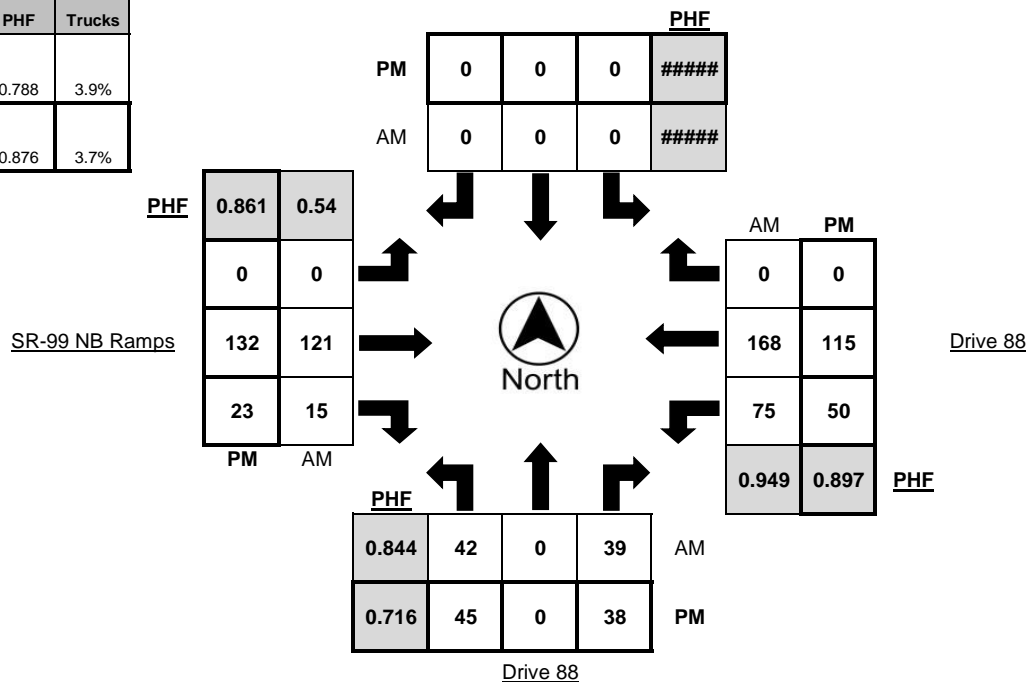
**WEATHER** Clear

	Northbound				Southbound				Eastbound				Westbound			
Time	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
7:00 AM - 7:15 AM	9	0	4	0	0	0	0	0	0	13	10	0	17	40	0	2
7:15 AM - 7:30 AM	9	0	11	1	0	0	0	0	0	16	5	3	23	40	0	3
7:30 AM - 7:45 AM	7	0	7	0	0	0	0	0	0	16	0	2	17	47	0	3
7:45 AM - 8:00 AM	11	0	13	0	0	0	0	0	0	58	5	1	18	41	0	2
8:00 AM - 8:15 AM	15	0	8	0	0	0	0	0	0	31	5	1	17	40	0	2
8:15 AM - 8:30 AM	7	0	5	2	0	0	0	0	0	14	2	2	9	39	0	1
8:30 AM - 8:45 AM	3	0	4	1	0	0	0	0	0	21	2	2	3	27	0	1
8:45 AM - 9:00 AM	8	0	6	0	0	0	0	0	0	22	4	3	11	20	0	1
<b>TOTAL</b>	<b>69</b>	<b>0</b>	<b>58</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>191</b>	<b>33</b>	<b>14</b>	<b>115</b>	<b>294</b>	<b>0</b>	<b>15</b>

	Northbound				Southbound				Eastbound				Westbound			
Time	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
4:00 PM - 4:15 PM	11	0	5	1	0	0	0	0	0	41	8	8	16	25	0	1
4:15 PM - 4:30 PM	12	0	6	0	0	0	0	0	0	26	6	0	10	29	0	2
4:30 PM - 4:45 PM	11	0	11	4	0	0	0	0	0	42	3	2	11	29	0	3
4:45 PM - 5:00 PM	8	0	6	0	0	0	0	0	0	33	5	0	16	24	0	1
5:00 PM - 5:15 PM	14	0	15	0	0	0	0	0	0	31	9	1	13	33	0	2
5:15 PM - 5:30 PM	11	0	8	0	0	0	0	0	0	27	2	0	5	35	0	1
5:30 PM - 5:45 PM	6	0	5	0	0	0	0	0	0	28	2	0	13	35	0	3
5:45 PM - 6:00 PM	13	0	8	0	0	0	0	0	0	36	5	0	2	20	0	1
<b>TOTAL</b>	<b>86</b>	<b>0</b>	<b>64</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>264</b>	<b>40</b>	<b>11</b>	<b>86</b>	<b>230</b>	<b>0</b>	<b>14</b>

	Northbound				Southbound				Eastbound				Westbound			
PEAK HOUR	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks	Left	Thru	Right	Trucks
7:15 AM - 8:15 AM	42	0	39	1	0	0	0	0	0	121	15	7	75	168	0	10
4:15 PM - 5:15 PM	45	0	38	4	0	0	0	0	0	132	23	3	50	115	0	8

	PHF	Trucks
AM	0.788	3.9%
PM	0.876	3.7%





# Turning Movement Report

Prepared For:

**Peters Engineering Group**  
952 Pollasky Avenue  
Clovis, CA 93612

**LOCATION** Drive 88 @ SR-99 NB Ramps

LATITUDE 36.2974

**COUNTY** Tulare

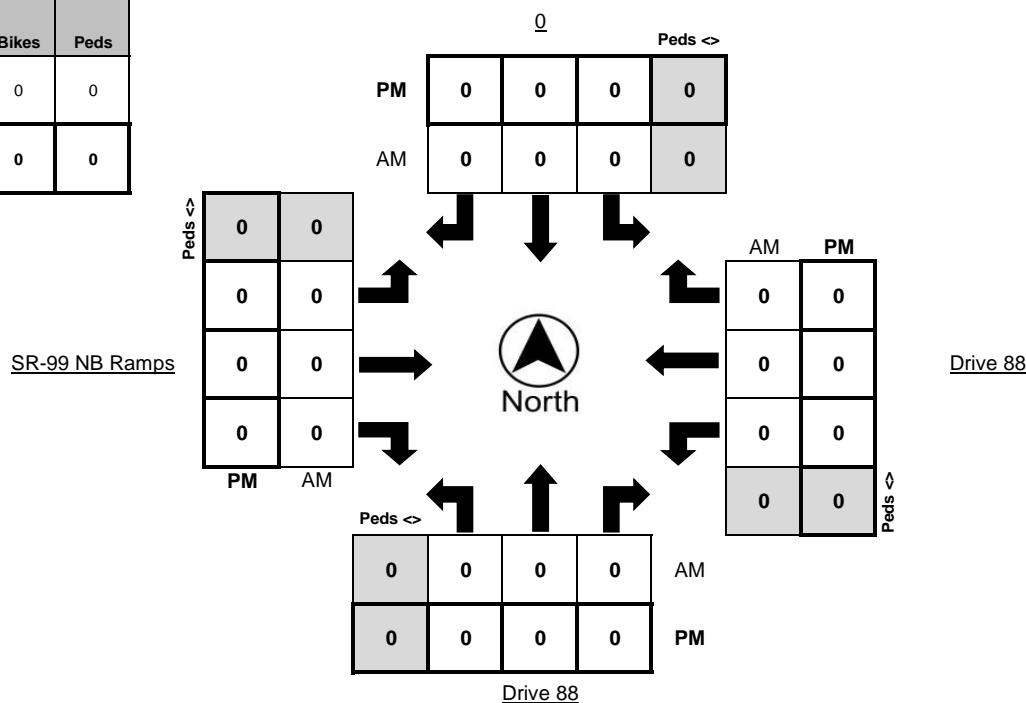
**LONGITUDE** -119.3827

**COLLECTION DATE** Tuesday, August 28, 2018

**WEATHER** Clear

[illegible][illegible][illegible]

	Bikes	Peds
AM Peak Total	0	0
PM Peak Total	0	0







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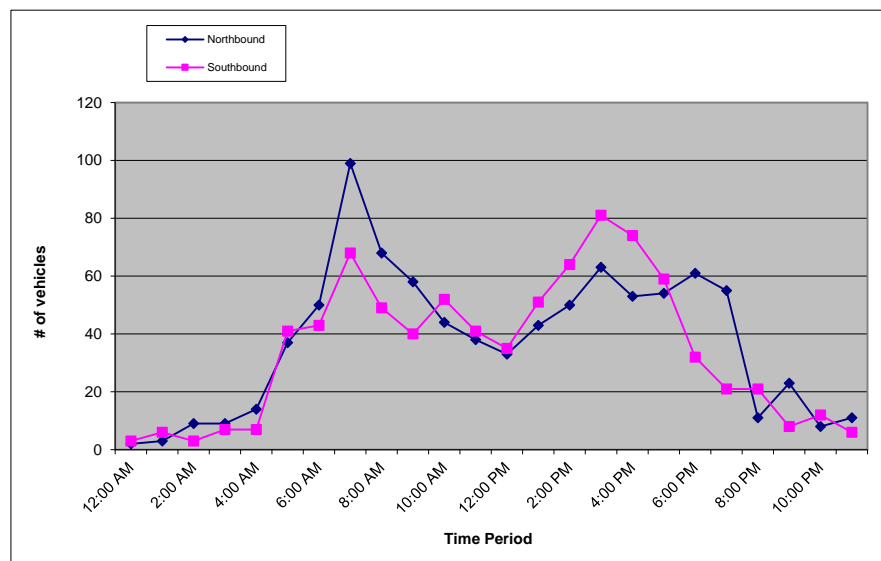
# 24 Hour Count Report

Prepared For: **Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**STREET** Rd 68 **LATITUDE** 36.2979024  
**SEGMENT** North of Ave 280 **LONGITUDE** -119.4212687  
**COLLECTION DATE** Tuesday, August 28, 2018 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Northbound					Southbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	1	0	0	1	2	1	1	1	0	3	5
1:00 AM	0	0	1	2	3	0	1	3	2	6	9
2:00 AM	2	3	1	3	9	0	0	2	1	3	12
3:00 AM	2	0	4	3	9	1	3	2	1	7	16
4:00 AM	2	3	3	6	14	2	0	3	2	7	21
5:00 AM	4	9	13	11	37	1	16	7	17	41	78
6:00 AM	16	14	4	16	50	7	8	16	12	43	93
7:00 AM	12	11	40	36	99	5	14	24	25	68	167
8:00 AM	36	9	11	12	68	22	18	5	4	49	117
9:00 AM	17	17	17	7	58	12	7	10	11	40	98
10:00 AM	12	10	13	9	44	14	15	16	7	52	96
11:00 AM	7	13	5	13	38	13	7	10	11	41	79
12:00 PM	8	6	8	11	33	6	8	9	12	35	68
1:00 PM	5	14	12	12	43	8	9	18	16	51	94
2:00 PM	19	11	12	8	50	14	11	14	25	64	114
3:00 PM	15	17	21	10	63	22	15	33	11	81	144
4:00 PM	13	20	13	7	53	23	23	15	13	74	127
5:00 PM	16	11	11	16	54	26	15	11	7	59	113
6:00 PM	17	17	14	13	61	9	12	6	5	32	93
7:00 PM	16	18	8	13	55	6	3	10	2	21	76
8:00 PM	1	6	2	2	11	4	5	8	4	21	32
9:00 PM	3	10	5	5	23	2	4	0	2	8	31
10:00 PM	4	3	0	1	8	5	2	2	3	12	20
11:00 PM	5	3	2	1	11	3	2	1	0	6	17
Total	52.1%				896	47.9%				824	
	1720										

**AM%** **46.0%** **AM Peak 210** **7:30 am to 8:30 am** **AM P.H.F.** **0.82**  
**PM%** **54.0%** **PM Peak 156** **2:45 pm to 3:45 pm** **PM P.H.F.** **0.72**







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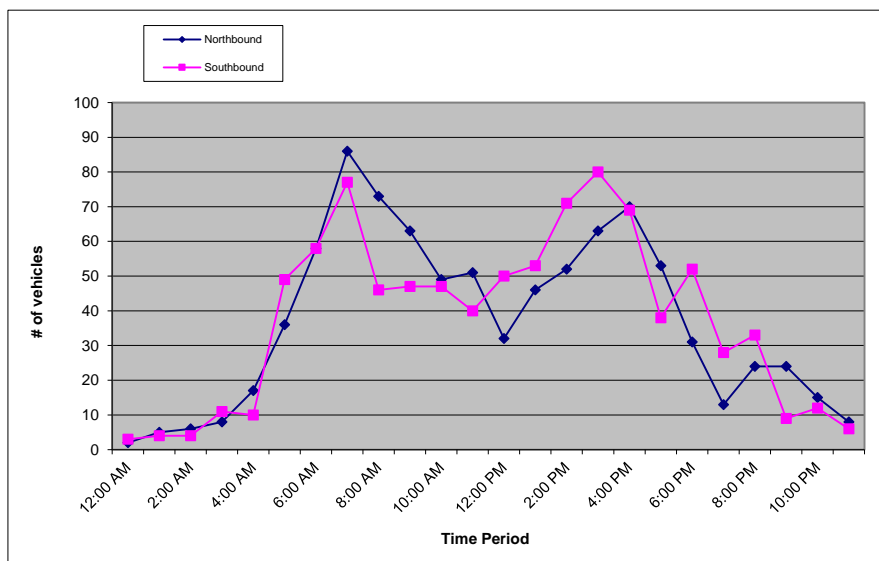
# 24 Hour Count Report

Prepared For: **Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**STREET** Rd 68 **LATITUDE** 36.2979024  
**SEGMENT** South of Ave 280 **LONGITUDE** -119.4212687  
**COLLECTION DATE** Tuesday, August 28, 2018 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Northbound					Southbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	1	0	0	1	2	1	0	2	0	3	5
1:00 AM	1	1	1	2	5	0	0	3	1	4	9
2:00 AM	2	1	0	3	6	0	0	1	3	4	10
3:00 AM	1	0	5	2	8	1	1	5	4	11	19
4:00 AM	2	2	7	6	17	2	1	0	7	10	27
5:00 AM	3	7	14	12	36	4	18	9	18	49	85
6:00 AM	15	16	10	17	58	11	15	17	15	58	116
7:00 AM	13	16	28	29	86	12	20	23	22	77	163
8:00 AM	27	16	17	13	73	15	15	8	8	46	119
9:00 AM	18	19	18	8	63	7	17	8	15	47	110
10:00 AM	17	15	10	7	49	15	16	8	8	47	96
11:00 AM	13	9	11	18	51	12	9	9	10	40	91
12:00 PM	8	5	8	11	32	10	12	10	18	50	82
1:00 PM	11	17	9	9	46	9	16	13	15	53	99
2:00 PM	12	16	13	11	52	17	10	10	34	71	123
3:00 PM	12	26	15	10	63	19	18	28	15	80	143
4:00 PM	18	18	23	11	70	26	21	10	12	69	139
5:00 PM	14	11	15	13	53	10	9	9	10	38	91
6:00 PM	7	8	10	6	31	14	22	9	7	52	83
7:00 PM	5	3	4	1	13	9	7	6	6	28	41
8:00 PM	2	12	6	4	24	6	8	8	11	33	57
9:00 PM	4	11	6	3	24	1	4	1	3	9	33
10:00 PM	2	7	4	2	15	6	1	4	1	12	27
11:00 PM	3	1	2	2	8	2	2	2	0	6	14
Total	49.7%				885	50.3%				897	
	1782										

**AM%** **47.7%** **AM Peak 180** **7:15 am to 8:15 am** **AM P.H.F. 0.88**  
**PM%** **52.3%** **PM Peak 163** **2:45 pm to 3:45 pm** **PM P.H.F. 0.91**







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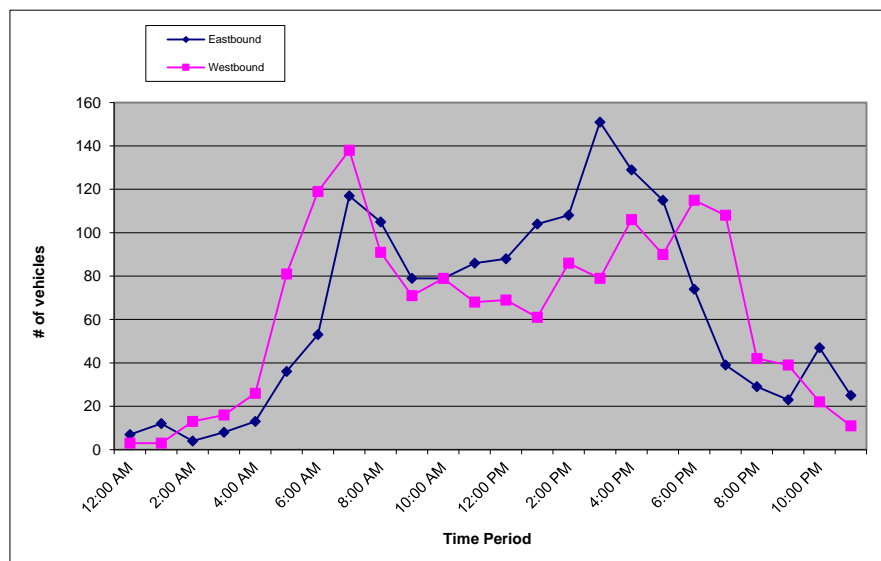
# 24 Hour Count Report

Prepared For: **Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**STREET** Ave 280 **LATITUDE** 36.2979024  
**SEGMENT** East of Rd 68 **LONGITUDE** -119.4212687  
**COLLECTION DATE** Tuesday, August 28, 2018 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	2	3	1	1	7	1	0	2	0	3	10
1:00 AM	4	2	4	2	12	1	1	0	1	3	15
2:00 AM	1	1	1	1	4	6	2	1	4	13	17
3:00 AM	1	2	3	2	8	3	1	5	7	16	24
4:00 AM	1	0	8	4	13	4	4	7	11	26	39
5:00 AM	5	8	12	11	36	7	23	25	26	81	117
6:00 AM	11	8	18	16	53	32	34	21	32	119	172
7:00 AM	12	25	36	44	117	23	26	52	37	138	255
8:00 AM	41	31	20	13	105	34	18	20	19	91	196
9:00 AM	22	22	14	21	79	16	17	26	12	71	150
10:00 AM	21	27	20	11	79	17	19	21	22	79	158
11:00 AM	17	23	15	31	86	19	16	8	25	68	154
12:00 PM	16	33	20	19	88	23	13	16	17	69	157
1:00 PM	20	35	27	22	104	13	12	15	21	61	165
2:00 PM	29	20	34	25	108	22	19	18	27	86	194
3:00 PM	27	48	51	25	151	19	18	25	17	79	230
4:00 PM	26	32	40	31	129	31	33	21	21	106	235
5:00 PM	41	18	32	24	115	21	27	19	23	90	205
6:00 PM	18	15	20	21	74	30	33	25	27	115	189
7:00 PM	14	5	13	7	39	31	36	15	26	108	147
8:00 PM	3	8	10	8	29	12	8	9	13	42	71
9:00 PM	6	10	6	1	23	9	7	13	10	39	62
10:00 PM	6	12	14	15	47	4	6	6	6	22	69
11:00 PM	11	6	5	3	25	7	1	3	0	11	36
Total	49.9%				1531	50.1%				1536	
	3067										

**AM%** 42.6% **AM Peak** 295 **7:15 am to 8:15 am** **AM P.H.F.** 0.84  
**PM%** 57.4% **PM Peak** 241 **3:15 pm to 4:15 pm** **PM P.H.F.** 0.79







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# 24 Hour Count Report

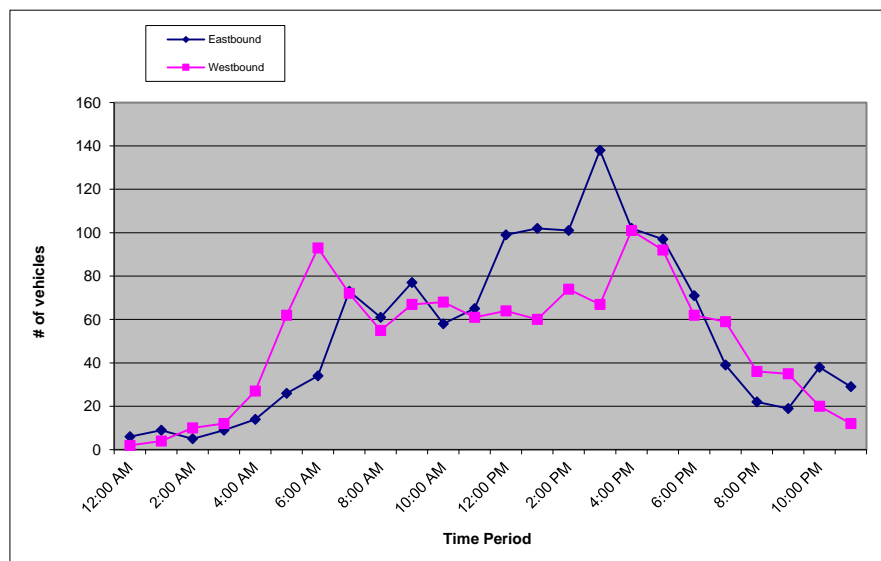
Prepared For: **Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**STREET** Ave 280  
**SEGMENT** West of Rd 68  
**COLLECTION DATE** Tuesday, August 28, 2018  
**NUMBER OF LANES** 2

**LATITUDE** 36.2979024  
**LONGITUDE** -119.4212687  
**WEATHER** Clear

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	2	2	1	1	6	1	0	1	0	2	8
1:00 AM	3	1	4	1	9	1	2	0	1	4	13
2:00 AM	1	2	1	1	5	6	1	1	2	10	15
3:00 AM	0	2	4	3	9	1	3	4	4	12	21
4:00 AM	1	1	5	7	14	4	3	11	9	27	41
5:00 AM	6	3	11	6	26	4	14	23	21	62	88
6:00 AM	6	8	11	9	34	22	29	19	23	93	127
7:00 AM	9	19	16	29	73	14	19	21	18	72	145
8:00 AM	19	16	16	10	61	10	13	19	13	55	116
9:00 AM	14	24	14	25	77	14	11	29	13	67	144
10:00 AM	17	19	12	10	58	17	15	18	18	68	126
11:00 AM	11	24	7	23	65	20	11	7	23	61	126
12:00 PM	19	36	19	25	99	22	11	14	17	64	163
1:00 PM	16	41	23	22	102	14	14	13	19	60	162
2:00 PM	35	15	26	25	101	18	20	15	21	74	175
3:00 PM	22	43	48	25	138	14	19	21	13	67	205
4:00 PM	24	30	27	21	102	31	31	23	16	101	203
5:00 PM	27	16	26	28	97	21	31	19	21	92	189
6:00 PM	19	16	18	18	71	16	15	16	15	62	133
7:00 PM	15	6	8	10	39	18	18	10	13	59	98
8:00 PM	5	3	5	9	22	13	6	8	9	36	58
9:00 PM	4	6	4	5	19	9	4	11	11	35	54
10:00 PM	9	6	12	11	38	4	5	6	5	20	58
11:00 PM	12	8	6	3	29	7	1	3	1	12	41
Total	51.6%				1294	48.4%				1215	
	2509										

**AM%** 38.7%      **AM Peak** 151      **7:15 am to 8:15 am**      **AM P.H.F.** 0.80  
**PM%** 61.3%      **PM Peak** 224      **3:15 pm to 4:15 pm**      **PM P.H.F.** 0.81







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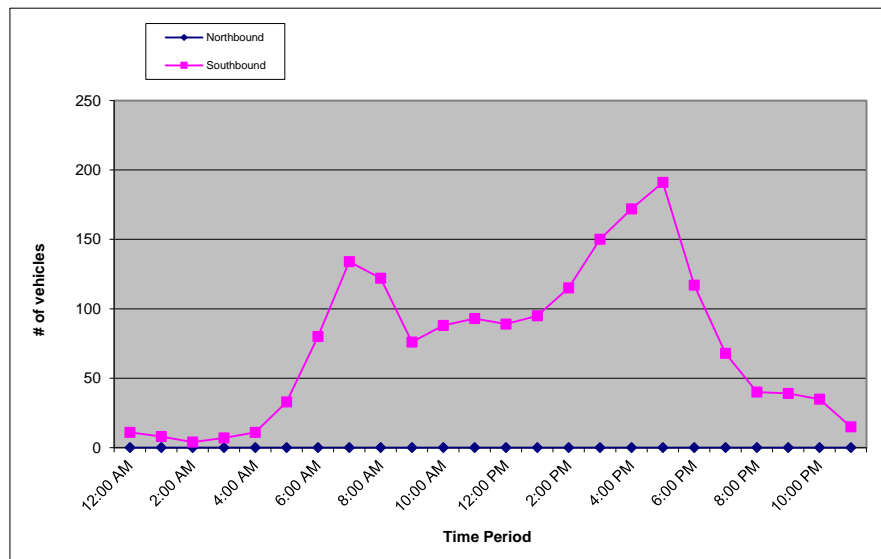
# 24 Hour Count Report

Prepared For: **Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**STREET** SR-99 SB Offramp **LATITUDE** 36.2982267  
**SEGMENT** North of Ave 280 **LONGITUDE** -119.3853378  
**COLLECTION DATE** Tuesday, August 28, 2018 **WEATHER** Clear  
**NUMBER OF LANES** 1

	Northbound					Southbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	0	0	0	0	0	4	2	4	1	11	11
1:00 AM	0	0	0	0	0	2	1	2	3	8	8
2:00 AM	0	0	0	0	0	2	1	0	1	4	4
3:00 AM	0	0	0	0	0	1	2	3	1	7	7
4:00 AM	0	0	0	0	0	4	3	0	4	11	11
5:00 AM	0	0	0	0	0	7	6	5	15	33	33
6:00 AM	0	0	0	0	0	12	13	24	31	80	80
7:00 AM	0	0	0	0	0	24	39	37	34	134	134
8:00 AM	0	0	0	0	0	36	29	27	30	122	122
9:00 AM	0	0	0	0	0	24	14	21	17	76	76
10:00 AM	0	0	0	0	0	27	22	19	20	88	88
11:00 AM	0	0	0	0	0	17	27	24	25	93	93
12:00 PM	0	0	0	0	0	21	26	22	20	89	89
1:00 PM	0	0	0	0	0	29	25	20	21	95	95
2:00 PM	0	0	0	0	0	26	28	30	31	115	115
3:00 PM	0	0	0	0	0	31	44	43	32	150	150
4:00 PM	0	0	0	0	0	44	34	46	48	172	172
5:00 PM	0	0	0	0	0	55	46	56	34	191	191
6:00 PM	0	0	0	0	0	29	36	27	25	117	117
7:00 PM	0	0	0	0	0	20	18	13	17	68	68
8:00 PM	0	0	0	0	0	8	11	10	11	40	40
9:00 PM	0	0	0	0	0	10	13	7	9	39	39
10:00 PM	0	0	0	0	0	10	11	6	8	35	35
11:00 PM	0	0	0	0	0	5	5	3	2	15	15
Total	0.0%				0	100.0%				1793	
	1793										

**AM%** **37.2%** **AM Peak 146** **7:15 am to 8:15 am** **AM P.H.F. 0.94**  
**PM%** **62.8%** **PM Peak 205** **4:45 pm to 5:45 pm** **PM P.H.F. 0.92**







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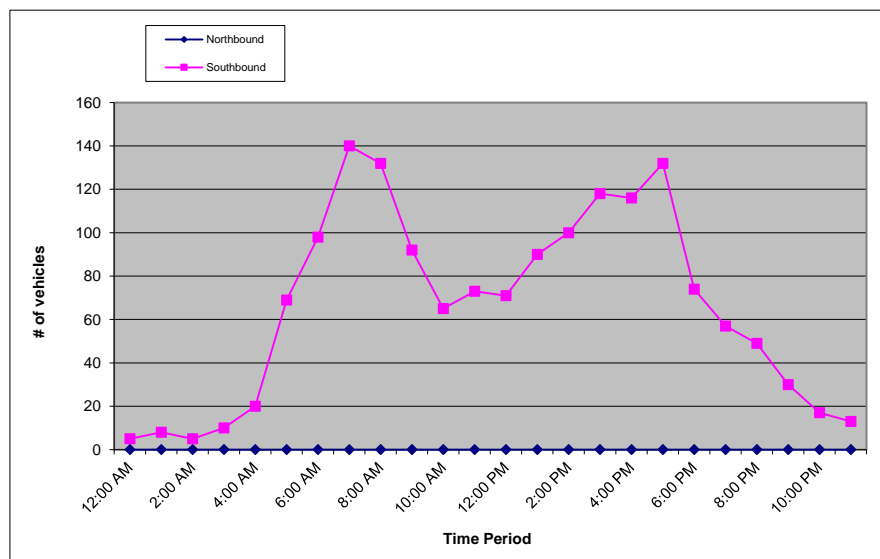
# 24 Hour Count Report

Prepared For: **Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**STREET** SR-99 SB On-ramp **LATITUDE** 36.2982267  
**SEGMENT** South of Ave 280 **LONGITUDE** -119.3853378  
**COLLECTION DATE** Tuesday, August 28, 2018 **WEATHER** Clear  
**NUMBER OF LANES** 1

	Northbound					Southbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	0	0	0	0	0	2	2	1	0	5	5
1:00 AM	0	0	0	0	0	3	0	3	2	8	8
2:00 AM	0	0	0	0	0	1	2	0	2	5	5
3:00 AM	0	0	0	0	0	2	2	1	5	10	10
4:00 AM	0	0	0	0	0	1	4	10	5	20	20
5:00 AM	0	0	0	0	0	10	20	22	17	69	69
6:00 AM	0	0	0	0	0	23	10	36	29	98	98
7:00 AM	0	0	0	0	0	27	37	26	50	140	140
8:00 AM	0	0	0	0	0	48	31	23	30	132	132
9:00 AM	0	0	0	0	0	20	23	16	33	92	92
10:00 AM	0	0	0	0	0	16	20	17	12	65	65
11:00 AM	0	0	0	0	0	17	14	17	25	73	73
12:00 PM	0	0	0	0	0	14	20	16	21	71	71
1:00 PM	0	0	0	0	0	21	22	22	25	90	90
2:00 PM	0	0	0	0	0	23	25	23	29	100	100
3:00 PM	0	0	0	0	0	33	19	36	30	118	118
4:00 PM	0	0	0	0	0	30	23	29	34	116	116
5:00 PM	0	0	0	0	0	51	26	26	29	132	132
6:00 PM	0	0	0	0	0	18	20	20	16	74	74
7:00 PM	0	0	0	0	0	21	14	10	12	57	57
8:00 PM	0	0	0	0	0	15	13	12	9	49	49
9:00 PM	0	0	0	0	0	10	8	7	5	30	30
10:00 PM	0	0	0	0	0	6	5	3	3	17	17
11:00 PM	0	0	0	0	0	6	4	2	1	13	13
Total	0.0%				0	100.0%				1584	
	1584										

**AM%** **45.3%** **AM Peak 161** **7:15 am to 8:15 am** **AM P.H.F.** **0.81**  
**PM%** **54.7%** **PM Peak 140** **4:30 pm to 5:30 pm** **PM P.H.F.** **0.69**







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# 24 Hour Count Report

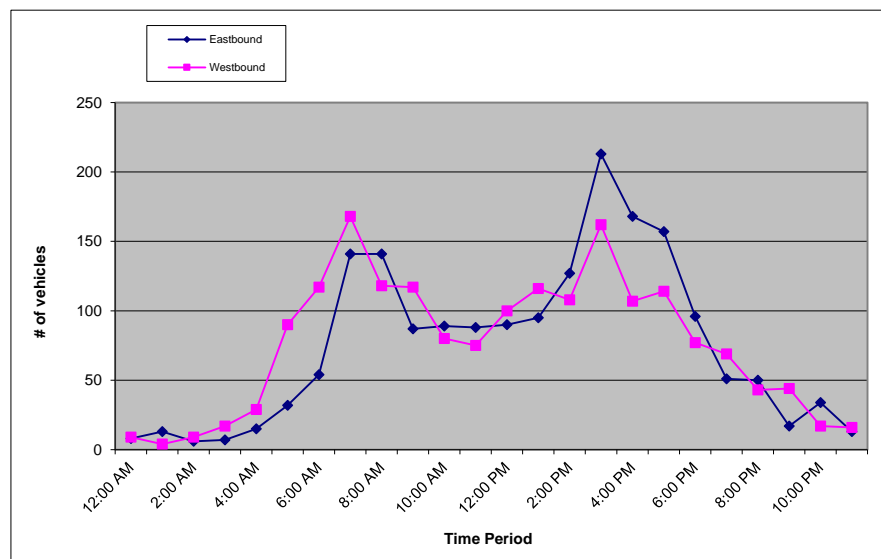
Prepared For: **Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**STREET** Ave 280  
**SEGMENT** West of SR-99 SB Ramps  
**COLLECTION DATE** Tuesday, August 28, 2018  
**NUMBER OF LANES** 2

**LATITUDE** 36.2982267  
**LONGITUDE** -119.3853378  
**WEATHER** Clear

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	3	0	3	2	8	1	2	4	2	9	17
1:00 AM	4	1	5	3	13	1	2	0	1	4	17
2:00 AM	1	3	1	1	6	2	3	1	3	9	15
3:00 AM	1	2	3	1	7	3	1	6	7	17	24
4:00 AM	3	0	8	4	15	5	4	5	15	29	44
5:00 AM	3	8	13	8	32	10	23	26	31	90	122
6:00 AM	11	11	16	16	54	33	32	22	30	117	171
7:00 AM	13	25	38	65	141	21	34	56	57	168	309
8:00 AM	52	41	25	23	141	49	23	21	25	118	259
9:00 AM	19	22	19	27	87	25	38	24	30	117	204
10:00 AM	17	34	21	17	89	13	20	20	27	80	169
11:00 AM	19	23	17	29	88	21	13	10	31	75	163
12:00 PM	27	21	21	21	90	18	34	21	27	100	190
1:00 PM	18	22	28	27	95	25	40	24	27	116	211
2:00 PM	25	31	34	37	127	33	19	27	29	108	235
3:00 PM	45	29	101	38	213	36	68	35	23	162	375
4:00 PM	37	46	47	38	168	27	25	35	20	107	275
5:00 PM	42	43	43	29	157	28	26	27	33	114	271
6:00 PM	27	24	23	22	96	23	21	17	16	77	173
7:00 PM	22	3	15	11	51	23	19	12	15	69	120
8:00 PM	12	10	16	12	50	11	8	14	10	43	93
9:00 PM	6	5	3	3	17	11	15	9	9	44	61
10:00 PM	5	11	9	9	34	6	4	3	4	17	51
11:00 PM	7	4	1	1	13	6	6	3	1	16	29
Total	49.8%				1792	50.2%				1806	
	3598										

**AM%** 42.1%      **AM Peak** 381      **7:30 am to 8:30 am**      **AM P.H.F.** 0.78  
**PM%** 57.9%      **PM Peak** 380      **2:45 pm to 3:45 pm**      **PM P.H.F.** 0.70







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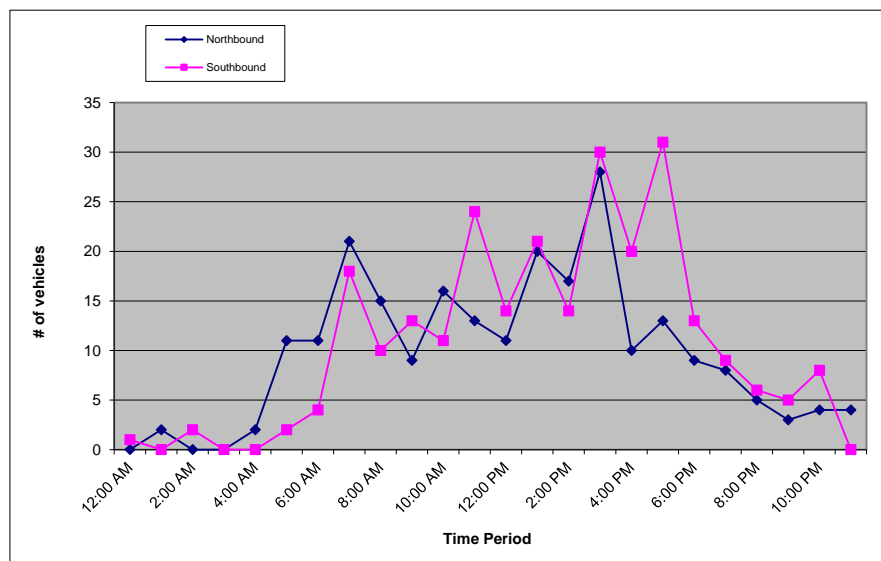
# 24 Hour Count Report

Prepared For: **Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**STREET** Drive 85B **LATITUDE** 36.2981099  
**SEGMENT** North of Ave 280 **LONGITUDE** -119.3827254  
**COLLECTION DATE** Tuesday, August 28, 2018 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Northbound					Southbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	0	0	0	0	0	1	0	0	0	1	1
1:00 AM	0	2	0	0	2	0	0	0	0	0	2
2:00 AM	0	0	0	0	0	0	0	0	2	2	2
3:00 AM	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	0	1	1	0	2	0	0	0	0	0	2
5:00 AM	3	0	2	6	11	0	2	0	0	2	13
6:00 AM	1	3	3	4	11	2	0	2	0	4	15
7:00 AM	2	3	4	12	21	4	5	5	4	18	39
8:00 AM	7	5	1	2	15	3	2	3	2	10	25
9:00 AM	2	5	1	1	9	2	4	2	5	13	22
10:00 AM	2	5	2	7	16	1	3	2	5	11	27
11:00 AM	5	2	3	3	13	4	5	5	10	24	37
12:00 PM	1	6	1	3	11	0	3	4	7	14	25
1:00 PM	6	7	6	1	20	6	9	1	5	21	41
2:00 PM	3	4	4	6	17	3	6	2	3	14	31
3:00 PM	7	2	14	5	28	12	7	4	7	30	58
4:00 PM	0	4	3	3	10	5	3	7	5	20	30
5:00 PM	4	2	1	6	13	15	7	5	4	31	44
6:00 PM	1	2	3	3	9	3	2	3	5	13	22
7:00 PM	3	2	3	0	8	3	2	2	2	9	17
8:00 PM	2	3	0	0	5	3	0	2	1	6	11
9:00 PM	0	1	1	1	3	5	0	0	0	5	8
10:00 PM	3	0	1	0	4	4	1	2	1	8	12
11:00 PM	2	0	0	2	4	0	0	0	0	0	4
Total	47.5%				232	52.5%				256	
	488										

**AM%** **37.9%** **AM Peak 43** **7:15 am to 8:15 am** **AM P.H.F. 0.67**  
**PM%** **62.1%** **PM Peak 58** **3:00 pm to 4:00 pm** **PM P.H.F. 0.76**







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# 24 Hour Count Report

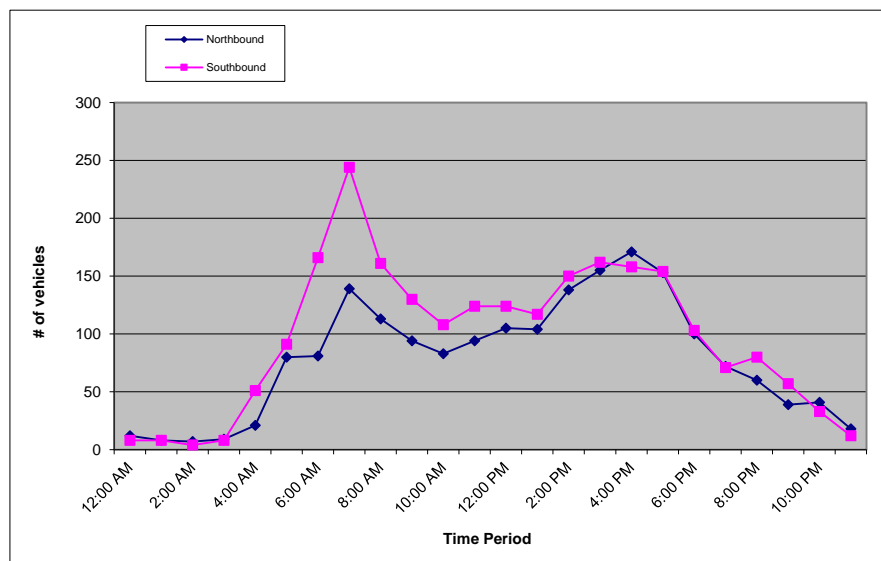
Prepared For: **Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**STREET** Drive 88  
**SEGMENT** South of Ave 280  
**COLLECTION DATE** Tuesday, August 28, 2018  
**NUMBER OF LANES** 2

**LATITUDE** 36.2981099  
**LONGITUDE** -119.3827254  
**WEATHER** Clear

	Northbound					Southbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	4	3	3	2	12	4	0	1	3	8	20
1:00 AM	3	3	1	1	8	4	2	0	2	8	16
2:00 AM	2	2	1	2	7	1	2	1	0	4	11
3:00 AM	5	0	4	0	9	0	2	3	3	8	17
4:00 AM	3	4	7	7	21	13	9	13	16	51	72
5:00 AM	8	12	22	38	80	22	24	20	25	91	171
6:00 AM	13	22	20	26	81	37	39	41	49	166	247
7:00 AM	19	25	23	72	139	53	64	64	63	244	383
8:00 AM	39	18	27	29	113	56	47	28	30	161	274
9:00 AM	24	21	16	33	94	29	33	30	38	130	224
10:00 AM	13	22	23	25	83	33	23	21	31	108	191
11:00 AM	25	18	19	32	94	34	31	29	30	124	218
12:00 PM	23	35	25	22	105	24	27	26	47	124	229
1:00 PM	23	23	27	31	104	27	37	24	29	117	221
2:00 PM	22	35	42	39	138	35	49	44	22	150	288
3:00 PM	30	39	48	38	155	33	36	49	44	162	317
4:00 PM	45	34	52	40	171	41	37	42	38	158	329
5:00 PM	47	35	34	37	153	46	39	47	22	154	307
6:00 PM	24	27	33	16	100	27	29	28	19	103	203
7:00 PM	18	25	15	14	72	29	14	16	12	71	143
8:00 PM	13	17	18	12	60	18	19	20	23	80	140
9:00 PM	10	9	16	4	39	19	13	8	17	57	96
10:00 PM	11	6	16	8	41	16	8	5	4	33	74
11:00 PM	7	7	3	1	18	7	1	3	1	12	30
Total	44.9%				1897	55.1%				2324	
	4221										

**AM%** 43.7%      **AM Peak** 406      **7:15 am to 8:15 am**      **AM P.H.F.** 0.75  
**PM%** 56.3%      **PM Peak** 340      **3:15 pm to 4:15 pm**      **PM P.H.F.** 0.88







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# 24 Hour Count Report

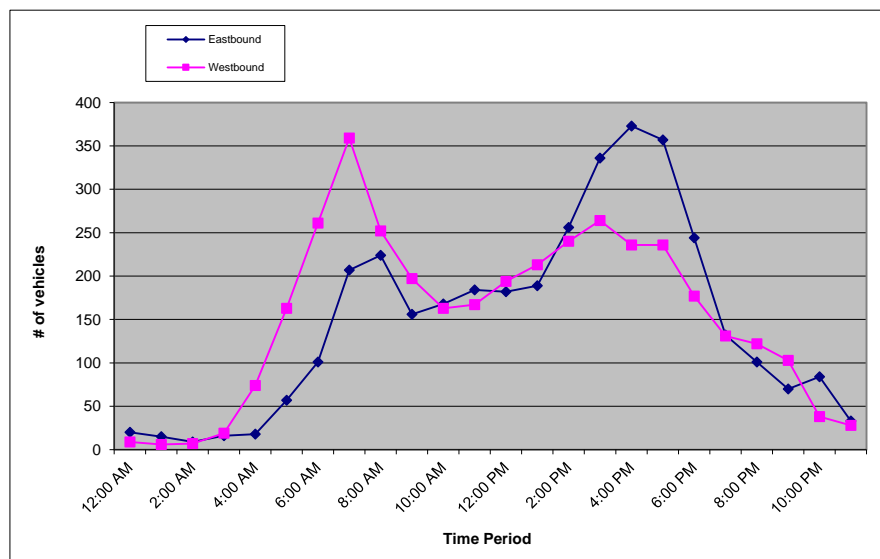
Prepared For: **Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**STREET** Ave 280  
**SEGMENT** East of Drive 88 and Drive 85B  
**COLLECTION DATE** Tuesday, August 28, 2018  
**NUMBER OF LANES** 2

**LATITUDE** 36.2981099  
**LONGITUDE** -119.3827254  
**WEATHER** Clear

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	8	4	6	2	20	2	3	1	3	9	29
1:00 AM	5	0	5	5	15	3	1	0	2	6	21
2:00 AM	4	1	1	3	9	2	2	3	0	7	16
3:00 AM	3	3	8	2	16	3	3	4	9	19	35
4:00 AM	6	4	4	4	18	23	14	17	20	74	92
5:00 AM	5	8	14	30	57	33	34	46	50	163	220
6:00 AM	9	22	32	38	101	56	70	55	80	261	362
7:00 AM	29	38	44	96	207	81	84	98	96	359	566
8:00 AM	64	50	55	55	224	90	65	47	50	252	476
9:00 AM	45	30	36	45	156	46	51	45	55	197	353
10:00 AM	39	48	46	35	168	43	33	41	46	163	331
11:00 AM	42	43	44	55	184	54	30	40	43	167	351
12:00 PM	46	51	46	39	182	38	45	44	67	194	376
1:00 PM	52	39	48	50	189	50	69	45	49	213	402
2:00 PM	48	60	74	74	256	68	63	60	49	240	496
3:00 PM	68	73	119	76	336	63	73	71	57	264	600
4:00 PM	89	88	103	93	373	56	58	63	59	236	609
5:00 PM	102	97	91	67	357	72	54	57	53	236	593
6:00 PM	64	66	62	52	244	50	45	48	34	177	421
7:00 PM	37	28	36	31	132	52	25	28	26	131	263
8:00 PM	18	27	35	21	101	37	28	30	27	122	223
9:00 PM	19	20	20	11	70	28	31	20	24	103	173
10:00 PM	18	20	22	24	84	19	6	3	10	38	122
11:00 PM	12	11	5	5	33	15	5	5	3	28	61
Total	49.1%				3532	50.9%				3659	
	7191										

**AM%** 39.7%      **AM Peak** 610      **7:15 am to 8:15 am**      **AM P.H.F.** 0.79  
**PM%** 60.3%      **PM Peak** 643      **4:30 pm to 5:30 pm**      **PM P.H.F.** 0.92







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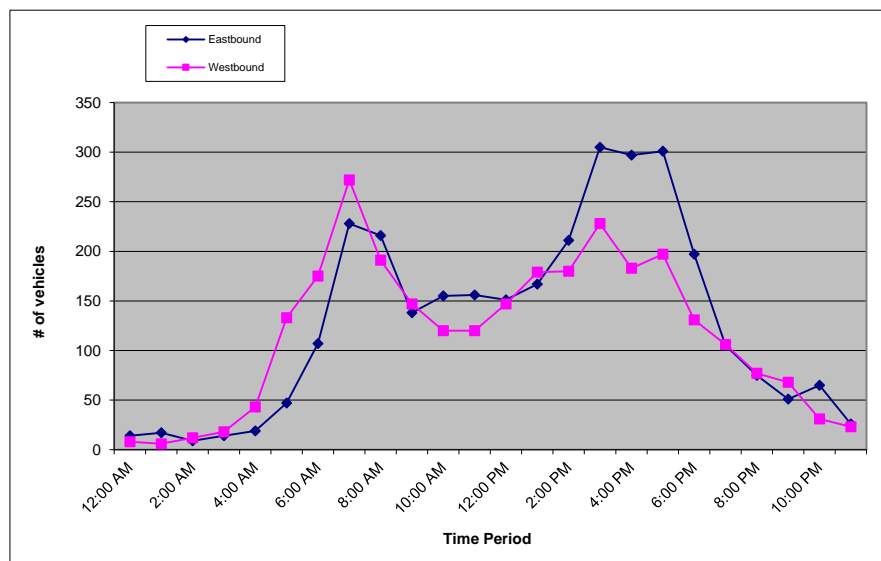
# 24 Hour Count Report

Prepared For: **Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**STREET** Ave 280 **LATITUDE** 36.2981099  
**SEGMENT** West of Drive 88 and Drive 85B **LONGITUDE** -119.3827254  
**COLLECTION DATE** Tuesday, August 28, 2018 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	6	2	4	2	14	1	4	1	2	8	22
1:00 AM	6	2	4	5	17	3	2	0	1	6	23
2:00 AM	3	3	1	2	9	2	4	3	3	12	21
3:00 AM	2	4	6	2	14	7	2	3	6	18	32
4:00 AM	7	3	4	5	19	14	7	10	12	43	62
5:00 AM	8	7	11	21	47	19	23	43	48	133	180
6:00 AM	18	20	33	36	107	42	48	34	51	175	282
7:00 AM	31	52	65	80	228	51	61	79	81	272	500
8:00 AM	69	59	42	46	216	74	42	35	40	191	407
9:00 AM	37	28	35	38	138	33	36	31	47	147	285
10:00 AM	43	46	35	31	155	26	28	32	34	120	275
11:00 AM	31	42	38	45	156	33	19	26	42	120	276
12:00 PM	44	43	33	31	151	34	42	33	38	147	298
1:00 PM	42	40	44	41	167	36	58	39	46	179	346
2:00 PM	42	53	59	57	211	49	44	41	46	180	391
3:00 PM	62	61	115	67	305	59	69	56	44	228	533
4:00 PM	70	69	80	78	297	46	35	54	48	183	480
5:00 PM	85	80	85	51	301	67	38	42	50	197	498
6:00 PM	50	57	45	45	197	35	34	36	26	131	328
7:00 PM	36	20	27	22	105	40	28	17	21	106	211
8:00 PM	15	17	22	21	75	30	13	17	17	77	152
9:00 PM	13	17	10	11	51	18	23	17	10	68	119
10:00 PM	13	21	14	17	65	10	6	7	8	31	96
11:00 PM	9	8	4	5	26	10	8	4	1	23	49
Total	52.4%				3071	47.6%				2795	
	5866										

**AM%** 40.3% **AM Peak** 561 **7:15 am to 8:15 am** **AM P.H.F.** 0.87  
**PM%** 59.7% **PM Peak** 533 **3:00 pm to 4:00 pm** **PM P.H.F.** 0.78







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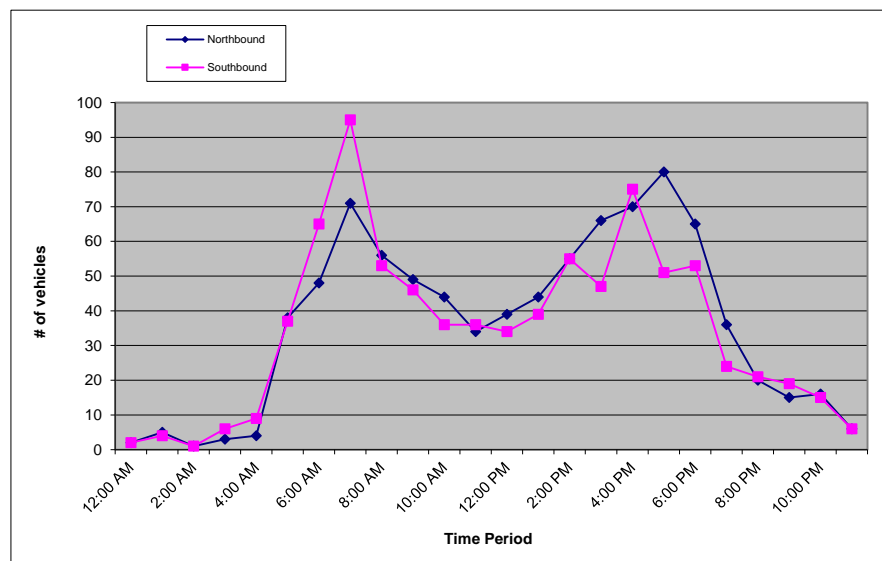
# 24 Hour Count Report

Prepared For: **Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**STREET** Drive 88 **LATITUDE** 36.2973879  
**SEGMENT** South of SR-99 NB Ramps **LONGITUDE** -119.3827146  
**COLLECTION DATE** Tuesday, August 28, 2018 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Northbound					Southbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	2	0	0	0	2	1	0	0	1	2	4
1:00 AM	2	2	0	1	5	1	2	0	1	4	9
2:00 AM	1	0	0	0	1	0	0	0	1	1	2
3:00 AM	2	0	1	0	3	2	0	1	3	6	9
4:00 AM	0	0	1	3	4	0	3	2	4	9	13
5:00 AM	3	6	9	20	38	4	9	14	10	37	75
6:00 AM	9	15	11	13	48	16	13	20	16	65	113
7:00 AM	13	20	14	24	71	27	28	17	23	95	166
8:00 AM	23	12	7	14	56	22	11	5	15	53	109
9:00 AM	9	17	7	16	49	14	10	11	11	46	95
10:00 AM	9	15	5	15	44	13	6	10	7	36	80
11:00 AM	6	6	10	12	34	5	11	9	11	36	70
12:00 PM	9	10	7	13	39	8	11	7	8	34	73
1:00 PM	8	16	15	5	44	7	15	6	11	39	83
2:00 PM	6	19	15	15	55	8	24	12	11	55	110
3:00 PM	8	17	21	20	66	12	14	8	13	47	113
4:00 PM	16	18	22	14	70	24	16	14	21	75	145
5:00 PM	29	19	11	21	80	22	7	15	7	51	131
6:00 PM	14	21	19	11	65	12	14	18	9	53	118
7:00 PM	10	11	7	8	36	6	8	5	5	24	60
8:00 PM	5	6	3	6	20	4	7	6	4	21	41
9:00 PM	6	0	5	4	15	9	4	2	4	19	34
10:00 PM	4	3	7	2	16	6	4	4	1	15	31
11:00 PM	1	3	1	1	6	2	3	0	1	6	12
Total	51.1%				867	48.9%				829	
	1696										

**AM%** 43.9% **AM Peak** 171 **7:15 am to 8:15 am** **AM P.H.F.** 0.89  
**PM%** 56.1% **PM Peak** 156 **4:15 pm to 5:15 pm** **PM P.H.F.** 0.76







**Metro Traffic Data Inc.**  
 310 N. Irwin Street - Suite 20  
 Hanford, CA 93230  
 800-975-6938 Phone/Fax  
 www.metrotrafficdata.com

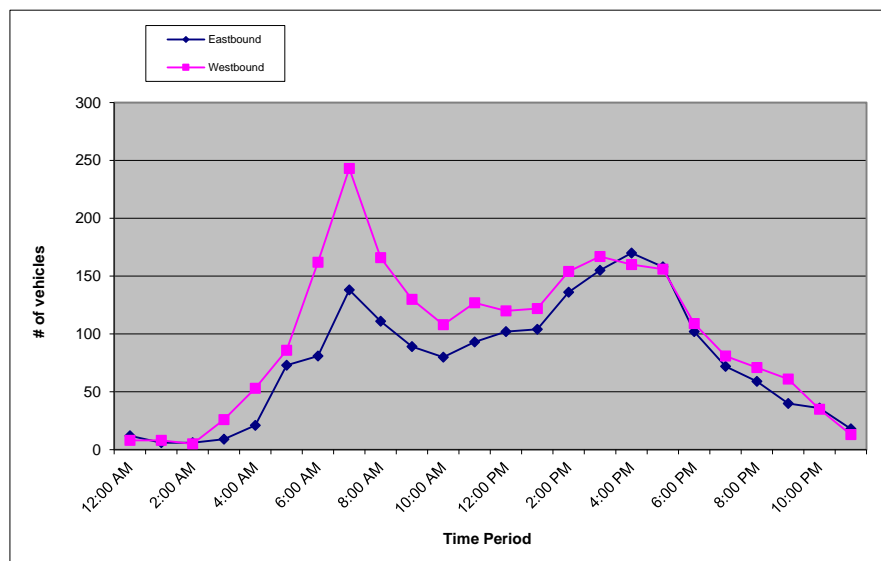
# 24 Hour Count Report

Prepared For: **Peters Engineering Group**  
 952 Pollasky Avenue  
 Clovis, CA 93612

**STREET** SR-99 NB Ramps **LATITUDE** 36.2973879  
**SEGMENT** West of Drive 88 **LONGITUDE** -119.3827146  
**COLLECTION DATE** Tuesday, August 28, 2018 **WEATHER** Clear  
**NUMBER OF LANES** 2

	Eastbound					Westbound					Hourly
Hour	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	Totals
12:00 AM	4	3	3	2	12	3	1	1	3	8	20
1:00 AM	1	3	1	1	6	4	2	0	2	8	14
2:00 AM	3	0	1	2	6	1	2	0	2	5	11
3:00 AM	5	0	4	0	9	3	1	12	10	26	35
4:00 AM	3	3	8	7	21	12	11	12	18	53	74
5:00 AM	8	11	22	32	73	19	22	21	24	86	159
6:00 AM	15	22	19	25	81	37	36	43	46	162	243
7:00 AM	17	27	23	71	138	57	63	64	59	243	381
8:00 AM	39	19	25	28	111	57	48	30	31	166	277
9:00 AM	24	17	15	33	89	30	33	29	38	130	219
10:00 AM	14	22	22	22	80	31	24	20	33	108	188
11:00 AM	22	19	19	33	93	34	31	28	34	127	220
12:00 PM	22	34	26	20	102	21	31	25	43	120	222
1:00 PM	23	23	27	31	104	33	33	26	30	122	226
2:00 PM	21	35	42	38	136	34	48	46	26	154	290
3:00 PM	31	39	45	40	155	34	35	48	50	167	322
4:00 PM	46	32	53	39	170	41	39	40	40	160	330
5:00 PM	46	35	33	44	158	46	40	48	22	156	314
6:00 PM	25	27	33	17	102	28	29	28	24	109	211
7:00 PM	17	24	16	15	72	27	25	13	16	81	153
8:00 PM	13	17	18	11	59	14	19	19	19	71	130
9:00 PM	10	9	16	5	40	25	12	9	15	61	101
10:00 PM	11	7	10	8	36	17	9	5	4	35	71
11:00 PM	7	7	3	1	18	7	1	3	2	13	31
Total	44.1%				1871	55.9%				2371	
	4242										

**AM%** 43.4% **AM Peak** 403 **7:15 am to 8:15 am** **AM P.H.F.** 0.78  
**PM%** 56.6% **PM Peak** 344 **3:15 pm to 4:15 pm** **PM P.H.F.** 0.92





APPENDIX B  
TULARE COUNTY TRAVEL MODEL

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APPENDIX C  
INTERSECTION ANALYSIS SHEETS

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Intersection

Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	51	25	27	45	77	17	39	44	51	28	6
Future Vol, veh/h	7	51	25	27	45	77	17	39	44	51	28	6
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.86	0.86	0.86	0.85	0.85	0.85
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	10	71	35	38	63	107	20	45	51	60	33	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8.9	8.5	8.8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	8%	18%	60%
Vol Thru, %	39%	61%	30%	33%
Vol Right, %	44%	30%	52%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	83	149	85
LT Vol	17	7	27	51
Through Vol	39	51	45	28
RT Vol	44	25	77	6
Lane Flow Rate	116	115	207	100
Geometry Grp	1	1	1	1
Degree of Util (X)	0.15	0.148	0.253	0.138
Departure Headway (Hd)	4.652	4.616	4.407	4.973
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	769	776	813	719
Service Time	2.692	2.652	2.439	3.015
HCM Lane V/C Ratio	0.151	0.148	0.255	0.139
HCM Control Delay	8.5	8.5	8.9	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.5	1	0.5



Intersection

Int Delay, s/veh 6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱			↰						↰↱	
Traffic Vol, veh/h	0	148	32	127	170	0	0	0	0	118	2	26
Future Vol, veh/h	0	148	32	127	170	0	0	0	0	118	2	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	83	83	92	92	92	92	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	211	46	153	205	0	0	0	0	126	2	28

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	257	0	0	745	768	205
Stage 1	-	-	-	-	-	-	511	511	-
Stage 2	-	-	-	-	-	-	234	257	-
Critical Hdwy	-	-	-	4.14	-	-	6.44	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	5.44	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.44	5.54	-
Follow-up Hdwy	-	-	-	2.236	-	-	3.536	4.036	3.336
Pot Cap-1 Maneuver	0	-	-	1296	-	0	379	330	831
Stage 1	0	-	-	-	-	0	598	534	-
Stage 2	0	-	-	-	-	0	800	691	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1296	-	-	329	0	831
Mov Cap-2 Maneuver	-	-	-	-	-	-	329	0	-
Stage 1	-	-	-	-	-	-	518	0	-
Stage 2	-	-	-	-	-	-	800	0	-







Approach	EB	WB	SB
HCM Control Delay, s	0	3.5	21.7
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1296	-	369
HCM Lane V/C Ratio	-	-	0.118	-	0.421
HCM Control Delay (s)	-	-	8.1	0	21.7
HCM Lane LOS	-	-	A	A	C
HCM 95th %tile Q(veh)	-	-	0.4	-	2



Intersection

Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	159	96	147	220	2	62	14	83	1	4	13
Future Vol, veh/h	11	159	96	147	220	2	62	14	83	1	4	13
Peak Hour Factor	0.83	0.83	0.83	0.94	0.94	0.94	0.55	0.55	0.55	0.88	0.88	0.88
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	192	116	156	234	2	113	25	151	1	5	15
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1




Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	12.8	15.9	11.2	9.4
HCM LOS	B	C	B	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	82%	0%	4%	40%	20%	0%
Vol Thru, %	18%	0%	60%	60%	80%	0%
Vol Right, %	0%	100%	36%	1%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	76	83	266	369	5	13
LT Vol	62	0	11	147	1	0
Through Vol	14	0	159	220	4	0
RT Vol	0	83	96	2	0	13
Lane Flow Rate	138	151	320	393	6	15
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.264	0.241	0.466	0.588	0.011	0.026
Departure Headway (Hd)	6.876	5.746	5.235	5.395	7.117	6.296
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	522	625	686	667	501	566
Service Time	4.619	3.488	3.274	3.432	4.881	4.06
HCM Lane V/C Ratio	0.264	0.242	0.466	0.589	0.012	0.027
HCM Control Delay	12.1	10.3	12.8	15.9	10	9.2
HCM Lane LOS	B	B	B	C	A	A
HCM 95th-tile Q	1.1	0.9	2.5	3.8	0	0.1



Intersection

Int Delay, s/veh 3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	121	15	75	168	42	39
Future Vol, veh/h	121	15	75	168	42	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	54	54	95	95	84	84
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	224	28	79	177	50	46

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	252
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.236
Pot Cap-1 Maneuver	-	-	1302
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1302
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-





Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	566	-	-	1302	-
HCM Lane V/C Ratio	0.17	-	-	0.061	-
HCM Control Delay (s)	12.7	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-



Intersection

Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	62	22	9	84	13	12	22	36	31	38	5
Future Vol, veh/h	18	62	22	9	84	13	12	22	36	31	38	5
Peak Hour Factor	0.85	0.85	0.85	0.80	0.80	0.80	0.76	0.76	0.76	0.80	0.80	0.80
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	21	73	26	11	105	16	16	29	47	39	48	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8.6	8.1	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	18%	8%	42%
Vol Thru, %	31%	61%	79%	51%
Vol Right, %	51%	22%	12%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	102	106	74
LT Vol	12	18	9	31
Through Vol	22	62	84	38
RT Vol	36	22	13	5
Lane Flow Rate	92	120	132	92
Geometry Grp	1	1	1	1
Degree of Util (X)	0.115	0.152	0.169	0.124
Departure Headway (Hd)	4.504	4.57	4.593	4.815
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	796	785	782	745
Service Time	2.53	2.596	2.617	2.841
HCM Lane V/C Ratio	0.116	0.153	0.169	0.123
HCM Control Delay	8.1	8.4	8.6	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.5	0.6	0.4









Intersection												
Int Delay, s/veh	8.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱			↰						↕	
Traffic Vol, veh/h	0	135	35	101	101	0	0	0	0	183	4	8
Future Vol, veh/h	0	135	35	101	101	0	0	0	0	183	4	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	80	80	80	92	92	92	89	89	89
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	150	39	126	126	0	0	0	0	206	4	9
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	0	189	0	0				548	568	126
Stage 1	-	-	-	-	-	-				379	379	-
Stage 2	-	-	-	-	-	-				169	189	-
Critical Hdwy	-	-	-	4.14	-	-				6.44	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-				5.44	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.44	5.54	-
Follow-up Hdwy	-	-	-	2.236	-	-				3.536	4.036	3.336
Pot Cap-1 Maneuver	0	-	-	1373	-	0				494	430	919
Stage 1	0	-	-	-	-	0				688	611	-
Stage 2	0	-	-	-	-	0				856	740	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1373	-	-				445	0	919
Mov Cap-2 Maneuver	-	-	-	-	-	-				445	0	-
Stage 1	-	-	-	-	-	-				620	0	-
Stage 2	-	-	-	-	-	-				856	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0			3.9			20					
HCM LOS							C					
Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1							
Capacity (veh/h)	-	-	1373	-	455							
HCM Lane V/C Ratio	-	-	0.092	-	0.482							
HCM Control Delay (s)	-	-	7.9	0	20							
HCM Lane LOS	-	-	A	A	C							
HCM 95th %tile Q(veh)	-	-	0.3	-	2.6							



Intersection

Intersection Delay, s/veh	11.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	276	42	113	135	1	48	7	119	1	10	24
Future Vol, veh/h	5	276	42	113	135	1	48	7	119	1	10	24
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.84	0.84	0.84	0.88	0.88	0.88
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	5	291	44	131	157	1	57	8	142	1	11	27
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1




Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	12.4	12	10	9
HCM LOS	B	B	A	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	87%	0%	2%	45%	9%	0%
Vol Thru, %	13%	0%	85%	54%	91%	0%
Vol Right, %	0%	100%	13%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	55	119	323	249	11	24
LT Vol	48	0	5	113	1	0
Through Vol	7	0	276	135	10	0
RT Vol	0	119	42	1	0	24
Lane Flow Rate	65	142	340	290	12	27
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.121	0.217	0.473	0.42	0.023	0.044
Departure Headway (Hd)	6.676	5.52	5.008	5.226	6.584	5.823
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	538	650	724	692	543	614
Service Time	4.412	3.255	3.017	3.236	4.328	3.567
HCM Lane V/C Ratio	0.121	0.218	0.47	0.419	0.022	0.044
HCM Control Delay	10.3	9.8	12.4	12	9.5	8.8
HCM Lane LOS	B	A	B	B	A	A
HCM 95th-tile Q	0.4	0.8	2.6	2.1	0.1	0.1



Intersection

Int Delay, s/veh 3.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	132	23	50	115	45	38
Future Vol, veh/h	132	23	50	115	45	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	90	90	72	72
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	153	27	56	128	63	53

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	180
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.236
Pot Cap-1 Maneuver	-	-	1384
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1384
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	678	-	-	1384	-
HCM Lane V/C Ratio	0.17	-	-	0.04	-
HCM Control Delay (s)	11.4	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-







Intersection

Intersection Delay, s/veh

9

Intersection LOS




A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	65	25	27	59	77	17	39	44	51	28	6
Future Vol, veh/h	7	65	25	27	59	77	17	39	44	51	28	6
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.86	0.86	0.86	0.85	0.85	0.85
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	10	90	35	38	82	107	20	45	51	60	33	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	9.3	8.7	9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	7%	17%	60%
Vol Thru, %	39%	67%	36%	33%
Vol Right, %	44%	26%	47%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	100	97	163	85
LT Vol	17	7	27	51
Through Vol	39	65	59	28
RT Vol	44	25	77	6
Lane Flow Rate	116	135	226	100
Geometry Grp	1	1	1	1
Degree of Util (X)	0.153	0.175	0.281	0.141
Departure Headway (Hd)	4.749	4.672	4.463	5.071
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	751	765	804	704
Service Time	2.8	2.716	2.501	3.123
HCM Lane V/C Ratio	0.154	0.176	0.281	0.142
HCM Control Delay	8.7	8.7	9.3	9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.5	0.6	1.2	0.5









Intersection												
Int Delay, s/veh	8.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	225	81	127	247	0	0	0	0	118	2	75
Future Vol, veh/h	0	225	81	127	247	0	0	0	0	118	2	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	83	83	92	92	92	92	94	94	94
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	321	116	153	298	0	0	0	0	126	2	80
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	0	437	0	0				983	1041	298
Stage 1	-	-	-	-	-	-				604	604	-
Stage 2	-	-	-	-	-	-				379	437	-
Critical Hdwy	-	-	-	4.14	-	-				6.44	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-				5.44	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.44	5.54	-
Follow-up Hdwy	-	-	-	2.236	-	-				3.536	4.036	3.336
Pot Cap-1 Maneuver	0	-	-	1112	-	0				274	228	737
Stage 1	0	-	-	-	-	0				542	485	-
Stage 2	0	-	-	-	-	0				688	576	-
Platoon blocked, %		-	-		-							
Mov Cap-1 Maneuver	-	-	-	1112	-	-				229	0	737
Mov Cap-2 Maneuver	-	-	-	-	-	-				229	0	-
Stage 1	-	-	-	-	-	-				453	0	-
Stage 2	-	-	-	-	-	-				688	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0			3			36.5					
HCM LOS							E					
Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1							
Capacity (veh/h)	-	-	1112	-	313							
HCM Lane V/C Ratio	-	-	0.138	-	0.663							
HCM Control Delay (s)	-	-	8.8	0	36.5							
HCM Lane LOS	-	-	A	A	E							
HCM 95th %tile Q(veh)	-	-	0.5	-	4.4							



Intersection

Intersection Delay, s/veh	18.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	187	145	147	248	2	111	14	83	1	4	13
Future Vol, veh/h	11	187	145	147	248	2	111	14	83	1	4	13
Peak Hour Factor	0.83	0.83	0.83	0.94	0.94	0.94	0.55	0.55	0.55	0.88	0.88	0.88
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	225	175	156	264	2	202	25	151	1	5	15
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1




Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	18.6	21.4	14.3	10.3
HCM LOS	C	C	B	B

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	89%	0%	3%	37%	20%	0%
Vol Thru, %	11%	0%	55%	62%	80%	0%
Vol Right, %	0%	100%	42%	1%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	125	83	343	397	5	13
LT Vol	111	0	11	147	1	0
Through Vol	14	0	187	248	4	0
RT Vol	0	83	145	2	0	13
Lane Flow Rate	227	151	413	422	6	15
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.463	0.259	0.647	0.693	0.013	0.029
Departure Headway (Hd)	7.341	6.168	5.64	5.911	7.997	7.169
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	489	578	636	608	450	502
Service Time	5.121	3.947	3.717	3.988	5.697	4.869
HCM Lane V/C Ratio	0.464	0.261	0.649	0.694	0.013	0.03
HCM Control Delay	16.4	11.1	18.6	21.4	10.8	10.1
HCM Lane LOS	C	B	C	C	B	B
HCM 95th-tile Q	2.4	1	4.7	5.5	0	0.1



Intersection

Int Delay, s/veh 2.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	170	15	75	217	42	39
Future Vol, veh/h	170	15	75	217	42	39
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	54	54	95	95	84	84
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	315	28	79	228	50	46

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	343
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.14
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.236
Pot Cap-1 Maneuver	-	-	1205
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1205
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-





Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	475	-	-	1205	-
HCM Lane V/C Ratio	0.203	-	-	0.066	-
HCM Control Delay (s)	14.5	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.2	-



Intersection

Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	66	22	9	91	13	12	22	36	31	38	5
Future Vol, veh/h	18	66	22	9	91	13	12	22	36	31	38	5
Peak Hour Factor	0.85	0.85	0.85	0.80	0.80	0.80	0.76	0.76	0.76	0.80	0.80	0.80
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	21	78	26	11	114	16	16	29	47	39	48	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	8.7	8.2	8.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	17%	17%	8%	42%
Vol Thru, %	31%	62%	81%	51%
Vol Right, %	51%	21%	12%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	106	113	74
LT Vol	12	18	9	31
Through Vol	22	66	91	38
RT Vol	36	22	13	5
Lane Flow Rate	92	125	141	92
Geometry Grp	1	1	1	1
Degree of Util (X)	0.116	0.159	0.181	0.125
Departure Headway (Hd)	4.537	4.586	4.604	4.848
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	789	782	780	739
Service Time	2.568	2.614	2.631	2.878
HCM Lane V/C Ratio	0.117	0.16	0.181	0.124
HCM Control Delay	8.2	8.5	8.7	8.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.6	0.7	0.4



Intersection

Int Delay, s/veh 8.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱			↰						↰↱	
Traffic Vol, veh/h	0	176	61	101	121	0	0	0	0	183	4	20
Future Vol, veh/h	0	176	61	101	121	0	0	0	0	183	4	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	-	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	80	80	80	92	92	92	89	89	89
Heavy Vehicles, %	4	4	4	4	4	4	4	4	4	4	4	4
Mvmt Flow	0	196	68	126	151	0	0	0	0	206	4	22







Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	0	263	0	0	633	667	151
Stage 1	-	-	-	-	-	-	404	404	-
Stage 2	-	-	-	-	-	-	229	263	-
Critical Hdwy	-	-	-	4.14	-	-	6.44	6.54	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	5.44	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.44	5.54	-
Follow-up Hdwy	-	-	-	2.236	-	-	3.536	4.036	3.336
Pot Cap-1 Maneuver	0	-	-	1290	-	0	441	377	890
Stage 1	0	-	-	-	-	0	670	596	-
Stage 2	0	-	-	-	-	0	804	687	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1290	-	-	394	0	890
Mov Cap-2 Maneuver	-	-	-	-	-	-	394	0	-
Stage 1	-	-	-	-	-	-	598	0	-
Stage 2	-	-	-	-	-	-	804	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	3.7	24
HCM LOS			C

Minor Lane/Major Mvmt	EBT	EBR	WBL	WBT	SBLn1
Capacity (veh/h)	-	-	1290	-	417
HCM Lane V/C Ratio	-	-	0.098	-	0.558
HCM Control Delay (s)	-	-	8.1	0	24
HCM Lane LOS	-	-	A	A	C
HCM 95th %tile Q(veh)	-	-	0.3	-	3.3




Intersection	
Intersection Delay, s/veh	12.4
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	291	68	113	142	1	61	7	119	1	10	24
Future Vol, veh/h	5	291	68	113	142	1	61	7	119	1	10	24
Peak Hour Factor	0.95	0.95	0.95	0.86	0.86	0.86	0.84	0.84	0.84	0.88	0.88	0.88
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	5	306	72	131	165	1	73	8	142	1	11	27
Number of Lanes	0	1	0	0	1	0	0	1	1	0	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	1	1
HCM Control Delay	13.8	12.5	10.3	9.3
HCM LOS	B	B	B	A

Lane	NBLn1	NBLn2	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	90%	0%	1%	44%	9%	0%
Vol Thru, %	10%	0%	80%	55%	91%	0%
Vol Right, %	0%	100%	19%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	68	119	364	256	11	24
LT Vol	61	0	5	113	1	0
Through Vol	7	0	291	142	10	0
RT Vol	0	119	68	1	0	24
Lane Flow Rate	81	142	383	298	12	27
Geometry Grp	7	7	2	2	7	7
Degree of Util (X)	0.154	0.223	0.537	0.441	0.024	0.046
Departure Headway (Hd)	6.835	5.664	5.042	5.336	6.783	6.02
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	525	633	717	676	527	593
Service Time	4.575	3.404	3.075	3.373	4.535	3.771
HCM Lane V/C Ratio	0.154	0.224	0.534	0.441	0.023	0.046
HCM Control Delay	10.8	10	13.8	12.5	9.7	9.1
HCM Lane LOS	B	A	B	B	A	A
HCM 95th-tile Q	0.5	0.8	3.2	2.3	0.1	0.1







Intersection						
Int Delay, s/veh	3.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	145	23	50	141	45	38
Future Vol, veh/h	145	23	50	141	45	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	86	86	90	90	72	72
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	169	27	56	157	63	53
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	195	0	450	182
Stage 1	-	-	-	-	182	-
Stage 2	-	-	-	-	268	-
Critical Hdwy	-	-	4.14	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.236	-	3.536	3.336
Pot Cap-1 Maneuver	-	-	1366	-	563	855
Stage 1	-	-	-	-	844	-
Stage 2	-	-	-	-	772	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1366	-	538	855
Mov Cap-2 Maneuver	-	-	-	-	538	-
Stage 1	-	-	-	-	844	-
Stage 2	-	-	-	-	737	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		2		11.8	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	648	-	-	1366	-	
HCM Lane V/C Ratio	0.178	-	-	0.041	-	
HCM Control Delay (s)	11.8	-	-	7.7	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-	



Intersection

Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	112	31	36	100	96	21	74	56	63	55	7
Future Vol, veh/h	9	112	31	36	100	96	21	74	56	63	55	7
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.86	0.86	0.86	0.85	0.85	0.85
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	13	156	43	50	139	133	24	86	65	74	65	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.8	12.2	10.5	10.6
HCM LOS	B	B	B	B


Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	14%	6%	16%	50%
Vol Thru, %	49%	74%	43%	44%
Vol Right, %	37%	20%	41%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	151	152	232	125
LT Vol	21	9	36	63
Through Vol	74	112	100	55
RT Vol	56	31	96	7
Lane Flow Rate	176	211	322	147
Geometry Grp	1	1	1	1
Degree of Util (X)	0.268	0.312	0.453	0.237
Departure Headway (Hd)	5.49	5.32	5.059	5.794
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	653	676	712	619
Service Time	3.533	3.359	3.094	3.84
HCM Lane V/C Ratio	0.27	0.312	0.452	0.237
HCM Control Delay	10.5	10.8	12.2	10.6
HCM Lane LOS	B	B	B	B
HCM 95th-tile Q	1.1	1.3	2.4	0.9



2: SR-99 SB & Ave 280  
HCM 2010 Signalized Intersection Summary






Cumulative 2040 With Project (PCE)-AM

09/28/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑↑					↑	↑	
Traffic Volume (veh/h)	0	477	89	483	328	0	0	0	0	462	2	107
Future Volume (veh/h)	0	477	89	483	328	0	0	0	0	462	2	107
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1827	1900	1827	1827	0				1827	1827	1900
Adj Flow Rate, veh/h	0	518	97	525	357	0				310	271	116
Adj No. of Lanes	0	2	0	2	2	0				1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	800	149	698	1928	0				513	358	153
Arrive On Green	0.00	0.27	0.27	0.21	0.56	0.00				0.30	0.30	0.30
Sat Flow, veh/h	0	3013	545	3375	3563	0				1740	1215	520
Grp Volume(v), veh/h	0	307	308	525	357	0				310	0	387
Grp Sat Flow(s), veh/h/ln	0	1736	1731	1688	1736	0				1740	0	1735
Q Serve(g_s), s	0.0	9.4	9.5	8.8	3.1	0.0				9.2	0.0	12.2
Cycle Q Clear(g_c), s	0.0	9.4	9.5	8.8	3.1	0.0				9.2	0.0	12.2
Prop In Lane	0.00		0.31	1.00		0.00				1.00		0.30
Lane Grp Cap(c), veh/h	0	475	474	698	1928	0				513	0	512
V/C Ratio(X)	0.00	0.65	0.65	0.75	0.19	0.00				0.60	0.00	0.76
Avail Cap(c_a), veh/h	0	851	849	1543	3549	0				1143	0	1140
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	19.3	19.3	22.4	6.6	0.0				18.2	0.0	19.2
Incr Delay (d2), s/veh	0.0	1.5	1.5	1.7	0.0	0.0				1.1	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.6	4.7	4.2	1.5	0.0				4.6	0.0	6.1
LnGrp Delay(d),s/veh	0.0	20.7	20.8	24.1	6.7	0.0				19.3	0.0	21.5
LnGrp LOS		C	C	C	A					B		C
Approach Vol, veh/h		615			882						697	
Approach Delay, s/veh		20.8			17.0						20.6	
Approach LOS		C			B						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			16.9	21.0		22.2		37.9				
Change Period (Y+Rc), s			4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s			27.5	29.5		39.5		61.5				
Max Q Clear Time (g_c+I1), s			10.8	11.5		14.2		5.1				
Green Ext Time (p_c), s			1.7	5.0		3.6		6.0				
Intersection Summary												
HCM 2010 Ctrl Delay			19.2									
HCM 2010 LOS			B									
Notes												



## Queues

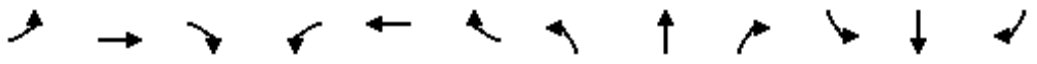
					
Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	615	525	357	316	304
v/c Ratio	0.67	0.64	0.18	0.65	0.62
Control Delay	28.9	31.2	8.4	31.3	27.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	28.9	31.2	8.4	31.3	27.5
Queue Length 50th (ft)	121	107	34	127	107
Queue Length 95th (ft)	245	217	79	276	246
Internal Link Dist (ft)	1834		700		949
Turn Bay Length (ft)		500			
Base Capacity (vph)	1464	1346	2899	947	925
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.42	0.39	0.12	0.33	0.33
Intersection Summary					









3: SR-99 NB & Ave 280  
HCM 2010 Signalized Intersection Summary

Cumulative 2040 With Project (PCE)-AM

09/28/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑	↑		↑	↑			
Traffic Volume (veh/h)	0	835	189	0	728	423	178	0	386	0	0	0
Future Volume (veh/h)	0	835	189	0	728	423	178	0	386	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1845	1845	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	0	908	205	0	791	460	193	170	306			
Adj No. of Lanes	0	2	1	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	3	3	0	3	3	3	3	3			
Cap, veh/h	0	1961	877	0	1961	877	269	237	441			
Arrive On Green	0.00	0.56	0.56	0.00	0.56	0.56	0.28	0.28	0.28			
Sat Flow, veh/h	0	3597	1568	0	3597	1568	955	842	1568			
Grp Volume(v), veh/h	0	908	205	0	791	460	363	0	306			
Grp Sat Flow(s),veh/h/ln	0	1752	1568	0	1752	1568	1797	0	1568			
Q Serve(g_s), s	0.0	8.7	3.8	0.0	7.3	10.4	10.3	0.0	9.9			
Cycle Q Clear(g_c), s	0.0	8.7	3.8	0.0	7.3	10.4	10.3	0.0	9.9			
Prop In Lane	0.00		1.00	0.00		1.00	0.53		1.00			
Lane Grp Cap(c), veh/h	0	1961	877	0	1961	877	506	0	441			
V/C Ratio(X)	0.00	0.46	0.23	0.00	0.40	0.52	0.72	0.00	0.69			
Avail Cap(c_a), veh/h	0	3312	1482	0	3312	1482	1508	0	1315			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	7.4	6.3	0.0	7.1	7.8	18.3	0.0	18.2			
Incr Delay (d2), s/veh	0.0	0.2	0.1	0.0	0.1	0.5	1.9	0.0	2.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	4.2	1.6	0.0	3.4	4.5	5.3	0.0	4.5			
LnGrp Delay(d),s/veh	0.0	7.6	6.5	0.0	7.2	8.3	20.2	0.0	20.1			
LnGrp LOS		A	A		A	A	C		C			
Approach Vol, veh/h		1113			1251			669				
Approach Delay, s/veh		7.4			7.6			20.2				
Approach LOS		A			A			C				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		20.4		36.2				36.2				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		47.5		53.5				53.5				
Max Q Clear Time (g_c+I1), s		12.3		10.7				12.4				
Green Ext Time (p_c), s		3.6		19.6				19.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay				10.3								
HCM 2010 LOS				B								
<b>Notes</b>												



						
Lane Group	EBT	EBR	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	908	205	791	460	315	298
v/c Ratio	0.59	0.26	0.51	0.48	0.54	0.52
Control Delay	11.9	3.1	11.1	3.1	15.5	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.9	3.1	11.1	3.1	15.5	12.5
Queue Length 50th (ft)	81	2	68	0	55	40
Queue Length 95th (ft)	183	34	154	43	156	127
Internal Link Dist (ft)	700		1833		141	
Turn Bay Length (ft)		150		150		
Base Capacity (vph)	3361	1511	3361	1522	1479	1381
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.14	0.24	0.30	0.21	0.22
Intersection Summary						



Intersection

Intersection Delay, s/veh	9.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	22	123	27	12	168	16	15	31	50	38	51	6
Future Vol, veh/h	22	123	27	12	168	16	15	31	50	38	51	6
Peak Hour Factor	0.85	0.85	0.85	0.80	0.80	0.80	0.76	0.76	0.76	0.80	0.80	0.80
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	26	145	32	15	210	20	20	41	66	48	64	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.9	10.5	9.2	9.6
HCM LOS	A	B	A	A


















Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	13%	6%	40%
Vol Thru, %	32%	72%	86%	54%
Vol Right, %	52%	16%	8%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	172	196	95
LT Vol	15	22	12	38
Through Vol	31	123	168	51
RT Vol	50	27	16	6
Lane Flow Rate	126	202	245	119
Geometry Grp	1	1	1	1
Degree of Util (X)	0.177	0.278	0.335	0.177
Departure Headway (Hd)	5.048	4.94	4.917	5.374
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	704	720	725	661
Service Time	3.135	3.015	2.989	3.462
HCM Lane V/C Ratio	0.179	0.281	0.338	0.18
HCM Control Delay	9.2	9.9	10.5	9.6
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.6	1.1	1.5	0.6








2: SR-99 SB & Ave 280  
HCM 2010 Signalized Intersection Summary

Cumulative 2040 With Project (PCE)-PM

09/28/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	416	70	670	357	0	0	0	0	843	5	76
Future Volume (veh/h)	0	416	70	670	357	0	0	0	0	843	5	76
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1827	1900	1827	1827	0				1827	1827	1900
Adj Flow Rate, veh/h	0	452	76	728	388	0				997	0	0
Adj No. of Lanes	0	2	0	2	2	0				2	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	627	105	878	1845	0				1207	633	0
Arrive On Green	0.00	0.21	0.21	0.26	0.53	0.00				0.35	0.00	0.00
Sat Flow, veh/h	0	3068	498	3375	3563	0				3480	1827	0
Grp Volume(v), veh/h	0	262	266	728	388	0				997	0	0
Grp Sat Flow(s),veh/h/ln	0	1736	1739	1688	1736	0				1740	1827	0
Q Serve(g_s), s	0.0	10.4	10.5	15.1	4.4	0.0				19.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	10.4	10.5	15.1	4.4	0.0				19.4	0.0	0.0
Prop In Lane	0.00		0.29	1.00		0.00				1.00		0.00
Lane Grp Cap(c), veh/h	0	366	366	878	1845	0				1207	633	0
V/C Ratio(X)	0.00	0.72	0.72	0.83	0.21	0.00				0.83	0.00	0.00
Avail Cap(c_a), veh/h	0	481	482	1345	2556	0				2186	1148	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	27.2	27.2	25.8	9.1	0.0				22.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	3.5	3.7	2.7	0.1	0.0				1.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.3	5.4	7.3	2.1	0.0				9.5	0.0	0.0
LnGrp Delay(d),s/veh	0.0	30.7	30.9	28.5	9.2	0.0				23.6	0.0	0.0
LnGrp LOS		C	C	C	A					C		
Approach Vol, veh/h		528			1116						997	
Approach Delay, s/veh		30.8			21.8						23.6	
Approach LOS		C			C						C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			23.8	20.1		30.2		43.9				
Change Period (Y+Rc), s			4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s			29.5	20.5		46.5		54.5				
Max Q Clear Time (g_c+I1), s			17.1	12.5		21.4		6.4				
Green Ext Time (p_c), s			2.2	3.1		4.3		5.6				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			24.3									
HCM 2010 LOS			C									
<b>Notes</b>												



					
Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	528	728	388	504	500
v/c Ratio	0.78	0.82	0.22	0.79	0.79
Control Delay	45.5	42.2	14.0	35.8	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	45.5	42.2	14.0	35.8	35.1
Queue Length 50th (ft)	162	223	67	290	282
Queue Length 95th (ft)	#264	319	109	444	434
Internal Link Dist (ft)	1834		700		949
Turn Bay Length (ft)		500			
Base Capacity (vph)	789	1109	2113	856	848
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.67	0.66	0.18	0.59	0.59

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.




### 3: SR-99 NB & Ave 280







#### HCM 2010 Signalized Intersection Summary

Cumulative 2040 With Project (PCE)-PM

09/28/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑	↑		↑	↑			
Traffic Volume (veh/h)	0	1158	116	0	868	789	150	0	636	0	0	0
Future Volume (veh/h)	0	1158	116	0	868	789	150	0	636	0	0	0
Number	7	4	14	3	8	18	5	2	12			
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Adj Sat Flow, veh/h/ln	0	1845	1845	0	1845	1845	1900	1845	1845			
Adj Flow Rate, veh/h	0	1259	126	0	943	858	163	396	427			
Adj No. of Lanes	0	2	1	0	2	1	0	1	1			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	3	3	0	3	3	3	3	3			
Cap, veh/h	0	1958	876	0	1958	876	187	454	553			
Arrive On Green	0.00	0.56	0.56	0.00	0.56	0.56	0.35	0.35	0.35			
Sat Flow, veh/h	0	3597	1568	0	3597	1568	530	1288	1568			
Grp Volume(v), veh/h	0	1259	126	0	943	858	559	0	427			
Grp Sat Flow(s),veh/h/ln	0	1752	1568	0	1752	1568	1818	0	1568			
Q Serve(g_s), s	0.0	25.0	3.9	0.0	16.4	53.9	29.1	0.0	24.5			
Cycle Q Clear(g_c), s	0.0	25.0	3.9	0.0	16.4	53.9	29.1	0.0	24.5			
Prop In Lane	0.00		1.00	0.00		1.00	0.29		1.00			
Lane Grp Cap(c), veh/h	0	1958	876	0	1958	876	641	0	553			
V/C Ratio(X)	0.00	0.64	0.14	0.00	0.48	0.98	0.87	0.00	0.77			
Avail Cap(c_a), veh/h	0	1958	876	0	1958	876	800	0	690			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	0.0	15.4	10.7	0.0	13.5	21.8	30.6	0.0	29.1			
Incr Delay (d2), s/veh	0.0	0.7	0.1	0.0	0.2	25.4	8.8	0.0	4.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.0	12.3	1.7	0.0	7.9	29.3	16.2	0.0	11.2			
LnGrp Delay(d),s/veh	0.0	16.1	10.8	0.0	13.7	47.1	39.4	0.0	33.4			
LnGrp LOS		B	B		B	D	D		C			
Approach Vol, veh/h		1385			1801			986				
Approach Delay, s/veh		15.6			29.6			36.8				
Approach LOS		B			C			D				
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		40.1		61.0				61.0				
Change Period (Y+Rc), s		4.5		4.5				4.5				
Max Green Setting (Gmax), s		44.5		56.5				56.5				
Max Q Clear Time (g_c+I1), s		31.1		27.0				55.9				
Green Ext Time (p_c), s		4.6		23.0				0.5				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			26.7									
HCM 2010 LOS			C									
<b>Notes</b>												



						
Lane Group	EBT	EBR	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	1259	126	943	858	432	422
v/c Ratio	0.73	0.15	0.55	0.72	0.71	0.72
Control Delay	18.8	5.4	15.3	5.7	26.6	27.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	5.4	15.3	5.7	26.6	27.6
Queue Length 50th (ft)	219	8	143	9	149	147
Queue Length 95th (ft)	421	42	282	98	354	353
Internal Link Dist (ft)	700		1833		141	
Turn Bay Length (ft)		150		150		
Base Capacity (vph)	2732	1242	2732	1401	1037	991
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.10	0.35	0.61	0.42	0.43
Intersection Summary						



APPENDIX D  
TRAFFIC SIGNAL WARRANTS WORKSHEETS

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**Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)**

COUNT DATE 8-28-18  
 CALC JR DATE 9-26-18  
 CHK \_\_\_\_\_ DATE \_\_\_\_\_  
 DIST \_\_\_\_\_ CO \_\_\_\_\_ RTE \_\_\_\_\_ PM \_\_\_\_\_  
 Major St: AVE 280 Critical Approach Speed > 40 mph  
 Minor St: RD 68 Critical Approach Speed \_\_\_\_\_ mph

Speed limit or critical speed on major street traffic > 40 mph..... ☒   
 or   
 In built up area of isolated community of < 10,000 population..... ☐ } **RURAL (R)**  
☐ **URBAN (U)**

**WARRANT 1 - Eight Hour Vehicular Volume** SATISFIED YES ☐ NO ☒  
 (Condition A or Condition B or combination of A and B must be satisfied)

**Condition A - Minimum Vehicle Volume** 100% SATISFIED YES ☐ NO ☒  
 80% SATISFIED YES ☐ NO ☒

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)					
	U	R	U	R	
APPROACH LANES	1		2 or More		
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)	
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	

NONE

**Condition B - Interruption of Continuous Traffic** 100% SATISFIED YES ☐ NO ☒  
 80% SATISFIED YES ☐ NO ☒

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)					
	U	R	U	R	
APPROACH LANES	1		2 or More		
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)	
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	

NONE

**Combination of Conditions A & B** SATISFIED YES ☐ NO ☒

REQUIREMENT	CONDITION	✓	FULFILLED
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			Yes <input type="checkbox"/> No <input type="checkbox"/>

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



**Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)**

**WARRANT 2 - Four Hour Vehicular Volume**

SATISFIED\* YES ☐ NO ☒

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One	2 or More	Hour
Both Approaches - Major Street	X		232
Higher Approach - Minor Street	X		100

MAX HOUR DOES NOT PLOT ABOVE LINE

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<u>OR</u> , All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**WARRANT 3 - Peak Hour  
(Part A or Part B must be satisfied)**

SATISFIED YES ☐ NO ☒

**PART A**

SATISFIED YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches. 417	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**PART B**

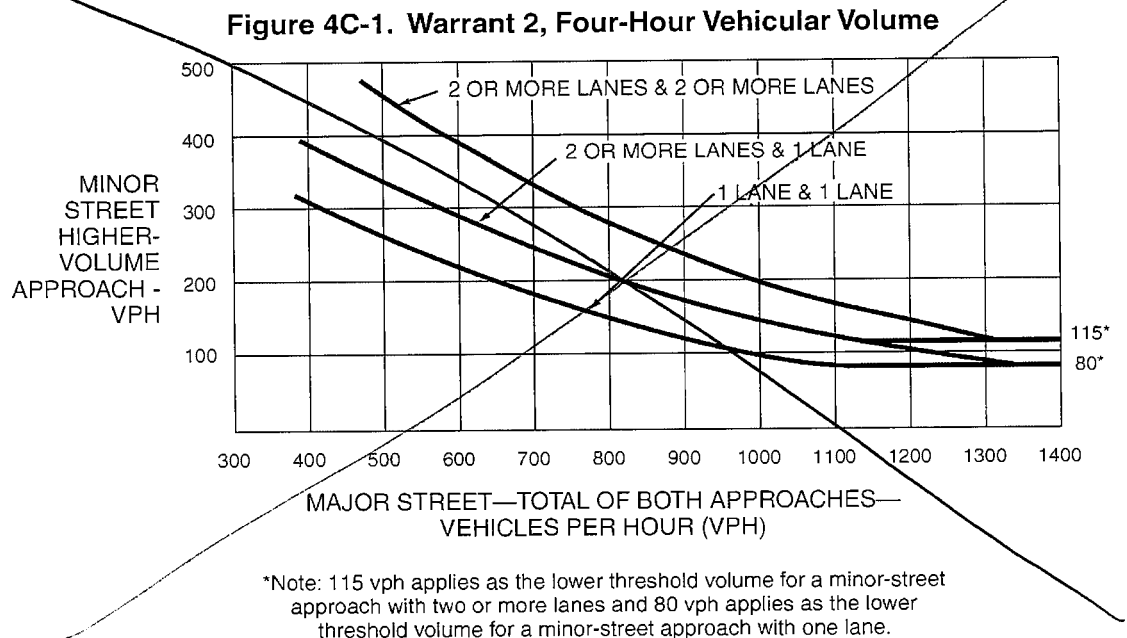
SATISFIED YES ☐ NO ☒

APPROACH LANES	One	2 or More	Hour
Both Approaches - Major Street	X		232
Higher Approach - Minor Street	X		100

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<u>OR</u> , The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

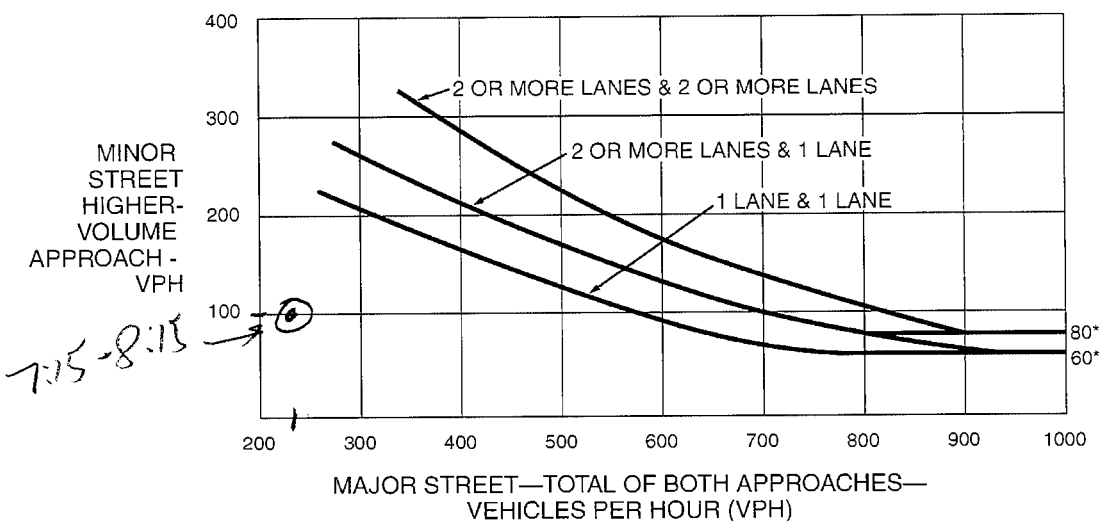
The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.





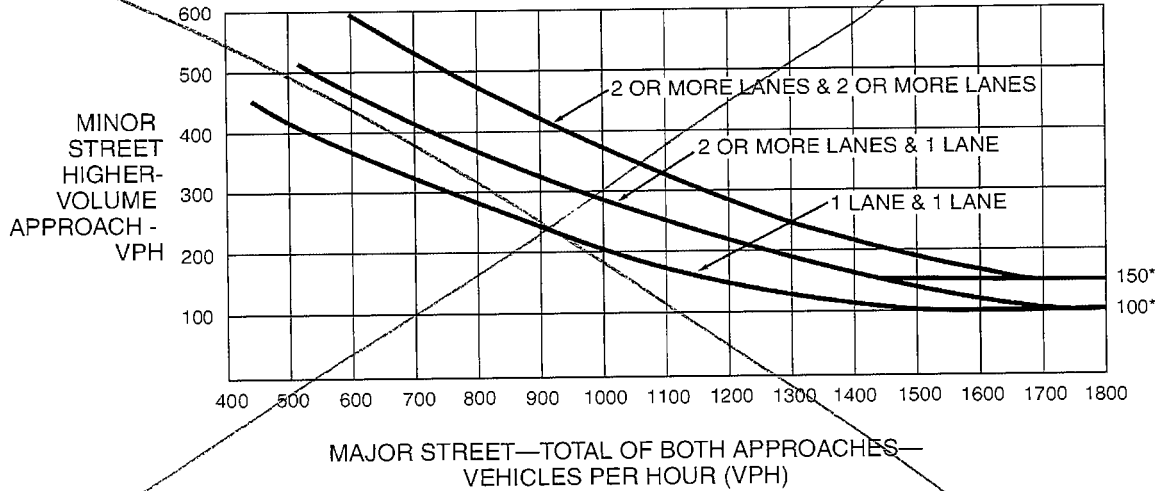
**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



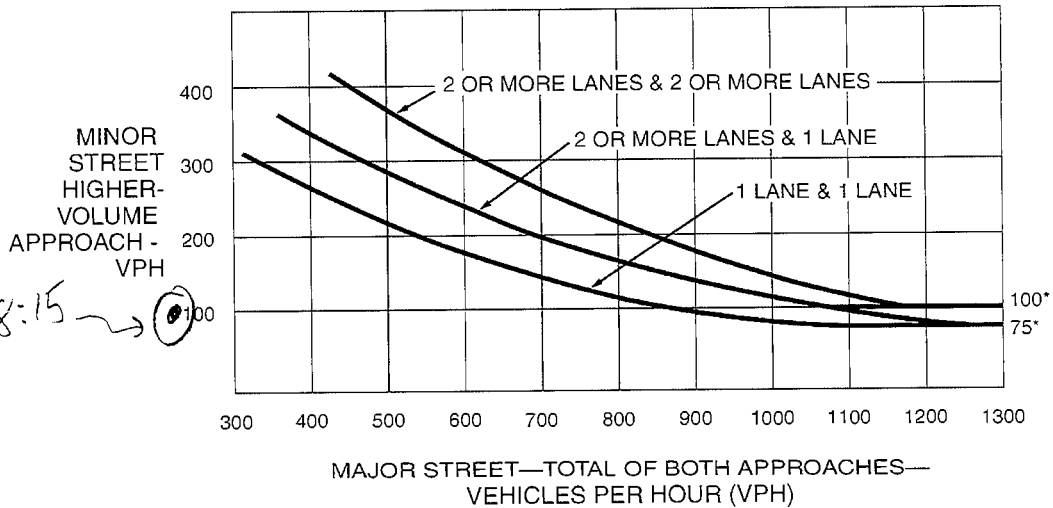


**Figure 4C-3. Warrant 3, Peak Hour**



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.



<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <div style="display: flex; justify-content: space-between; border-bottom: 1px solid black; margin-bottom: 5px;"> <span>DIST</span> <span>CO</span> <span>RTE</span> <span>PM</span> </div> <div style="display: flex; justify-content: space-between; border-bottom: 1px solid black; margin-bottom: 5px;"> <span>Major St:</span> <span>Ave 280</span> </div> <div style="display: flex; justify-content: space-between; border-bottom: 1px solid black;"> <span>Minor St:</span> <span>SR 99 SB OFF</span> </div> </div> <div style="width: 55%;"> <div style="margin-bottom: 5px;">COUNT DATE <u>8-28-18</u></div> <div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> <span>CALC <u>VR</u></span> <span>DATE <u>9-26-18</u></span> </div> <div style="display: flex; justify-content: space-between; margin-bottom: 5px;"> <span>CHK _____</span> <span>DATE _____</span> </div> <div style="margin-bottom: 5px;">Critical Approach Speed <u>&gt;40</u> mph</div> <div style="margin-bottom: 5px;">Critical Approach Speed _____ mph</div> </div> </div>			
<div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="width: 60%;"> <div style="margin-bottom: 5px;">Speed limit or critical speed on major street traffic &gt; 40 mph.....</div> <div style="margin-bottom: 5px;">In built up area of isolated community of &lt; 10,000 population.....</div> </div> <div style="width: 10%; text-align: center;"> <input checked="" type="checkbox"/>              or  <input type="checkbox"/>  <input type="checkbox"/> </div> <div style="width: 30%; font-size: 2em;">             }              }              }           </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <span>RURAL (R)</span> <span>URBAN (U)</span> </div> </div>			

### Condition A - Minimum Vehicle Volume

80% SATISFIED YES ☐ NO ☒

### Condition B - Interruption of Continuous Traffic

80% SATISFIED YES ☐ NO ☒

### Combination of Conditions A & B

SATISFIED YES ☐ NO ☒

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



**Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)**

**WARRANT 2 - Four Hour Vehicular Volume**

SATISFIED\* YES ☐ NO ☒

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One	2 or More	7-15	16-30	31-50	51-70	71-100	Hour
Both Approaches - Major Street	X		475	360	403	377		
Higher Approach - Minor Street	X		146	136	153	195		

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
OR, All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**WARRANT 3 - Peak Hour**  
(Part A or Part B must be satisfied)

SATISFIED YES ☐ NO ☒

**PART A**

SATISFIED YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches. <b>621</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**PART B**

SATISFIED YES ☐ NO ☒

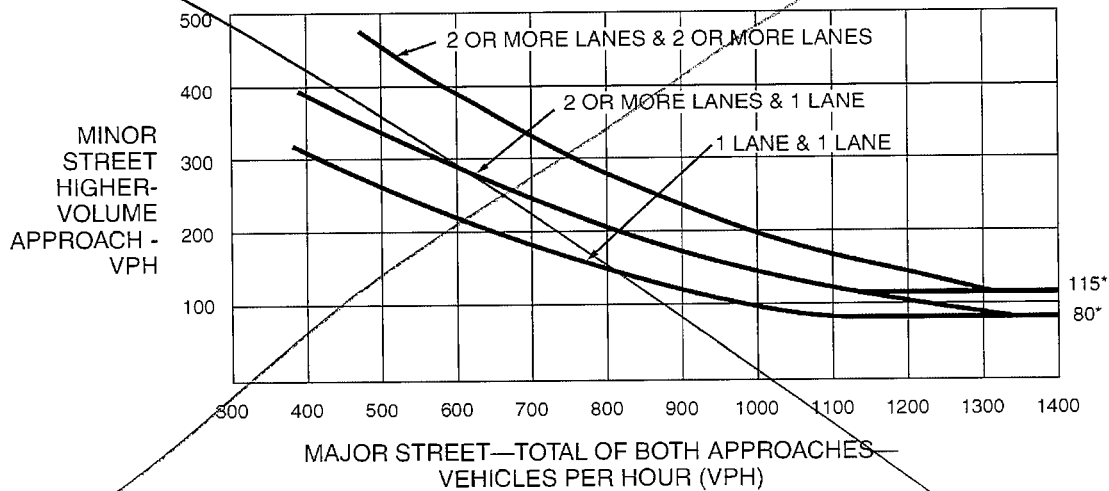
APPROACH LANES	One	2 or More	7-15	Hour
Both Approaches - Major Street	X		475	
Higher Approach - Minor Street	X		146	

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
OR, The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



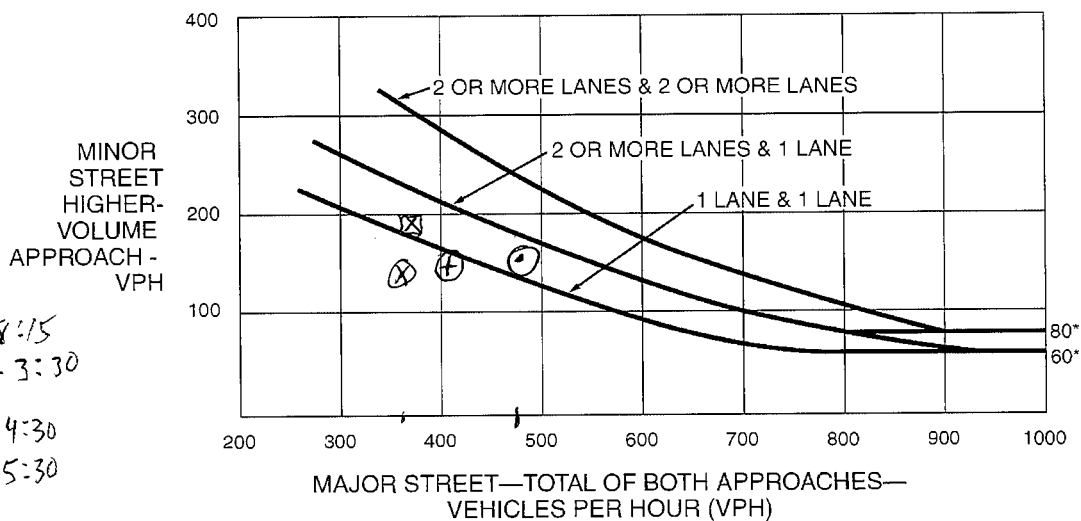
**Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume**



\*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

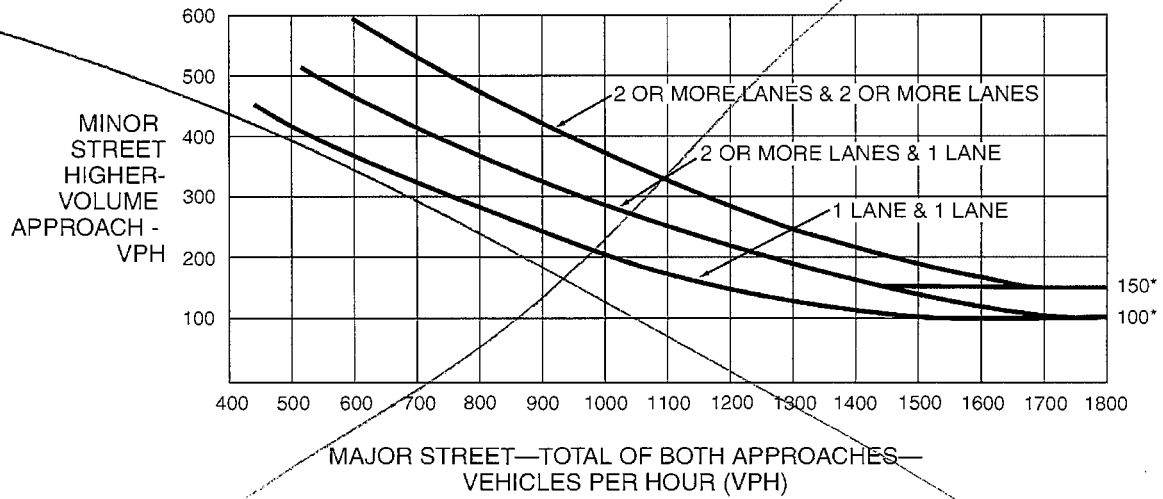
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.



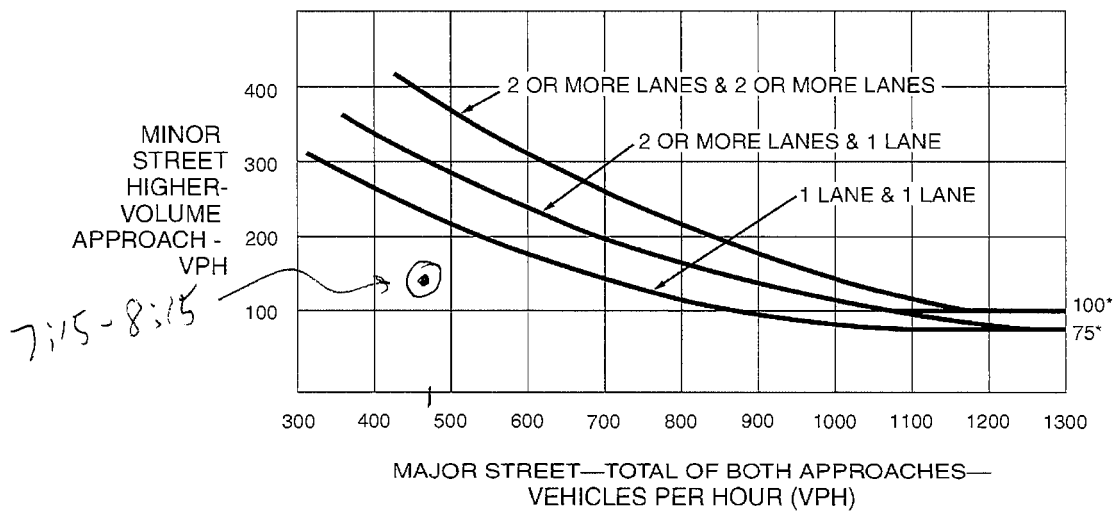
**Figure 4C-3. Warrant 3, Peak Hour**



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.



**Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)**

COUNT DATE 8-28-18  
CALC JR DATE 9-26-18  
CHK \_\_\_\_\_ DATE \_\_\_\_\_

DIST \_\_\_\_\_ CO \_\_\_\_\_ RTE \_\_\_\_\_ PM \_\_\_\_\_  
Major St: AVE 280  
Minor St: DRIVE 88 / DRIVE 85B

Critical Approach Speed > 40 mph mph  
Critical Approach Speed \_\_\_\_\_ mph

Speed limit or critical speed on major street traffic > 40 mph..... ☒ of } **RURAL (R)**  
In built up area of isolated community of < 10,000 population..... ☐ } **URBAN (U)**

**WARRANT 1 - Eight Hour Vehicular Volume** SATISFIED YES ☐ NO ☒  
(Condition A or Condition B or combination of A and B must be satisfied)

**Condition A - Minimum Vehicle Volume** 100% SATISFIED YES ☐ NO ☒  
80% SATISFIED YES ☐ NO ☐

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)															
	U	R	U	R												
		1			2 or More	7:00	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)		587	468	355	405	484	563	571	448			
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)		139	113	105	115	150	165	174	122			

\* 8 HRS @ 100%  
14 HRS @ 80%

**Condition B - Interruption of Continuous Traffic** 100% SATISFIED YES ☐ NO ☐  
80% SATISFIED YES ☐ NO ☐

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)															
	U	R	U	R												
		1			2 or More											
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)												
Highest Approach Minor Street	75 (60)	53 (42)	100 (80)	70 (56)												

\* 5 @ 100%  
6 @ 80%

**Combination of Conditions A & B** SATISFIED YES ☐ NO ☐

REQUIREMENT	CONDITION	✓	FULFILLED
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		Yes <input type="checkbox"/> No <input type="checkbox"/>
	AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			Yes <input type="checkbox"/> No <input type="checkbox"/>

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

\* IF AVE 280 = 2 OR MORE LANES, 6 HRS @ 100%  
11 HRS @ 80%

\*\* IF AVE 280 = 2 LANES: 1 HR @ 100%  
5 HRS @ 80%



**Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)**

**WARRANT 2 - Four Hour Vehicular Volume**

SATISFIED\* YES ☒ NO ☐

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One	2 or More	1:00	2:00	3:00	4:00	Hour
Both Approaches - Major Street	X		587	484	563	571	
Higher Approach - Minor Street	X		139	150	165	174	

SATISFIED FOR ONE LANE. 3 POINTS FOR 2 LANE/1 LANE

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<u>OR</u> , All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

**WARRANT 3 - Peak Hour**  
(Part A or Part B must be satisfied)

SATISFIED YES ☒ NO ☐

**PART A**

SATISFIED YES ☐ NO ☐

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches. 810	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

**PART B**

SATISFIED YES ☒ NO ☐

APPROACH LANES	One	2 or More	1:15	2:15	3:15	4:15	Hour
Both Approaches - Major Street	X		634				
Higher Approach - Minor Street	X		159				

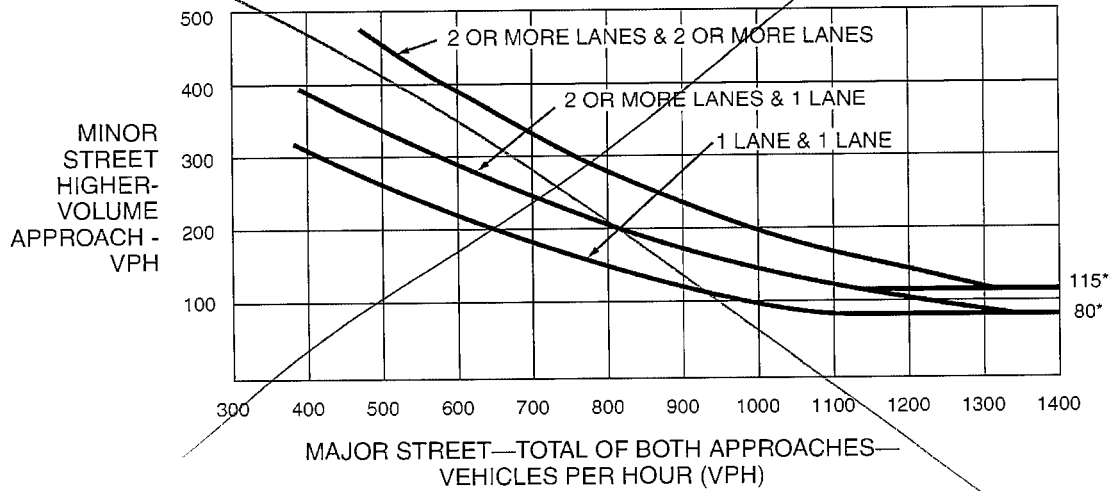
SATISFIED FOR 1/1  
NOT SATISFIED FOR 2/1

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<u>OR</u> , The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



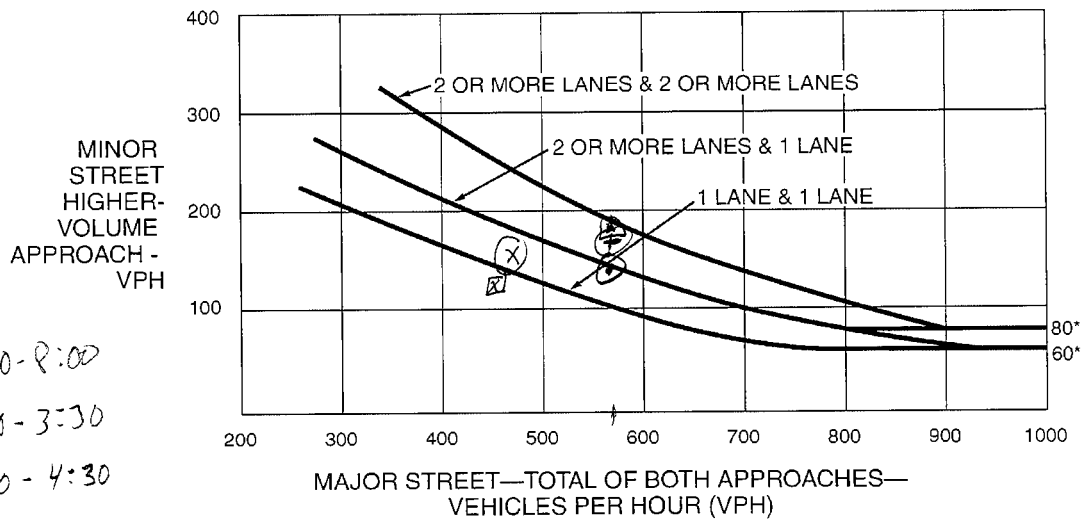
**Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume**



\*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

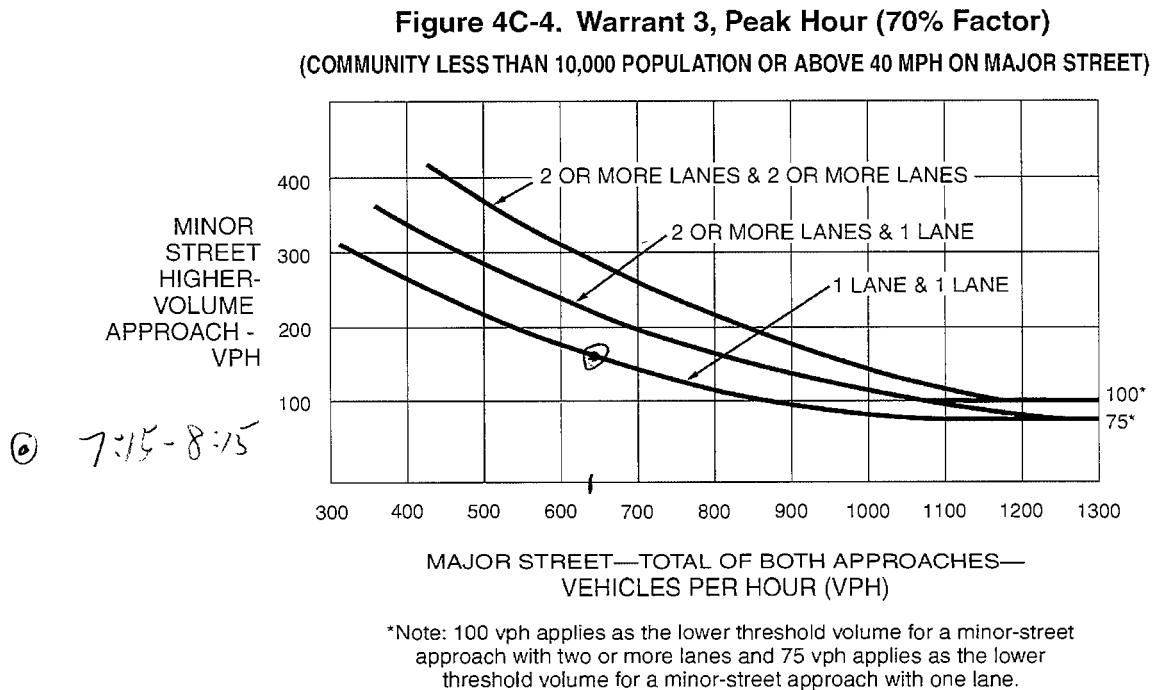
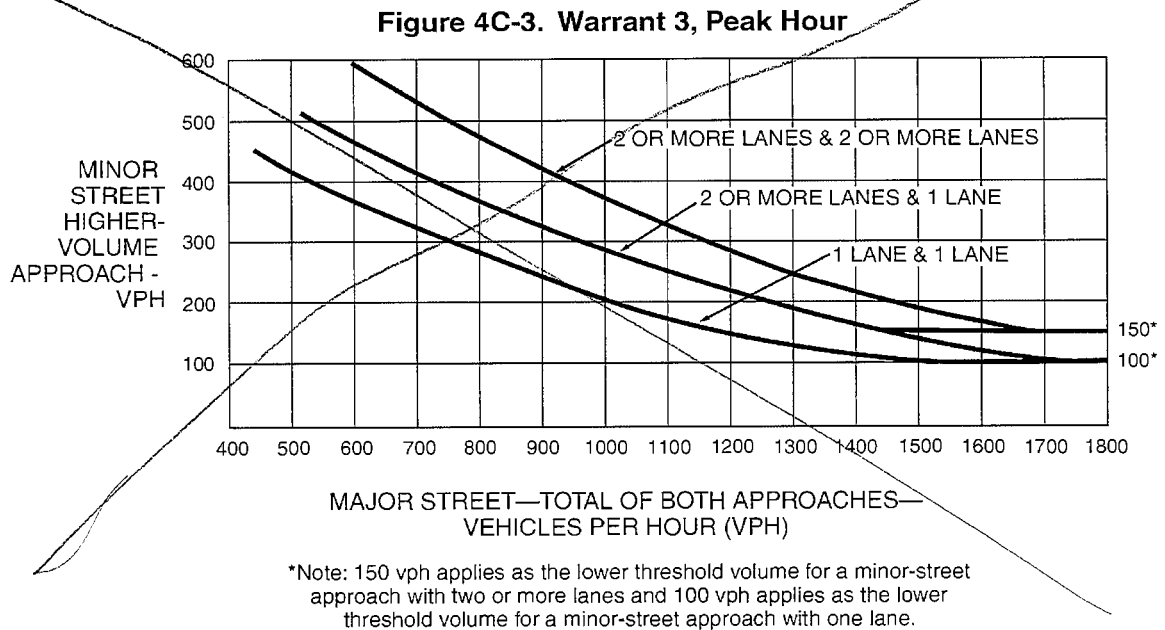
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

- ⑦ 7:00-8:00
- ✱ 2:30-3:30
- ⊕ 3:30-4:30
- 4:30-5:30
- ⊠ 5:30-6:30







**Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 1 of 5)**

COUNT DATE 8-28-18  
 CALC JR DATE 9-26-18  
 CHK \_\_\_\_\_ DATE \_\_\_\_\_  
 DIST \_\_\_\_\_ CO \_\_\_\_\_ RTE \_\_\_\_\_ PM \_\_\_\_\_  
 Major St: SR 99 NB OFF/OR. 88 Critical Approach Speed < 40 mph  
 Minor St: DRIVE 88 Critical Approach Speed > 40 mph

Speed limit or critical speed on major street traffic > 40 mph.....☒ }  
 In built up area of isolated community of < 10,000 population.....☐ } **RURAL (R)**  
☐ **URBAN (U)**

**WARRANT 1 - Eight Hour Vehicular Volume** SATISFIED YES ☐ NO ☒  
 (Condition A or Condition B or combination of A and B must be satisfied)

**Condition A - Minimum Vehicle Volume** 100% SATISFIED YES ☐ NO ☒  
 80% SATISFIED YES ☐ NO ☒

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)					80% SATISFIED		YES	<input type="checkbox"/>	NO	<input checked="" type="checkbox"/>	
	U	(R)	U	R							
APPROACH LANES	(1)		2 or More		6:30-7:30						
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)	(338)						
Highest Approach Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	(84)						

**Condition B - Interruption of Continuous Traffic** 100% SATISFIED YES ☐ NO ☒  
 80% SATISFIED YES ☐ NO ☒

MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)					80% SATISFIED YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>										
					NONE SATISFIED										
		U	(R)			U	R								
APPROACH LANES		(1)		2 or More										Hour	
Both Approaches Major Street		750 (600)	525 (420)	900 (720)	630 (504)										
Highest Approach Minor Street		75 (60)	53 (42)	100 (80)	70 (56)										

**Combination of Conditions A & B** SATISFIED YES ☐ NO ☒

REQUIREMENT	CONDITION	✓	FULFILLED
TWO CONDITIONS SATISFIED 80%	A. MINIMUM VEHICULAR VOLUME		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	AND, B. INTERRUPTION OF CONTINUOUS TRAFFIC		
AND, AN ADEQUATE TRIAL OF OTHER ALTERNATIVES THAT COULD CAUSE LESS DELAY AND INCONVENIENCE TO TRAFFIC HAS FAILED TO SOLVE THE TRAFFIC PROBLEMS			Yes <input type="checkbox"/> No <input type="checkbox"/>

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



**Figure 4C-101 (CA). Traffic Signal Warrants Worksheet (Sheet 2 of 5)**

**WARRANT 2 - Four Hour Vehicular Volume**

SATISFIED\* YES ☐ NO ☒

Record hourly vehicular volumes for any four hours of an average day.

APPROACH LANES	One	2 or More	Hour
Both Approaches - Major Street		407	
Higher Approach - Minor Street		81	

NONE MET

*All plotted points fall above the applicable curve in Figure 4C-1. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<u>OR</u> , All plotted points fall above the applicable curve in Figure 4C-2. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**WARRANT 3 - Peak Hour  
(Part A or Part B must be satisfied)**

SATISFIED YES ☐ NO ☒

**PART A**

SATISFIED YES ☐ NO ☒

(All parts 1, 2, and 3 below must be satisfied for the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two-lane approach; <u>AND</u>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; <u>AND</u>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches. 488	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

**PART B**

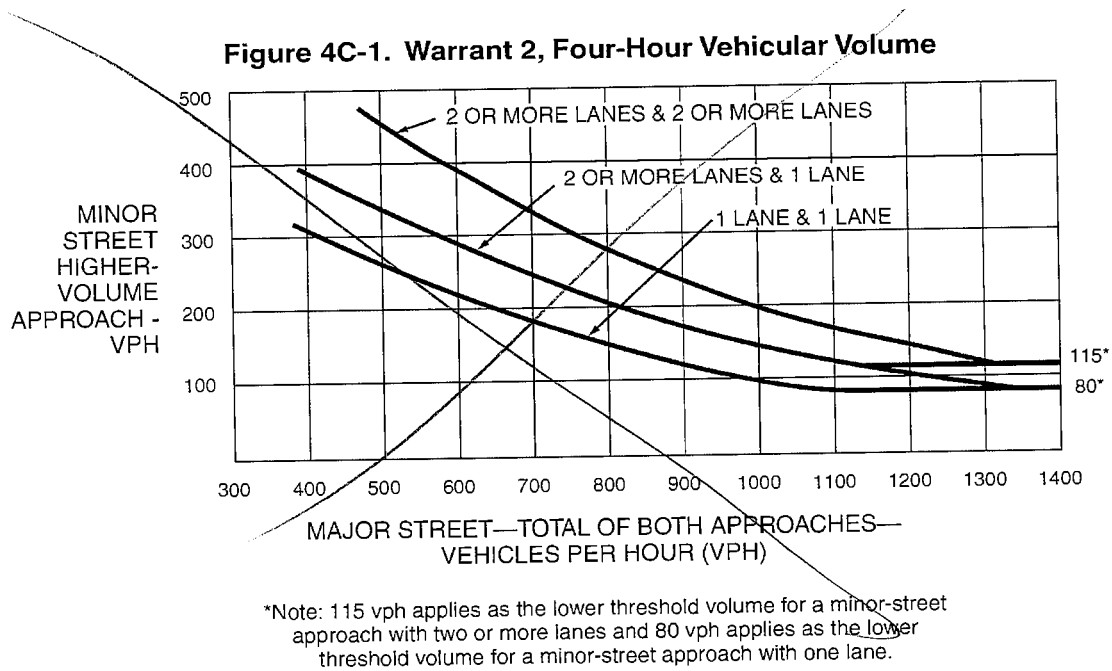
SATISFIED YES ☐ NO ☒

APPROACH LANES	One	2 or More	Hour
Both Approaches - Major Street	X	407	
Higher Approach - Minor Street	X	81	

The plotted point falls above the applicable curve in Figure 4C-3. (URBAN AREAS)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
<u>OR</u> , The plotted point falls above the applicable curve in Figure 4C-4. (RURAL AREAS)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

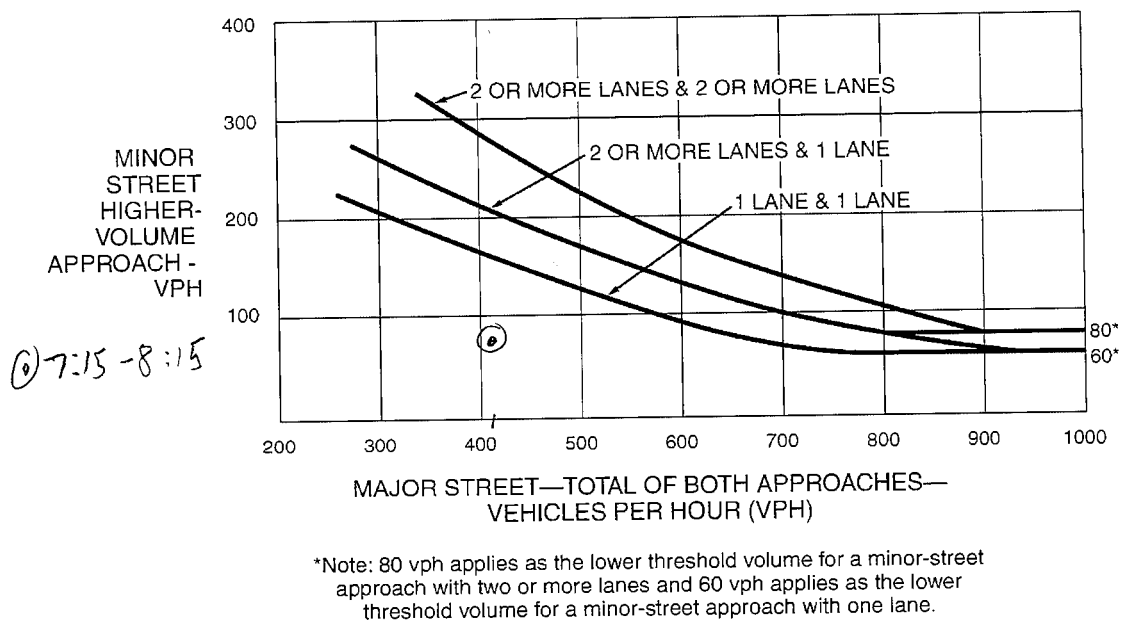
The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



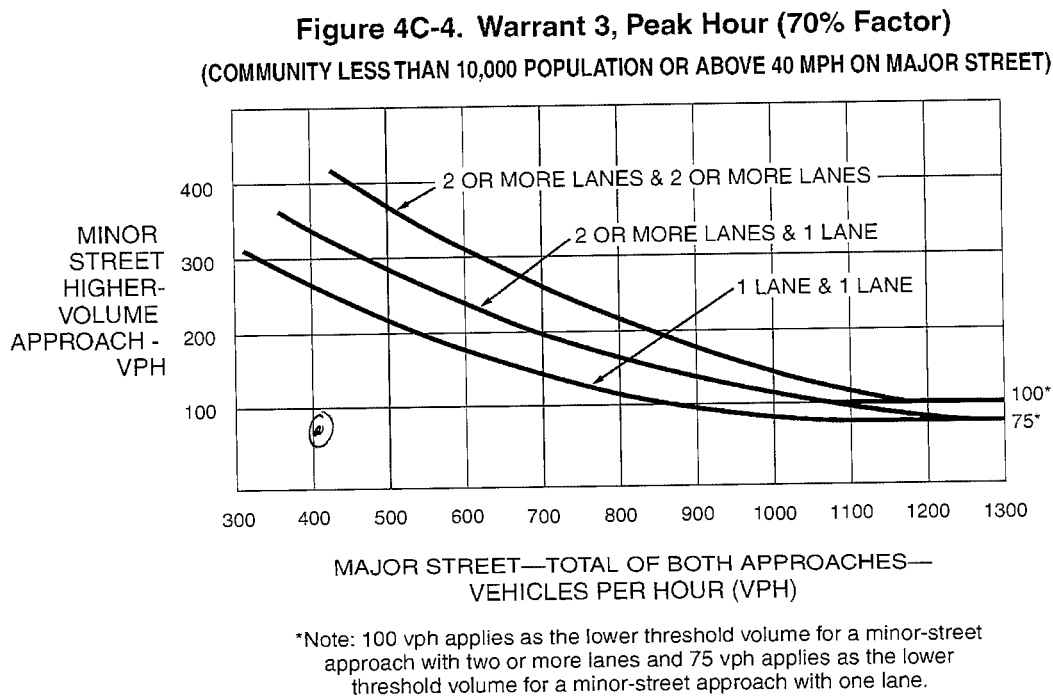
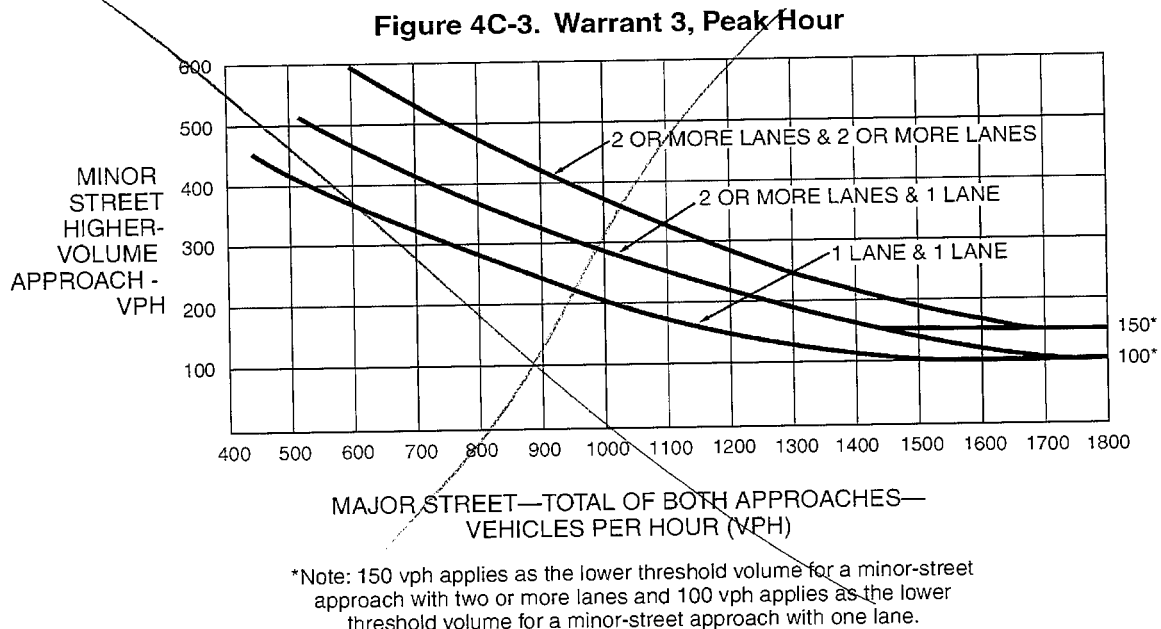


**Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)**

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)









APPENDIX E  
MITIGATED INTERSECTION ANALYSIS SHEETS

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















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2: SR-99 SB & Ave 280  
HCM 2010 Signalized Intersection Summary

Existing Plus Project (PCE)-AM-Mitigated

09/28/2018






												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	225	81	127	247	0	0	0	0	118	2	75
Future Volume (veh/h)	0	225	81	127	247	0	0	0	0	118	2	75
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1827	1900	1827	1827	0				1827	1827	1900
Adj Flow Rate, veh/h	0	321	116	153	298	0				104	33	80
Adj No. of Lanes	0	2	0	2	2	0				1	1	0
Peak Hour Factor	0.70	0.70	0.70	0.83	0.83	0.83				0.94	0.94	0.94
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	755	268	394	1940	0				274	75	181
Arrive On Green	0.00	0.30	0.30	0.12	0.56	0.00				0.16	0.16	0.16
Sat Flow, veh/h	0	2605	892	3375	3563	0				1740	474	1150
Grp Volume(v), veh/h	0	220	217	153	298	0				104	0	113
Grp Sat Flow(s),veh/h/ln	0	1736	1670	1688	1736	0				1740	0	1624
Q Serve(g_s), s	0.0	3.2	3.3	1.3	1.3	0.0				1.7	0.0	2.0
Cycle Q Clear(g_c), s	0.0	3.2	3.3	1.3	1.3	0.0				1.7	0.0	2.0
Prop In Lane	0.00		0.53	1.00		0.00				1.00		0.71
Lane Grp Cap(c), veh/h	0	521	502	394	1940	0				274	0	256
V/C Ratio(X)	0.00	0.42	0.43	0.39	0.15	0.00				0.38	0.00	0.44
Avail Cap(c_a), veh/h	0	2269	2183	2287	7382	0				1836	0	1714
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	8.9	8.9	13.0	3.4	0.0				12.0	0.0	12.1
Incr Delay (d2), s/veh	0.0	0.5	0.6	0.6	0.0	0.0				0.9	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.6	1.6	0.7	0.6	0.0				0.9	0.0	1.0
LnGrp Delay(d),s/veh	0.0	9.4	9.5	13.6	3.4	0.0				12.8	0.0	13.3
LnGrp LOS		A	A	B	A					B		B
Approach Vol, veh/h		437			451						217	
Approach Delay, s/veh		9.5			6.9						13.1	
Approach LOS		A			A						B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			8.2	14.0		9.5		22.2				
Change Period (Y+Rc), s			4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s			21.5	41.5		33.5		67.5				
Max Q Clear Time (g_c+I1), s			3.3	5.3		4.0		3.3				
Green Ext Time (p_c), s			0.4	4.2		1.0		4.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			9.1									
HCM 2010 LOS			A									
<b>Notes</b>												



2: SR-99 SB & Ave 280  
Queues

Existing Plus Project (PCE)-AM-Mitigated

09/28/2018


















					
Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	437	153	298	108	100
v/c Ratio	0.45	0.22	0.17	0.29	0.25
Control Delay	12.7	16.0	4.7	16.6	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	16.0	4.7	16.6	7.7
Queue Length 50th (ft)	36	14	13	21	4
Queue Length 95th (ft)	55	35	27	61	34
Internal Link Dist (ft)	1834		700		949
Turn Bay Length (ft)		500			
Base Capacity (vph)	3216	2032	3471	1396	1293
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.14	0.08	0.09	0.08	0.08
Intersection Summary					








2: SR-99 SB & Ave 280  
HCM 2010 Signalized Intersection Summary

Existing Plus Project (PCE)-PM-Mitigated

09/28/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	176	61	101	121	0	0	0	0	183	4	20
Future Volume (veh/h)	0	176	61	101	121	0	0	0	0	183	4	20
Number	7	4	14	3	8	18				1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1827	1900	1827	1827	0				1827	1827	1900
Adj Flow Rate, veh/h	0	196	68	126	151	0				229	0	0
Adj No. of Lanes	0	2	0	2	2	0				2	1	0
Peak Hour Factor	0.90	0.90	0.90	0.80	0.80	0.80				0.89	0.89	0.89
Percent Heavy Veh, %	0	4	4	4	4	0				4	4	4
Cap, veh/h	0	542	182	380	1698	0				635	333	0
Arrive On Green	0.00	0.21	0.21	0.11	0.49	0.00				0.18	0.00	0.00
Sat Flow, veh/h	0	2643	859	3375	3563	0				3480	1827	0
Grp Volume(v), veh/h	0	131	133	126	151	0				229	0	0
Grp Sat Flow(s),veh/h/ln	0	1736	1675	1688	1736	0				1740	1827	0
Q Serve(g_s), s	0.0	1.8	1.9	0.9	0.6	0.0				1.6	0.0	0.0
Cycle Q Clear(g_c), s	0.0	1.8	1.9	0.9	0.6	0.0				1.6	0.0	0.0
Prop In Lane	0.00		0.51	1.00		0.00				1.00		0.00
Lane Grp Cap(c), veh/h	0	369	356	380	1698	0				635	333	0
V/C Ratio(X)	0.00	0.36	0.37	0.33	0.09	0.00				0.36	0.00	0.00
Avail Cap(c_a), veh/h	0	2628	2537	2648	8550	0				4254	2233	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	9.2	9.2	11.2	3.7	0.0				9.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.6	0.6	0.5	0.0	0.0				0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.9	0.9	0.5	0.3	0.0				0.8	0.0	0.0
LnGrp Delay(d),s/veh	0.0	9.8	9.9	11.7	3.8	0.0				10.1	0.0	0.0
LnGrp LOS		A	A	B	A					B		
Approach Vol, veh/h		264			277						229	
Approach Delay, s/veh		9.8			7.4						10.1	
Approach LOS		A			A						B	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			7.6	10.3		9.5		17.9				
Change Period (Y+Rc), s			4.5	4.5		4.5		4.5				
Max Green Setting (Gmax), s			21.5	41.5		33.5		67.5				
Max Q Clear Time (g_c+I1), s			2.9	3.9		3.6		2.6				
Green Ext Time (p_c), s			0.3	2.2		0.8		2.3				
<b>Intersection Summary</b>												
HCM 2010 Ctrl Delay			9.0									
HCM 2010 LOS			A									
<b>Notes</b>												



					
Lane Group	EBT	WBL	WBT	SBL	SBT
Lane Group Flow (vph)	264	126	151	117	115
v/c Ratio	0.32	0.18	0.09	0.29	0.29
Control Delay	11.4	14.3	4.7	14.8	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	14.3	4.7	14.8	13.7
Queue Length 50th (ft)	18	11	6	21	17
Queue Length 95th (ft)	45	26	14	56	53
Internal Link Dist (ft)	1834		700		949
Turn Bay Length (ft)		500			
Base Capacity (vph)	3307	2193	3471	1489	1467
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.08	0.06	0.04	0.08	0.08
Intersection Summary					



## **APPENDIX G**

### **NOTICE OF PREPARATION PROCESS**



## **APPENDIX G.1**

### **NOP TRACKING SHEET**



NOTICE OF PREPARATION											
Dunn Asphalt & Concrete Batch Plant (PSP 18-049)– SCH# 2019011039											
AGENCY / ENTITY	DOCUMENTS SENT					DELIVERY METHOD					COMMENTS RECEIVED
	Hard Copy		CD								
	Cover Letter	NOC	NOP	Electronic Submittal Form	NOP	Hand Delivered / Interoffice	E-mail	FedEx	Certified US Mail	Return Receipt	
AVAILABILITY OF PUBLIC VIEWING											
Tulare County Resource Management Agency 5961 S. Mooney Blvd. Visalia, CA 93277-9394			X			1/18/19					
Tulare County Website: <a href="http://tularecounty.ca.gov/rma/index.cfm/projects/planning-projects/applicant-projects/dunn-asphalt-and-concrete-batch-plant/">http://tularecounty.ca.gov/rma/index.cfm/projects/planning-projects/applicant-projects/dunn-asphalt-and-concrete-batch-plant/</a>											
STATE CLEARINGHOUSE (Agencies below were marked with “X” on the NOC)	X	X	15					1/17/19 813792804227			1/18/19, OPR distributed the NOP to State agencies
<ul style="list-style-type: none"><li>Air Resources Board</li></ul>											No Response Received
<ul style="list-style-type: none"><li>California Highway Patrol</li></ul>											No Response Received
<ul style="list-style-type: none"><li>Caltrans District #6</li></ul>											See Below
<ul style="list-style-type: none"><li>Caltrans Planning</li></ul>											No Response Received
<ul style="list-style-type: none"><li>Department of Conservation</li></ul>											1/29/19, letter received from Monique Wilber, with recommendations for the discussion in the Ag Resources section of the EIR
<ul style="list-style-type: none"><li>Department of Fish and Wildlife Region #4</li></ul>											No Response Received
<ul style="list-style-type: none"><li>Department of Food and Agriculture</li></ul>											No Response Received
<ul style="list-style-type: none"><li>Department of Forestry and Fire Protection</li></ul>											No Response Received
<ul style="list-style-type: none"><li>Native American Heritage Commission</li></ul>											1/25/19, letter received from Sharaya Souza regarding requirements for compliance with SB 18 and AB 52
<ul style="list-style-type: none"><li>Regional Water Quality Control Board District #5F</li></ul>											No Response Received
<ul style="list-style-type: none"><li>Resources Agency</li></ul>											No Response Received
<ul style="list-style-type: none"><li>State Water Resources Control Board – Water Quality</li></ul>											No Response Received
<ul style="list-style-type: none"><li>Department of Toxic Substances Control</li></ul>											No Response Received
<ul style="list-style-type: none"><li>CalRecycle – Recycling and Recovery</li></ul>											No Response Received
FEDERAL AGENCIES											
Federal Aviation Administration 4955 E. Anderson Fresno, CA 93727 (559) 454-0286			X						1/18/19 70142870000108471006	1/22/19	HGuerra 2/19/19: per phone conversation with Brian Smith of FAA Fresno, the MND does not need to be submitted to them.
U.S. Army Corps of Engineers Sacramento District 1325 J Street, Room 1350 Sacramento, CA 95814-2922			X						1/18/19 70142870000108471013	1/22/19	No Response Received
United States Department of Agriculture Natural Resources Conservation Service Visalia Service Center 3530 W. Orchard Ct. Visalia, CA 93277-7055			X						1/18/19 70142870000108471020	1/22/19	No Response Received
United States Fish and Wildlife Service Sacramento Fish & Wildlife Office 2800 Cottage Way, Room W-2605 Sacramento, CA 95825-1846			X						1/18/19 70142870000108471037	1/22/19	No Response Received
Natural Resources Conservation Service 1400 Independence Ave SW Room 5105-A Washington, DC 20250-1111			X						1/18/19 70142870000108471044	1/24/19 green receipt never returned but USPS website shows as delivered	No Response Received
Natural Resources Conservation Service Visalia Service Center 3530 W. Orchard Ct. Visalia, CA 93277-7055			X						1/18/19 70142870000108471051	1/22/19	No Response Received



NOTICE OF PREPARATION											
Dunn Asphalt & Concrete Batch Plant (PSP 18-049)– SCH# 2019011039											
AGENCY / ENTITY	DOCUMENTS SENT					DELIVERY METHOD					COMMENTS RECEIVED
	Hard Copy			CD							
	Cover Letter	NOC	NOP	Electronic Submittal Form	NOP	Hand Delivered / Interoffice	E-mail	FedEx	Certified US Mail	Return Receipt	
STATE & REGIONAL AGENCIES											
California Department of Fish and Wildlife Region 4 – Central Region 1234 E. Shaw Avenue Fresno, CA 93710 <a href="mailto:JVANCE@dfg.ca.gov">JVANCE@dfg.ca.gov</a> <a href="mailto:Craig.Bailey@wildlife.ca.gov">Craig.Bailey@wildlife.ca.gov</a> <a href="mailto:Jennifer.Giannetta@wildlife.ca.gov">Jennifer.Giannetta@wildlife.ca.gov</a>			X				1/18/19		1/18/19 70142870000108471068	1/22/19	No Response Received
California Department of Transportation, District 6 Mike Navarro, Chief, Planning Branch 1352 W. Olive Ave P.O. Box 12616 Fresno, CA 93778-2616 <a href="mailto:michael.navarro@dot.ca.gov">michael.navarro@dot.ca.gov</a>			X				1/18/19		1/18/19 70142870000108471075	1/22/19	No Response Received
California Department of Transportation, District 6 David Deel, Associate Transportation Planner 1352 W. Olive Ave P.O. Box 12616 Fresno, CA 93778-2616 <a href="mailto:david.deel@dot.ca.gov">david.deel@dot.ca.gov</a>			X				1/18/19		1/18/19 70142870000108471082	1/22/19	2/15/19, Letter received providing recommendations for the TIS
Regional Water Quality Control Board Region 5F – Central Valley Attn: Doug Patteson 1685 E Street Fresno, CA 93706 <a href="mailto:Doug.Patteson@waterboards.ca.gov">Doug.Patteson@waterboards.ca.gov</a>			X				1/18/19		1/18/19 70142870000108471099	1/22/19	No Response Received
San Joaquin Valley Unified Air Pollution Control District 1990 E. Gettysburg Ave. Fresno, CA 93726 <a href="mailto:CEQA@valleyair.org">CEQA@valleyair.org</a> <a href="mailto:Patia.Siong@valleyair.org">Patia.Siong@valleyair.org</a> <a href="mailto:Brian.Clements@valleyair.org">Brian.Clements@valleyair.org</a>			X				1/18/19		1/18/19 70142870000108471105	1/29/19	2/20/19, letter received from Brian Clements regarding emissions analysis, health risk analysis, ambient air quality analysis, and Air District regulations
LOCAL AGENCIES											
City of Visalia Attn: City Manager 220 N. Santa Fe Street Visalia, CA 93292			X						1/18/19 70142870000108471112	1/22/19	No Response Received
City of Visalia Planning Department Attn: Paul Bernal, City Planner 315 E. Acequia Avenue Visalia, CA 93291 <a href="mailto:Paul.Bernal@visalia.city">Paul.Bernal@visalia.city</a>			X						1/18/19 70142870000108471129	1/22/19	No Resp onse Received
City of Tulare Attn: City Manager 411 E. Kern Avenue Tulare, CA 93274			X						1/18/19 70142870000108471136	1/22/19	No Response Received
City of Tulare Community Development Attn: Josh McDonnell, Director 411 E. Kern Ave. Tulare, CA 93274 <a href="mailto:jmcdonnell@tulare.ca.gov">jmcdonnell@tulare.ca.gov</a>			X						1/18/19 70142870000108471143	1/22/19	No Response Received



NOTICE OF PREPARATION											
Dunn Asphalt & Concrete Batch Plant (PSP 18-049)– SCH# 2019011039											
AGENCY / ENTITY	DOCUMENTS SENT					DELIVERY METHOD					COMMENTS RECEIVED
	Hard Copy			CD							
	Cover Letter	NOC	NOP	Electronic Submittal Form	NOP	Hand Delivered / Interoffice	E-mail	FedEx	Certified US Mail	Return Receipt	
County of Kings Community Development Agency Planning Division Attn: Toni Leist/Sydney Highfill 1400 W. Lacey Blvd. #6 Hanford, CA 93230			X						1/18/19 70142870000108471150	1/22/19	No Response Received
Tulare County Agricultural Commissioner 4437 S. Laspina Street Tulare CA 93274			X						1/18/19 70162070000049837202	1/22/19	No Response Received
Tulare County Airport Land Use Commission <ul style="list-style-type: none"><li>Bill Whitlatch</li><li>Steve Dwelle</li></ul>							1/18/19 (VQuiroz sent email)			---	No Response Received
Tulare County Association of Governments Attn: Ted Smalley, Executive Director 210 N. Church Street, Suite B Visalia, CA 93291			X						1/18/19 70162070000049837219	1/22/19	No Response Received
Tulare County Farm Bureau Attn: Tricia Stever Blattler, Executive Director P.O. Box 748 Visalia, CA 93291			X						1/18/19 70162070000049837226	1/29/19	No Response Received
Tulare County Fire Warden 835 S. Akers Street Visalia, CA 93277			X			1/18/19					No Response Received
Tulare County Health and Human Services Agency Environmental Health Department Attn: Allison Shuklian 5957 S. Mooney Blvd Visalia, CA 93277			X			1/18/19					1/31/19, letter received from Ted Martin regarding potential Hazardous Materials Business Plan and Solid Waste Facility Permit
Tulare County Local Agency Formation Commission 210 N. Church Street, Suite B Visalia, CA 93291			X			1/18/19					No Response Received
Tulare County Office of Emergency Services Attn: Sabrina Bustamonte / David Le 5957 S. Mooney Blvd Visalia, CA 93277			X			1/18/19					No Response Received
Tulare County RMA – Flood Control Attn: Ross Miller			X			1/18/19					No Response Received
Tulare County RMA – Tulare County Fire Attn: Gilbert Portillo / John Meyer			X			1/18/19					No Response Received
Tulare County RMA – Public Works Attn: Hernan Beltran / Johnny Wong			X			1/18/19					No Response Received
Tulare County Resources Conservation District 3530 W. Orchard Ct Visalia, CA 93277			X						1/18/19 70162070000049836588	1/22/19	No Response Received
Tulare County Sheriff Headquarters 2404 W. Burrel Avenue Visalia, CA 93291			X			1/18/19					No Response Received
Tulare County UC Cooperative Extension 4437 S. Laspina Street Tulare, CA 93274			X						1/18/19 70162070000049836595	1/22/19	No Response Received



NOTICE OF PREPARATION											
Dunn Asphalt & Concrete Batch Plant (PSP 18-049)– SCH# 2019011039											
AGENCY / ENTITY	DOCUMENTS SENT					DELIVERY METHOD					COMMENTS RECEIVED
	Hard Copy			CD							
	Cover Letter	NOC	NOP	Electronic Submittal Form	NOP	Hand Delivered / Interoffice	E-mail	FedEx	Certified US Mail	Return Receipt	
Tulare Irrigation District Aaron Sukeda, General Manager PO Box 1920 Tulare, CA 93274			X						1/18/19 70162070000049836533	Unknown – green receipt never returned and USPS website shows in-transit still as of 11/26/19 and	No Response Received
TRIBES											
Kern Valley Indian Council Robert Robinson, Co-Chairperson P.O. Box 1010 Lake Isabella, CA 93240			X						1/18/19 70162070000049836601	1/23/19 There is another one sent to the same person ending in 7233	No Response Received
Kern Valley Indian Council Julie Turner, Secretary P. Box 1010 Lake Isabella, CA 93240			X						1/18/19 70162070000049836472	1/23/19	No Response Received
Santa Rosa Rancheria Tachi Yokut Tribe Rueben Barrios Sr., Chairperson P. O. Box 8 Lemoore, CA 93245			X						1/18/19 70162070000049836489	1/22/19	No Response Received
Santa Rosa Rancheria Tachi Yokut Tribe Shana Powers, Cultural Specialist P. O. Box 8 Lemoore, CA 93245			X						1/18/19 70162070000049836496	1/22/19	No Response Received
Santa Rosa Rancheria Tachi Yokut Tribe Greg Cuara, Cultural Specialist P. O. Box 8 Lemoore, CA 93245			X						1/18/19 70162070000049836502	1/22/19	No Response Received
Torres Martinez Desert Cahuilla Indians Michael Mirelez, Cultural Resource Coordinator P. O. Box 1160 Thermal, CA 92274			X						1/18/19 70162070000049836519	1/22/19	No Response Received
Tubatulabals of Kern Valley Robert L. Gomez, Jr., Chairperson P.O. Box 226 Lake Isabella, CA 93240			X						1/18/19 70162070000049836526	---	2/8/19 NOTICE RETURNED: “Return to sender, Unclaimed, Unable to forward”  2/21/19 RKashiwa and CChi called number on record (760 223-3918) and left message but nobody returned call. The also called the phone number obtained from website (760 379-4590) but the person answering said it was a wrong number.
Tule River Indian Tribe Neil Peyron, Chairperson P. O. Box 589 Porterville, CA 93258			X						1/18/19 70142870000108470917	1/23/19  USPS website shows in-transit still as of 11/26/19	No Response Received



NOTICE OF PREPARATION											
Dunn Asphalt & Concrete Batch Plant (PSP 18-049)– SCH# 2019011039											
AGENCY / ENTITY	DOCUMENTS SENT					DELIVERY METHOD					COMMENTS RECEIVED
	Hard Copy			CD							
	Cover Letter	NOC	NOP	Electronic Submittal Form	NOP	Hand Delivered / Interoffice	E-mail	FedEx	Certified US Mail	Return Receipt	
Tule River Indian Tribe Environmental Department Kerri Vera, Director P. O. Box 589 Porterville, CA 93258			X						1/18/19 70142870000108470900	1/23/19  USPS website shows in-transit still as of 11/26/19	No Response Received
Tule River Indian Tribe Environmental Department Felix Christman, Tribal Monitor P. O. Box 589 Porterville, CA 93258			X						1/18/19 70142870000108470924	1/23/19  USPS website shows in-transit still as of 11/26/19	No Response Received
Wuksachi Indian Tribe Eshom Valley Band Kenneth Woodrow, Chairperson 1179 Rock Haven Ct. Salinas, CA 93906			X						1/18/19 70142870000108470931	1/23/19	No Response Received
OTHER INTERESTED PARTIES											
4Creeks, Inc. 324 S. Santa Fe St. Visalia, CA 93292 Attn: Richard Walker <a href="mailto:richardw@4-creeks.com">richardw@4-creeks.com</a>			X						1/18/19 70142870000108470948	1/23/19	No Response Received
Dunn’s Equipment Inc. Attn: Mark Dunn 303 N. Ben Maddox Way Visalia, CA 93292			X						1/18/19 70142870000108470955	1/22/19	No Response Received
Southern California Edison Attn: Calvin Rossi, Region Manager Local Public Affairs 2425 S. Blackstone St. Tulare, CA 93274			X						1/18/19 70142870000108470962	1/23/19	No Response Received
Southern California Gas Company 404 N. Tipton Street Visalia, CA 93292			X						1/18/19 70142870000108470979	1/28/19	No Response Received
La Joya Middle School Attn: Travis Hambleton, Principal 4711 W. La Vida Ave. Visalia, CA 93277			X						1/18/19 70142870000108470986	1/22/19	No Response Received
Linwood Elementary School Attn: Natalie Taylor, Principal 3129 S. Linwood Street Visalia, CA 93277			X						1/18/19 70142870000108470993	1/22/19	No Response Received
Sequoia Baptist Academy 3435 S. Linwood St. Visalia, CA 93277			X						1/18/19 70162070000049836540	1/22/19	No Response Received
Visalia Christian Schools 3737 S. Akers St. Visalia, CA 93277			X						1/18/19 70162070000049836557	---	1/24/19 NOTICE RETURNED: “Return to sender. Refused unable to forward.”
Visalia Montessori School 3502 S. Linwood St. Visalia, CA 93277			X						1/18/19 70162070000049836564	1/22/19	No Response Received
Visalia Unified School District Attn: Todd Oto, Superintendent 5000 W. Cypress Ave. Visalia, CA 93277			X						1/18/19 70162070000049836571	1/22/19	No Response Received



## **APPENDIX G.2**

### **NOTICE OF PREPARATION**





# RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

VISALIA, CA 93277

PHONE (559) 624-7000

FAX (559) 730-2653

Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

January 18, 2019

State Clearinghouse  
1400 Tenth Street, Room 100  
Sacramento, CA 95814

Re: Notice of Preparation (NOP) and Notice of Completion (NOC) Submittals for the Dunn  
Asphalt and Concrete Batch Plant (PSP 18-049)

Attn: State Clearinghouse:

Attached are the NOC and 15 copies of the NOP for the above referenced project. Tulare County respectfully requests to have the State Clearinghouse distribute the notices to the agencies denoted with an "X" on the attached NOC Reviewing Agencies Checklist.

The NOP will be made available on the County website on Friday, January 18, 2019, at:  
<http://tularecounty.ca.gov/rma/index.cfm/projects/planning-projects/applicant-projects/dunn-asphalt-and-concrete-batch-plant/>

If you have questions or need additional materials, please contact me by phone or email. Thank you for your assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "Hector Guerra".

Hector Guerra  
Chief Environmental Planner  
(559) 624-7121  
[hguerra@co.tulare.ca.us](mailto:hguerra@co.tulare.ca.us)

Enclosures: Notice of Completion Form (1)  
Notice of Preparation (15)



**Notice of Completion & Environmental Document Transmittal**

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613

For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

**SCH #****Project Title:** Dunn Asphalt and Concrete Batch Plant (PSP 18-049)Lead Agency: County of Tulare Resource Management AgencyContact: Hector Guerra, Chief Environmental PlannerMailing Address: 5961 S. Mooney Blvd.Phone: 559-624-7121City: Visalia Zip: 93277-9394County: Tulare County**Project Location:** County: TulareCity/Nearest Community: VisaliaCross Streets: Avenue 280 and State Route 99Zip Code: 93277Latitude/Longitude: 36° 17' 52.80" N / 119° 24' 00.08" W Total Acres: 20.0Assessor's Parcel No: 119-010-039 Section: 8 Township: 19 S Range: 24E Base: MDBMWithin 2 Miles: State Hwy: SR 99 Waterways: Mill CreekAirports: Visalia Municipal Airport Railways: SPRR Schools: Sycamore Valley Academy**Document Type:**

CEQA: ☒ NOP ☐ Draft EIR NEPA: ☐ NOI Other: ☐ Joint Document  
☐ Early Cons ☐ Supplement/Subsequent EIR ☐ EA ☐ Final Document  
☐ Neg Dec (Prior SCH No.) ☐ Draft EIS ☐ Other \_\_\_\_\_  
☐ Mit Neg Dec ☐ Other: \_\_\_\_\_ ☐ FONSI

**Local Action Type:**

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation  
☐ General Plan Amendment ☐ Master Plan ☐ Pre-zone ☐ Redevelopment  
☐ General Plan Element ☐ Planned Unit Dev. ☒ Use Permit ☐ Coastal Permit  
☐ Community Plan ☐ Site Plan ☐ Land Division (Sub.) ☐ Other \_\_\_\_\_

**Development Type:**

☐ Residential: Units \_\_\_\_\_ Acres \_\_\_\_\_  
☐ Office: Sq. ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_  
☐ Commercial: Sq. ft. \_\_\_\_\_ Acres \_\_\_\_\_ Employees \_\_\_\_\_  
☒ Industrial: Sq. ft. \_\_\_\_\_ Acres 20.0 Employees 15-20  
☐ Educational: \_\_\_\_\_  
☐ Recreational: \_\_\_\_\_  
☐ Water Facilities: Type \_\_\_\_\_ MGD \_\_\_\_\_  
☐ Transportation: Type \_\_\_\_\_  
☐ Mining: Mineral \_\_\_\_\_  
☐ Power: Type \_\_\_\_\_ MW \_\_\_\_\_  
☐ Waste Treatment: Type \_\_\_\_\_ MGD \_\_\_\_\_  
☐ Hazardous Waste: Type \_\_\_\_\_  
☒ Other: Asphalt & Concrete Batch Plant

**Project Issues Discussed in Document:**

☒ Aesthetic/Visual ☐ Fiscal ☒ Recreation/Parks ☒ Vegetation  
☒ Agricultural Land ☒ Flood Plain/Flooding ☒ Schools/Universities ☒ Water Quality  
☒ Air Quality ☒ Forest Land/Fire Hazard ☒ Septic Systems ☒ Water Supply/Groundwater  
☒ Archaeological/Historical ☒ Geologic/Seismic ☒ Sewer Capacity ☒ Wetland/Riparian  
☒ Biological Resources ☒ Minerals ☒ Soil Erosion/Compaction/Grading ☒ Growth Inducing  
☐ Coastal Zone ☒ Noise ☒ Solid/Waste ☒ Land Use  
☒ Drainage/Absorption ☒ Population/Housing Balance ☒ Toxic/Hazardous ☒ Cumulative Effects  
☒ Economic/Jobs ☒ Public Services/Facilities ☒ Traffic/Circulation ☒ Other: Tribal Cultural Res.

**Present Land Use/Zoning/General Plan Designation:**

Shop, Equipment Yard, and Farming / AE-40 (Extensive Agriculture – 40 Acre Minimum) / Agriculture

**Project Description:**

See attached page.



## **Project Description**

The Project consists of a concrete batch plant, recycling of concrete and asphalt, and a hot mix asphalt batch plant. The Project site is located on the south side of Avenue 280 west of State Route (SR) 99 and east of Road 76 in Tulare County, California. The site is not within the Sphere of Influence of the City of Visalia, which generally extends to the Avenue 280/SR 99 interchange.

The concrete batch plant is expected to produce 100,000 cubic yards of concrete per year. Aggregate, cement, and fly ash will be delivered to the site and ready-mix concrete will be delivered from the site. The concrete and asphalt recycling operation will consist of accepting broken concrete and asphalt from contractors. The concrete and asphalt will be crushed into recycled base; it is anticipated that 30,000 tons of recycled base will be produced per year and delivered from the site. The hot-mix asphalt (HMA) batch plant is expected to produce 125,000 tons of HMA per year. Aggregate, oil, and propane will be delivered to the site and HMA will be delivered from the site.

The Project would generate approximately 280 passenger car equivalent (PCE) trips during the morning peak travel periods, and 110 PCE trips during the evening peak travel periods. Site access will be provided via one main driveway connecting to the south side of Avenue 280 approximately 1,000 feet east of Road 76.



## Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with an "X." If the document has already been sent to the agency, denote that with an "s."

<input checked="" type="checkbox"/> Air Resources Board	<input type="checkbox"/> Office of Emergency Services
<input type="checkbox"/> Boating & Waterways, Department of	<input type="checkbox"/> Office of Historic Preservation
<input checked="" type="checkbox"/> California Highway Patrol	<input type="checkbox"/> Office of Public School Construction
<input checked="" type="checkbox"/> Caltrans District # 6	<input type="checkbox"/> Parks & Recreation, Department of
<input type="checkbox"/> Caltrans Division of Aeronautics	<input type="checkbox"/> Pesticide Regulation, Department of
<input checked="" type="checkbox"/> Caltrans Planning	<input type="checkbox"/> Public Health, Department of
<input type="checkbox"/> Central Valley Flood Protection Board	<input type="checkbox"/> Public Utilities Commission
<input type="checkbox"/> Cochella Valley Mtns. Conservancy	<input checked="" type="checkbox"/> Regional WQCB # 5F (attn: Doug Patteson)
<input type="checkbox"/> Coastal Commission	<input checked="" type="checkbox"/> Resources Agency
<input type="checkbox"/> Colorado River Board	<input type="checkbox"/> S.F. Bay Conservation & Development Commission
<input checked="" type="checkbox"/> Conservation, Department of	<input type="checkbox"/> San Gabriel & Lower L.A. Rivers and Mtns Conservancy
<input type="checkbox"/> Corrections, Department of	<input type="checkbox"/> San Joaquin River Conservancy
<input type="checkbox"/> Delta Protection Commission	<input type="checkbox"/> Santa Monica Mountains Conservancy
<input type="checkbox"/> Education, Department of	<input type="checkbox"/> State Lands Commission
<input type="checkbox"/> Energy Commission	<input type="checkbox"/> SWRCB: Clean Water Grants
<input checked="" type="checkbox"/> Fish & Wildlife Region # 4	<input checked="" type="checkbox"/> SWRCB: Water Quality
<input checked="" type="checkbox"/> Food & Agriculture, Department of	<input type="checkbox"/> SWRCB: Water Rights
<input checked="" type="checkbox"/> Forestry & Fire Protection, Department of	<input type="checkbox"/> Tahoe Regional Planning Agency
<input type="checkbox"/> General Services, Department of	<input checked="" type="checkbox"/> Toxic Substances Control, Department of
<input type="checkbox"/> Health Care Services, Department of	<input type="checkbox"/> Water Resources, Department of
<input type="checkbox"/> Housing & Community Development	<input checked="" type="checkbox"/> Other: <u>Recycling and Recovery (Cal Recycle)</u>
<input type="checkbox"/> Integrated Waste Management Board	<input type="checkbox"/> Other: <u>San Joaquin Valley Air Pollution Control District</u>
<input checked="" type="checkbox"/> Native American Heritage Commission	<input type="checkbox"/> Other: <u>City of Visalia / City of Tulare / County of Kings</u>
<input type="checkbox"/> Other: <u>Federal Aviation Administration</u>	<input type="checkbox"/> Other: <u>Tulare County Fire Warden</u>
<input type="checkbox"/> Other: <u>U.S. Department of Agriculture - NRCS</u>	<input type="checkbox"/> Other: <u>Tulare County HHSA – Environmental Health</u>
<input type="checkbox"/> Other: <u>U.S. Army Corps of Engineers</u>	<input type="checkbox"/> Other: <u>Tulare County Local Agency Formation Commission</u>
<input type="checkbox"/> Other: <u>U.S. Fish and Wildlife Service</u>	<input type="checkbox"/> Other: <u>Tulare County Office of Emergency Services</u>
<input type="checkbox"/> Other: <u>U.S. Natural Resources Conservation Service</u>	<input type="checkbox"/> Other: <u>Tulare County Resources Conservation District</u>
<input type="checkbox"/> Other: <u>Tulare County Agricultural Commissioner</u>	<input type="checkbox"/> Other: <u>Tulare County Sheriff's Office</u>
<input type="checkbox"/> Other: <u>Tulare County Airport Land Use Commission</u>	<input type="checkbox"/> Other: <u>Tulare County U.C. Cooperative Extension</u>
<input type="checkbox"/> Other: <u>Tulare County Association of Governments</u>	<input type="checkbox"/> Other: <u>Tulare Irrigation District</u>
<input type="checkbox"/> Other: <u>Tulare County Farm Bureau</u>	<input type="checkbox"/> Other: _____

### Local Public Review Period (to be filled in by lead agency)

Starting Date: January 18, 2019

Ending Date: February 19, 2019

### Lead Agency (Complete if applicable):

Consulting Firm: 4Creeks, Inc.  
Address: 324 S. Santa Fe St.  
City/State/Zip: Visalia, CA 93292  
Contact: Richard Walker  
Phone: (559) 802-3052

Applicant: Dunn's Equipment Inc.  
Address: 303 N. Ben Maddox Way  
City/State/Zip: Visalia, CA 93292  
Phone: (559) 734-5373

Signature of Lead Agency Representative: \_\_\_\_\_

Hector Guerra, Chief Environmental Planner

Date: 4/17/19

Signature of Lead Agency Representative: \_\_\_\_\_

Reed Schenke, Director/Environmental Assessment Officer

Date: 4/17/19



## NOTICE OF PREPARATION

To: State Clearinghouse  
PO Box 3044/ 1400 Tenth St  
Sacramento, CA 95814

From: County of Tulare – RMA  
5961 S Mooney Blvd  
Visalia CA 93277

Date: January 18, 2019

Subject: Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) and Scoping Meeting

Project Title: Dunn Asphalt and Concrete Batch Plant (PSP 18-049)

Project Applicant: County of Tulare

Project Location: Physical Address: 7763 Avenue 280, Visalia, CA 93277;  
Assessor Parcel Number (APN): 119-010-039;  
Section/Township/Range: Portion of NW ¼ of S. 8 / T. 19 S / R. 24 E, MDB&M  
Latitude/Longitude: 36° 17' 52.80" N, 119° 24' 00.08" W

Tulare County Resource Management Agency (RMA) will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit(s) or other approval(s) for the project. In addition, please provide us with contact information of the person(s) in your agency that we may contact during the CEQA process.

The project description, location, and the potential environmental effects are contained in the attached materials. The NOP is also available on the County website at:  
<http://tularecounty.ca.gov/rma/index.cfm/projects/planning-projects/applicant-projects/dunn-asphalt-and-concrete-batch-plant/>


Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

A scoping meeting is scheduled for **Thursday, January 31, 2019, at 1:30 P.M.** in the Main Conference Room of the Tulare County Resource Management Agency at the address shown above.

Please direct your response to Hector Guerra, Chief Environmental Planner at the address shown above. He may be contacted by e-mail at [hguerra@co.tulare.ca.us](mailto:hguerra@co.tulare.ca.us) or by telephone at 559-624-7121.

Signature:   
Hector Guerra  
Title: Chief Environmental Planner

Date: 1/17/19

Signature:   
Reed Schenke, P.E.  
Title: RMA Director / Environmental Assessment Officer

Date: 1/17/19



**PROJECT DESCRIPTION:** The full Project description, location, and identification of potential environmental effects are contained in the attached materials. In accordance with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), the County of Tulare Resource Management Agency (RMA) will be preparing an Environmental Impact Report (EIR) to evaluate the environmental effects associated with the development of an asphalt and concrete batch plant (Project). The Project is being proposed by Dunn's Equipment, Inc. (Applicant) to produce up to 100,000 cubic yards of concrete per year of asphalt for retail/commercial sale on an approximately 20.0 acre site located south of Avenue 280 between Road 76 and State Route (SR) 99. The site is currently zoned as AE-40.

The concrete batch plant is expected to produce 100,000 cubic yards of concrete per year. Aggregate, cement, and fly ash will be delivered to the site and ready-mix concrete will be delivered from the site. The concrete and asphalt recycling operation will consist of accepting broken concrete and asphalt from contractors. The concrete and asphalt will be crushed into recycled base; it is anticipated that 30,000 tons of recycled base will be produced per year and delivered from the site. The hot-mix asphalt (HMA) batch plant is expected to produce 125,000 tons of HMA per year. Aggregate, oil, and propane will be delivered to the site and HMA will be delivered from the site. The Project would generate approximately 280 passenger car equivalent (PCE) trips during the morning peak travel periods, and 110 PCE trips during the evening peak travel periods. Site access will be provided via one main driveway connecting to the south side of Avenue 280 approximately 1,000 feet east of Road 76.

When operational, the proposed Project is proposing to operate Monday-Friday between 6:00 a.m. to 4:00 p.m., and 7:00 a.m. to 12:00 p.m. (noon) on Saturdays. Depending upon demand, summer hours may begin earlier than 6:00 a.m. A majority of the trips will occur between 7:00 a.m. and 9:00 a.m., and between 4:00 and 6:00 p.m. The Project would utilize approximately 15-20 employees and include an approximate 1,000 square foot office.

**Figures included in this Notice:**

- Figure 1 – Regional and Vicinity Location
- Figure 2 – Site Map

**Potential Approvals Required:**

The following agencies may have jurisdiction/interests concerning the proposed Project:

- California Department of Fish and Wildlife
- California Department of Forestry and Fire Protection (Cal Fire)
- California Department of Transportation (Caltrans)
- California Department of Toxic Substances Control (DTSC)
- California Department of Resources and Recycling and Recovery (Cal Recycle)
- City of Tulare
- City of Visalia
- County of Kings
- County of Tulare Health and Human Services Agency
- County of Tulare Resource Management Agencies (Fire, Flood, Public Works)



Federal Aviation Administration  
Regional Water Quality Control Board  
San Joaquin Valley Unified Air Pollution Control District  
Tulare County Airport Land Use Commission  
U.S. Fish and Wildlife Service

The following interested persons/parties are also included in this notification:

Richard Walker, 4Creeks, Inc.: [richardw@4-creeks.com](mailto:richardw@4-creeks.com)

If you require additional information related to this notice, please contact:

Hector Guerra, Chief Environmental Planner at:  
E-mail: [hguerra@co.tulare.ca.us](mailto:hguerra@co.tulare.ca.us); or  
Phone: (559) 624-7121



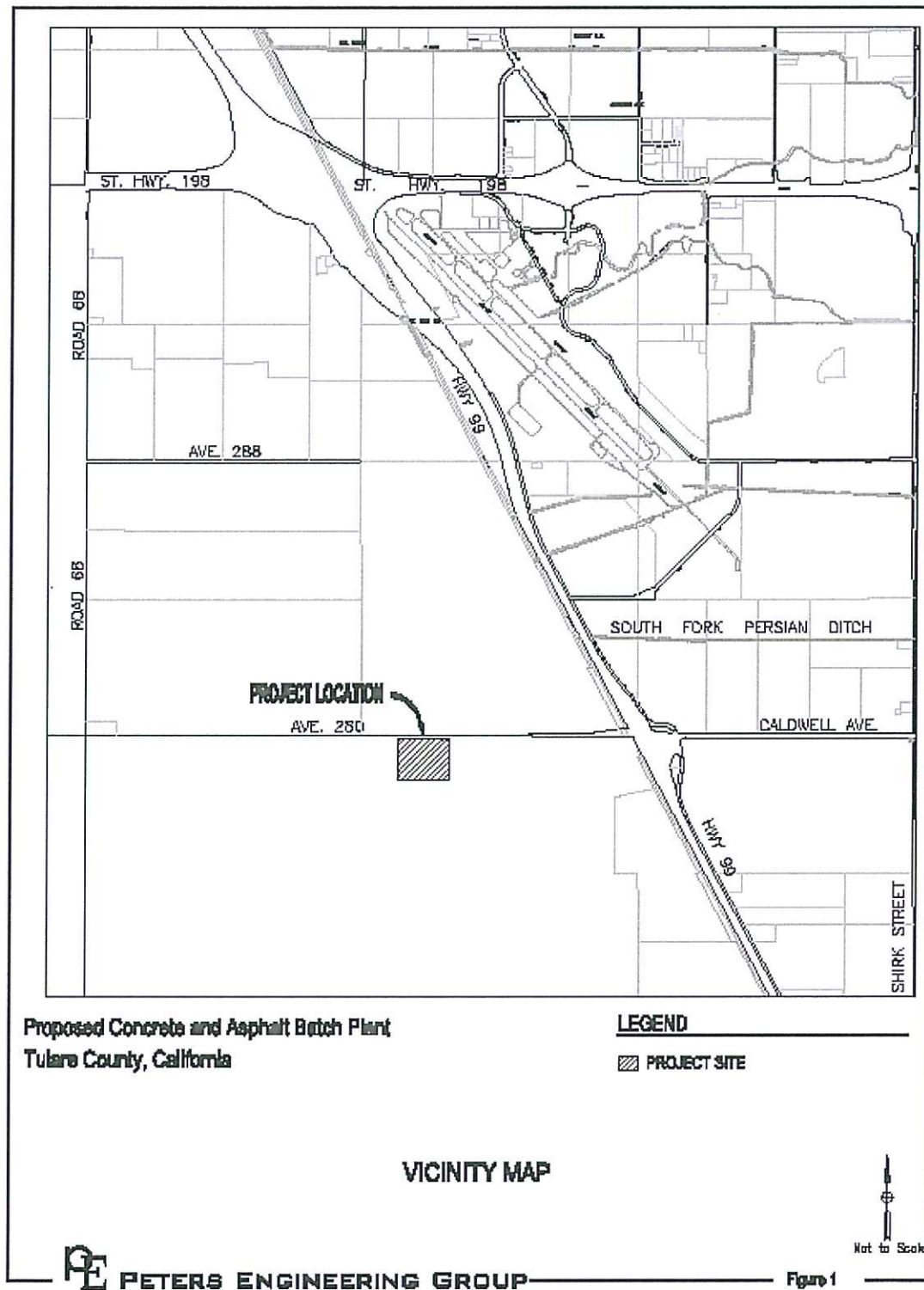
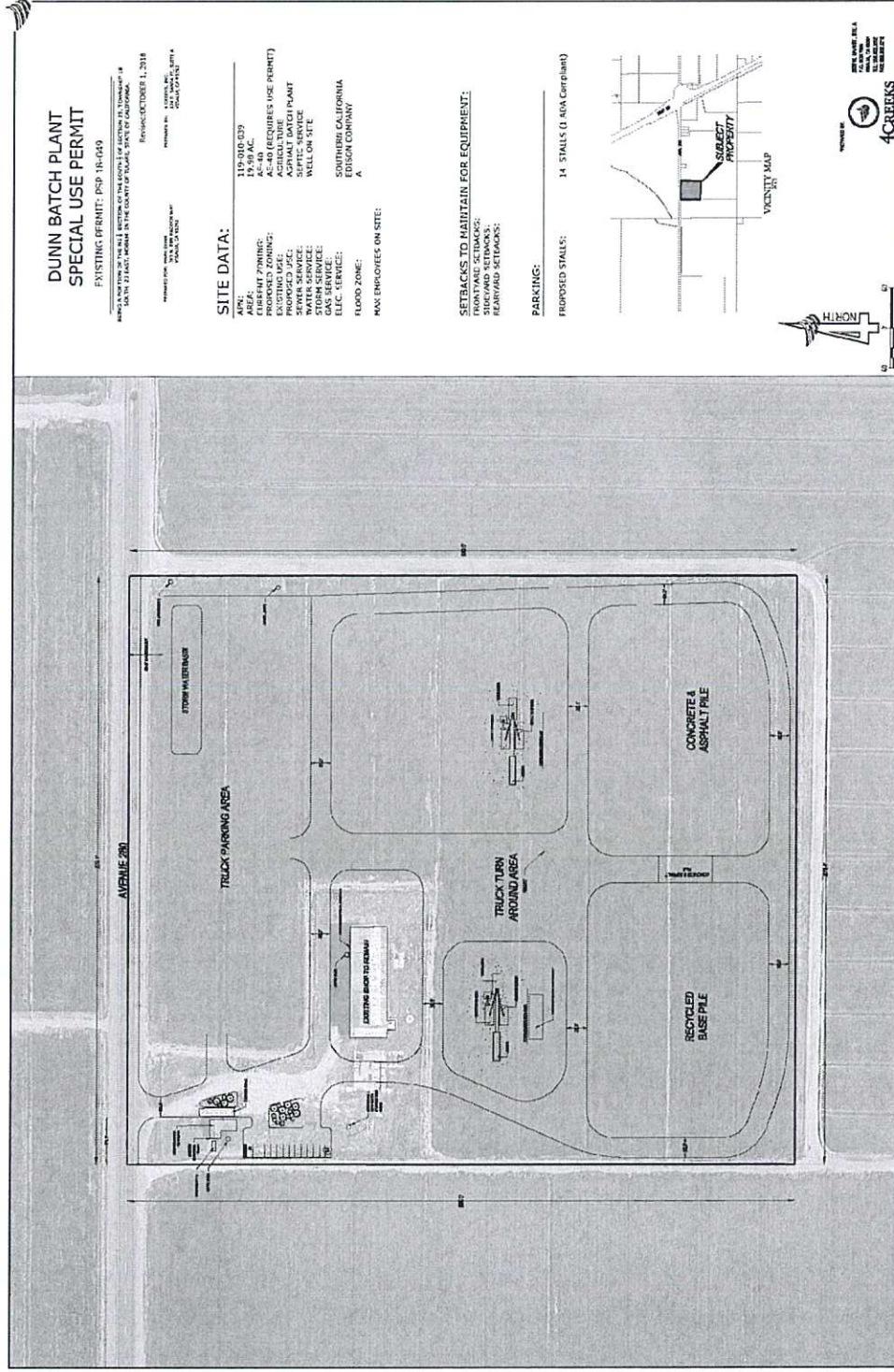




Figure 2 – Site Plan





## **PROJECT LOCATION AND SETTING**

The proposed Project will be located at the south of Avenue 280 between State Route 99 and Road 76, about  $\frac{1}{2}$  mile west of State Route 99. The approximately 20-acre proposed Project site, is located entirely within an unincorporated area of Tulare County. Specifically, the proposed Project is located on APN: 119-010-039 with a physical address of 7763 Avenue 280, Visalia, California. The proposed Project is located with the Visalia Urban Area Boundary. State Route 99 is proximate to the site thereby providing regional access to the proposed Project site: State Route 198 is located approximately two miles north of the site and could be accessed via SR 99, (see Figure 1).

The site was previously used as a cotton gin facility. It contains a shop building, office building, septic system, well with water storage tank, scale, electrical meter, asphalt drive approach, and a six-foot high chain link fence around the site's perimeter. As noted earlier, the Applicant is proposing a trucking and construction yard with a concrete batch plant, hot asphalt plant, material stockpiles, and concrete and asphalt recycling operations. The site is flat with minimal slope and is predominantly unused agricultural land (the most recent previous crop grown on site was wheat, as such, the site does not contain any orchards, vineyards, or other more permanent crop types). The site is zoned as AE-40 (Exclusive Agriculture-40 Acre minimum see Figure 2) and is proposed to remain as such pending approval of a Special Use Permit, which is the subject matter of this NOP and forthcoming EIR. No expansion of the existing footprint is being proposed. The site is surrounded by agricultural fields on all sides and is bordered by Avenue 280 (north), an existing dairy and dairy-related ag crops (west), dairy-related ag crops (south), and an existing dairy and dairy-related ag crops (east). State Route 198 is approximately 0.5 miles east and Road 76 is approximately one mile west.

## **DESCRIPTION OF PROPOSED FACILITIES**

As indicated earlier, the proposed Project consists of a concrete batch plant, recycling of concrete and asphalt, and a hot mix asphalt batch plant. The concrete batch plant is expected to produce 100,000 cubic yards of concrete per year. Aggregate, cement, and fly ash will be delivered to the site and ready-mix concrete will be delivered from the site. The concrete and asphalt recycling operation will consist of accepting broken concrete and asphalt from contractors. The concrete and asphalt will be crushed into recycled base; it is anticipated that 30,000 tons of recycled base will be produced per year and delivered from the site. The hot-mix asphalt (HMA) batch plant is expected to produce 125,000 tons of HMA per year. Aggregate, oil, and propane will be delivered to the site and HMA will be delivered from the site.

## **POTENTIAL ENVIRONMENTAL EFFECTS**

The EIR will evaluate, among other things, the probable direct and cumulative environmental impacts associated with expansion and operation of the Dunn Asphalt and Concrete Batch Plant. Mitigation measures will be recommended, where feasible, to mitigate potentially significant impacts. The proposed Project will be evaluated on its own merits, resource specific facts, and determinations; therefore, a project specific environmental document will be prepared. The following issues are proposed for analysis in the EIR:



## **Aesthetics**

The Project is located in a generally rural, agriculturally productive and dairying area. It is unlikely that its maximum height of 287' mean elevation would result in obstruction of views. Project site lighting would not likely have the potential to cause lighting and glare impacts as it is in a rural area that would operate only during daylight hours and would not include any evening operations. An existing on-site, single-story, 900 square foot building may be utilized as an office. On-site storage piles will not exceed 15 feet in height, the proposed silos will be the tallest structures on site at approximately 40-feet in height. The EIR will provide an assessment of Project impacts to visual resources, as well as lighting and glare impacts.

## **Agriculture and Forestry Resources**

The site is zoned as AE-40 and is classified as "Prime Farmland" by the California Department of Conservation Farmland Mapping and Monitoring Program". However, the site has not been in agricultural production in more than eight years and the classification may longer accurately reflect the agricultural importance of the site. As such, the proposed Project's direct and indirect impacts on agricultural resources will be analyzed in the EIR.

## **Air Quality and Greenhouse Gas Emissions**

The EIR will describe regional and local air quality in the vicinity of the proposed Project site and evaluate impacts to air quality associated with the construction, expansion, and continued operation of the Project. An air quality study will be prepared to establish baseline, project, and cumulative impacts. The proposed Project's estimated air emissions will be compared to emissions thresholds of the San Joaquin Valley Air Pollution Control District (SJVAPCD). The EIR will describe existing air quality conditions within the San Joaquin Valley Air Basin and will evaluate the proposed Project's potential air quality impacts. Potential air quality emissions impacts include odor, dust, pathogens, and construction related activities; however, the Project has incorporated design features to reduce these potential impacts, including automated sprinklers and on-site water trucks for dust control and a volatile capture and recovery system which would reduce emissions resulting from the combustion process. The EIR will also include a discussion of greenhouse gas emissions and the proposed Project's contribution to potential cumulative impacts on global climate.

## **Biological Resources**

Construction of industrial infrastructure may modify biotic habitats used by sensitive plant and wildlife species. As such, site development may be regulated by state or federal agencies, subject to provisions of the California Environmental Quality Act (CEQA), and/or covered by policies and ordinances of Tulare County. A biological report will be prepared to address issues related to: 1) sensitive biotic resources occurring on the project site; 2) the federal, state, and local laws regulating such resources; and 3) mitigation measures that may be required to reduce the magnitude of anticipated impacts and/or comply with permit requirements of state and federal resource agencies. The proposed Project's potential to affect biological resources will be analyzed in the EIR.



## **Cultural and Tribal Cultural Resources**

There are no visibly identifiable or recognizable cultural resources within the proposed Project expansion areas. As investigation will be conducted to ensure that adverse impacts to significant or unique historical resources do not occur as a result of the proposed project. It is anticipated that the study would include:

- A background records search and literature review to determine if any known cultural resources were present in the project zone and/or whether the area had been previously and systematically studied by archaeologists;
- An on-foot, intensive inventory of the study area to identify and record previously undiscovered cultural resources and to examine known sites; and
- A preliminary assessment of any such resources found within the subject property.

As such, this DEIR will include an analysis of the proposed Project's potential to affect cultural resources.

## **Geology/Soils and Mineral Resources**

Construction and operation of the proposed Project facilities on the project site could result in impacts related to geotechnical hazards, including seismicity of the area, potential for liquefaction and subsidence, potential for soil erosion, soil stability characteristics, and shrink/swell potential of site soils, as applicable. According to the USDA Natural Resources Conservation Service Soil Resource Report for Western Tulare County, the site contains Akers-Akers, saline-sodic complex, 0-2% slopes; Tagus loam, 0-2% slopes; and Nord fine sand loam, 0-2% slopes. All of the soils types are well drained soils with a Moderate Erosion Susceptibility Index (K Factor) zone. According to the Tulare County General Plan 2030 Update EIR, there are no known potential mineral resources. It is currently unknown whether the proposed Project site soils have the potential to contain paleontological resources. If such resources exist on the site, construction, expansion, and continued operational activities could result in potentially significant impacts. The EIR for the proposed Project will evaluate potential site-specific impacts related to geology, soils, mineral resources, and paleontological resources.

## **Greenhouse Gas Emissions**

Implementation of the proposed Project would result in impacts resulting from project-related greenhouse gases. The EIR will include a discussion of greenhouse gas emissions and the proposed Project's contribution to potential cumulative impacts on global climate. The proposed Project's estimated greenhouse gas emissions will be evaluated for consistency with the Tulare County 2030 General Plan, the Tulare County Climate Action Plan, and the State's 2017 Scoping Plan.



## **Hazards and Hazardous Materials**

There are no known hazards and hazardous materials located within the proposed Project site, nor is the proposed Project site located on a Cortese List site. The EIR will evaluate the potential for the proposed Project to result in, or be affected by, impacts associated with hazards and hazardous materials.

## **Hydrology/Water Quality**

FEMA FIRM maps indicate that the proposed Project area is within of the 100-Year Flood Zone and is also located outside of a Dam Failure Inundation Area. Water is supplied through an existing on-site well for use in dust control (sprinklers and water truck) and a minor amount for the office facility. The EIR will describe the proposed Project's effect, both directly and cumulatively on the hydrology, water quality, and water supply resources. The EIR will analyze the proposed Project's effect on the hydrology, water quality, and water supply resources.

## **Land Use/Planning**

The EIR will describe the proposed Project's potential effects on existing and planned land uses. The proposed Project lies within the jurisdiction of the County of Tulare and is within the Rural Valley Lands Plan Planning Area. The Tulare County General Plan 2030 Plan designates the site as being immediately outside the City of Visalia Urban Area Boundary and is zoned as AE-40 (Exclusive Agriculture-40 Acre minimum). The site is within the designated Airport Conical Zone for the Visalia Municipal Airport. The construction and operation is an allowed use per its land-use designations with an approved Special Use Permit; however, the EIR will provide a discussion of relevant local plans and policies because conflicts could potentially result in environmental impacts.

## **Noise**

The EIR will describe the Project's existing operational noise levels in addition to noise levels associated with construction and increased operational levels and will compare these levels to applicable noise thresholds to determine whether the proposed Project would result in a significant noise impact. The EIR will also consider noise generated by existing surrounding land uses, such as the Visalia Municipal Airport, and will evaluate the potential effects on the proposed Project. A noise study will be prepared to establish baseline, project, and cumulative impacts.

## **Population/Housing**

The EIR will evaluate the Project's effect on population and housing in the local area based on estimations of Project employment and distribution of the employees by place of residence.



## **Public Services**

The EIR will evaluate the proposed Project's potential to create an adverse impact to schools, and will also evaluate effects on local police and fire services along with parks and regional recreational facilities.

## **Recreation**

Although unlikely due to the nature of the proposed Project, the increase in use of parks and other recreational facilities near the vicinity of the Project will be analyzed in the EIR.

## **Transportation/Traffic**

The EIR will evaluate the Project's impact on regional and local transportation facilities based on a transportation analysis that will assess both construction-related impacts (heavy truck trips and construction worker trips), as well as operational impacts (employee trips, incoming and outgoing materials heavy-duty truck transport, access, and parking). Site access will be provided via one main driveway connecting to the south side of Avenue 280 approximately 1,000 feet east of Road 76. The study locations were determined based on the anticipated Project traffic distribution, the size of the Project, and the existing conditions in the vicinity of the Project site. The following locations will be included in the study:

1. Avenue 280 / Road 68
2. Avenue 280 / SR 99 Southbound Ramps
3. Avenue 280 / Drive 85B / Drive 88
4. SR 99 Northbound Ramps / Drive 88.

The study time periods include the weekday a.m. and p.m. peak hours determined between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. The peak hours will be analyzed for the following conditions:

- Existing Conditions;
- Existing-Plus-Project Conditions; and
- Cumulative (Year 2040) Conditions With Project.

Generally-accepted traffic engineering principles and methods will be employed to estimate the amount of traffic expected to be generated by the Project, to analyze the existing traffic conditions, and to analyze the traffic conditions projected to occur in the future. The Tulare County General Plan 2030 Update DEIR considers LOS D as the minimum acceptable LOS standard during peak hours for major roadways and intersections. A traffic study will be prepared to establish baseline, project, and cumulative impacts for the proposed Project in consultation with the City of Visalia, County of Tulare, the Tulare County Association of Governments, and CalTrans. Similarly, the Draft EIR will examine alternative traffic distribution.



## **Tribal Cultural Resources**

See earlier discussion at Cultural and Tribal Cultural Resources.

## **Utilities/Service Systems**

The proposed Project will not require extension/connection to urban services such as potable water service, wastewater treatment, and stormwater drainage. However, the EIR will analyze drainage, water, wastewater, natural gas, and electrical systems and the proposed Project's impact on these systems. The EIR will also describe the existing solid waste facilities that serve the proposed site.

## **ENERGY**

The EIR will include an analysis on the Project's potential to result in impacts on energy conservations and/or consumption.

## **GROWTH INDUCEMENT**

The EIR will evaluate the proposed Project's potential for growth inducement resulting from expansion or extension of infrastructure improvements, as well as new demand for housing, and goods and services. The effect of primary and secondary increases in employment and economic activity will be discussed.

## **CUMULATIVE IMPACTS**

The EIR will discuss the incremental contribution of the proposed Project to cumulative effects of other past, current, and planned and reasonably foreseeable Projects in the vicinity. The summary of projects method will be used where applicable. Also, to the extent feasible, the Cumulative Impacts section will quantify the degree of severity of any cumulative impact.

## **ALTERNATIVES EVALUATED IN THE EIR**

In accordance with the CEQA Guidelines Section 15126.6, the EIR will describe a reasonable range of alternatives to the proposed Project that are capable of meeting most of the proposed Project's objectives, but would avoid or substantially lessen any of the significant effects of the proposed Project. The EIR will also identify any alternatives that were considered but rejected by the Lead Agency as infeasible and briefly explain the reasons why. The EIR will also provide an analysis of the No Project Alternative.

## **OPPORTUNITY FOR PUBLIC COMMENT**

Interested individuals, groups, and agencies may provide to the County of Tulare Resource Management Agency, Planning Branch, written comments on topics to be addressed in the EIR for the proposed Project. Because of time limits mandated by state law, comments should be provided no later than **5:00 p.m. February 18, 2019**. Agencies that will need to use the EIR



when considering permits or other approvals for the proposed Project should provide the name of a staff contact person. Please send all comments to:

**Hector Guerra, Chief Environmental Planner  
Tulare County Resource Management Agency  
Economic Development and Planning Branch  
5961 South Mooney Boulevard  
Visalia, CA 93277-9394  
E-mail at: [HGuerra@co.tulare.ca.us](mailto:HGuerra@co.tulare.ca.us);  
Phone: (559) 624-7121**



## **APPENDIX G.3**

### **SCOPING MEETING**



## SCH No. 2019011039

[illegible]



## **APPENDIX G.4**

### **AGENCY COMMENT LETTERS RECEIVED**





Gavin Newsom  
Governor

STATE OF CALIFORNIA  
Governor's Office of Planning and Research  
State Clearinghouse and Planning Unit



Notice of Preparation

January 18, 2019

Tulare County  
Resource Management Agency

JAN 24 2019

To: Reviewing Agencies  
Re: Dunn Asphalt and Concrete Batch Plant (PSP 18-049)  
SCH# 2019011039

REC'D

Attached for your review and comment is the Notice of Preparation (NOP) for the Dunn Asphalt and Concrete Batch Plant (PSP 18-049) draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Hector Guerra  
Tulare County  
5961 South Mooney Boulevard  
Visalia, CA 93277-9394

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan  
Director, State Clearinghouse

Attachments  
cc: Lead Agency



**Notice of Completion & Environmental Document Transmittal**

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613  
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

2019011039

Project Title: Dunn Asphalt and Concrete Batch Plant (PSP 18-049)

Lead Agency: County of Tulare Resource Management Agency

Contact: Hector Guerra, Chief Environmental Planner

Mailing Address: 5961 S. Mooney Blvd.

Phone: 559-624-7121

City: Visalia

Zip: 93277-9394

County: Tulare County

Project Location: County: Tulare

City/Nearest Community: Visalia

Cross Streets: Avenue 280 and State Route 99

Zip Code: 93277

Latitude/Longitude: 36° 17' 52.80" N / 119° 24' 00.08" W

Total Acres: 20.0

Assessor's Parcel No: 119-010-039

Section: 8

Township: 19 S

Range: 24E

Base: MDBM

Within 2 Miles: State Hwy: SR 99

Waterways: Mill Creek

Airports: Visalia Municipal Airport

Railways: SPRR

Schools: Sycamore Valley Academy

Governor's Office of Planning & Research

**Document Type:**

CEQA:

☒ NOP

☐ Early Cons

☐ Neg Dec

☐ Mit Neg Dec

☐ Draft EIR

☐ Supplement/Subsequent EIR

(Prior SCH No.)

☐ Other:

NEPA:

☐ NOI

☐ EA

☐ FONSI

JAN 18 2019

Other:

☐ Joint Document

☐ Final Document

STATE CLEARINGHOUSE

**Local Action Type:**

☐ General Plan Update

☐ General Plan Amendment

☐ General Plan Element

☐ Community Plan

☐ Specific Plan

☐ Master Plan

☐ Planned Unit Dev.

☐ Site Plan

☐ Rezone

☐ Pre-zone

☒ Use Permit

☐ Land Division (Sub.)

☐ Annexation

☐ Redevelopment

☐ Coastal Permit

☐ Other

**Development Type:**

☐ Residential:

Units

Acres

☐ Office:

Sq. ft.

Acres

Employees

☐ Commercial:

Sq. ft.

Acres

Employees

☒ Industrial:

Sq. ft.

Acres 20.0

Employees 15-20

☐ Educational:

☐ Recreational:

☐ Water Facilities: Type

MGD

☐ Transportation:

Type

☐ Mining:

Mineral

☐ Power:

Type

MW

☐ Waste Treatment:

Type

MGD

☐ Hazardous Waste:

Type

☒ Other: Asphalt & Concrete Batch Plant

**Project Issues Discussed in Document:**

☒ Aesthetic/Visual

☒ Agricultural Land

☒ Air Quality

☒ Archaeological/Historical

☒ Biological Resources

☐ Coastal Zone

☒ Drainage/Absorption

☒ Economic/Jobs

☐ Fiscal

☒ Flood Plain/Flooding

☒ Forest Land/Fire Hazard

☒ Geologic/Seismic

☒ Minerals

☒ Noise

☒ Population/Housing Balance

☒ Public Services/Facilities

☒ Recreation/Parks

☒ Schools/Universities

☒ Septic Systems

☒ Sewer Capacity

☒ Soil Erosion/Compaction/Grading

☒ Solid/Waste

☒ Toxic/Hazardous

☒ Traffic/Circulation

☒ Vegetation

☒ Water Quality

☒ Water Supply/Groundwater

☒ Wetland/Riparian

☒ Growth Inducing

☒ Land Use

☒ Cumulative Effects

☒ Other: Tribal Cultural Res.

**Present Land Use/Zoning/General Plan Designation:**

Shop, Equipment Yard, and Farming / AE-40 (Extensive Agriculture – 40 Acre Minimum) / Agriculture

**Project Description:**

See attached page.



**Document Details Report  
State Clearinghouse Data Base**

**SCH#** 2019011039  
**Project Title** Dunn Asphalt and Concrete Batch Plant (PSP 18-049)  
**Lead Agency** Tulare County

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**Type** NOP Notice of Preparation

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**Description** The County of Tulare Resource Management Agency (RMA) will be preparing an Environmental Impact Report to evaluate the environmental effects associated with the development of an asphalt and concrete batch plant. The project is being proposed by Dunn's Equipment, Inc to produce up to 100,000 cubic yards of concrete per year of asphalt for retail/commercial sale on an approximately 20.0 acre site located south of Avenue 280 between Road 76 and State Route 99. The site is currently zoned as AE-40.

The concrete batch plant is expected to produce cubic yards of concrete per year. Aggregate, cement, and fly ash will be delivered to the site and ready-mix concrete will be delivered to the site and ready-mix concrete will be delivered from the site. The concrete and asphalt recycling operation will consist of accepting broken concrete and asphalt from contractors. The concrete and asphalt will be crushed into recycled base; it is anticipated that 30,000 tons of recycled base will be produced per year and delivered from the site. The hot-mix asphalt (HMA) asphalt plant is expected to produce 125,000 tons of HMA per year. Aggregate, oil, propane will be delivered from the site. The project would generate approx. 280 passenger car equivalent (PCE) trips during the morning peak travel periods, and 110 PCE trips during the evening peak travel periods. Site access will be provided via one main driveway connecting to the south side of Avenue 280 approximately 1,000 feet east of Road 76.

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**Lead Agency Contact**

<b>Name</b>	Hector Guerra		
<b>Agency</b>	Tulare County		
<b>Phone</b>	559-624-7121	<b>Fax</b>	
<b>email</b>			
<b>Address</b>	5961 South Mooney Boulevard		
<b>City</b>	Visalia	<b>State</b> CA	<b>Zip</b> 93277-9394

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**Project Location**

<b>County</b>	Tulare		
<b>City</b>	Visalia		
<b>Region</b>			
<b>Cross Streets</b>	Ave 280 and SR 99		
<b>Lat / Long</b>	36° 17' 52.80" N / 119° 24' 00.08" W		
<b>Parcel No.</b>	119-010-039		
<b>Township</b>	19S	<b>Range</b> 24E	<b>Section</b> 8
			<b>Base</b> MDBM

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**Proximity to:**

<b>Highways</b>	SR 99
<b>Airports</b>	Visalia Municipal Airport
<b>Railways</b>	SPRR
<b>Waterways</b>	Mill Creek
<b>Schools</b>	Sycamore Valley Academy
<b>Land Use</b>	Shop, equipment yard, and farming/ AE-40 (Extensive Agriculture - 40 Acre minimum)/ Agriculture

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**Project Issues** Aesthetic/Visual; Agricultural Land; Air Quality; Biological Resources; Archaeologic-Historic; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Growth Inducing; Landuse; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Sewer Capacity; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Solid Waste; Traffic/Circulation; Tribal Cultural Resources; Wetland/Riparian; Water Supply; Water Quality; Vegetation

Note: Blanks in data fields result from insufficient information provided by lead agency.



**Document Details Report  
State Clearinghouse Data Base**

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<b>Reviewing Agencies</b>	Resources Agency; Department of Conservation; Central Valley Flood Protection Board; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 4; Native American Heritage Commission; Public Utilities Commission; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 6; Air Resources Board, Major Industrial Projects; Resources, Recycling and Recovery; State Water Resources Control Board, Division of Drinking Water; State Water Resources Control Board, Division of Drinking Water, District 24; Regional Water Quality Control Bd., Region 5 (Fresno)
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<b>Date Received</b>	01/18/2019	<b>Start of Review</b>	01/18/2019	<b>End of Review</b>	02/19/2019
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Note: Blanks in data fields result from insufficient information provided by lead agency.



# NOP Distribution List

County: Tulare

SCH#

2019011039

## Resources Agency

- ☒ Resources Agency  
Nadell Gayou
- ☐ Dept. of Boating & Waterways  
Denise Peterson
- ☐ California Coastal Commission  
Alyson Hitt
- ☐ Colorado River Board  
Elsa Contreras
- ☒ Dept. of Conservation  
Crina Chan
- ☐ Cal Fire  
Dan Foster
- ☒ Central Valley Flood Protection Board  
James Herola
- ☒ Office of Historic Preservation  
Ron Parsons
- ☐ Dept of Parks & Recreation  
Environmental Stewardship Section
- ☐ S.F. Bay Conservation & Dev't. Comm.  
Steve Goldbeck
- ☒ Dept. of Water Resources  
Nadell Gayou
- ☐ Fish and Game
- ☐ Depart. of Fish & Wildlife  
Scott Flint  
Environmental Services Division
- ☐ Fish & Wildlife Region 1  
Curt Babcock
- ☐ Fish & Wildlife Region 1E  
Laurie Harnsberger
- ☐ Fish & Wildlife Region 2  
Jeff Drongesen
- ☐ Fish & Wildlife Region 3  
Craig Weightman

- ☒ Fish & Wildlife Region 4  
Julie Vance
- ☐ Fish & Wildlife Region 5  
Leslie Newton-Reed  
Habitat Conservation Program
- ☐ Fish & Wildlife Region 6  
Tiffany Ellis  
Habitat Conservation Program
- ☐ Fish & Wildlife Region 6 I/M  
Heldi Calvert  
Inyo/Mono, Habitat Conservation Program
- ☐ Dept. of Fish & Wildlife M  
William Paznokas  
Marine Region
- ☐ Other Departments
- ☐ California Department of Education  
Lesley Taylor
- ☐ OES (Office of Emergency Services)  
Monique Wilber
- ☐ Food & Agriculture  
Sandra Schubert  
Dept. of Food and Agriculture
- ☐ Dept. of General Services  
Cathy Buck  
Environmental Services Section
- ☐ Housing & Comm. Dev.  
CEQA Coordinator  
Housing Policy Division
- ☐ Independent Commissions/Boards
- ☐ Delta Protection Commission  
Erik Vink
- ☐ Delta Stewardship Council  
Anthony Navasero
- ☐ California Energy Commission  
Eric Knight

- ☒ Native American Heritage Comm.  
Debbie Treadway
- ☒ Public Utilities Commission  
Supervisor
- ☐ Santa Monica Bay Restoration  
Guangyu Wang
- ☐ State Lands Commission  
Jennifer Deleong
- ☐ Tahoe Regional Planning Agency (TRPA)  
Cherry Jacques
- ☐ Cal State Transportation Agency CalSTA
- ☒ Caltrans - Division of Aeronautics  
Phillip Crimmins
- ☐ Caltrans - Planning  
HQ LD-IGR  
Christian Bushong
- ☒ California Highway Patrol  
Suzann Ikeuchi  
Office of Special Projects
- ☐ Dept. of Transportation
- ☐ Caltrans, District 1  
Rex Jackman
- ☐ Caltrans, District 2  
Marcelino Gonzalez
- ☐ Caltrans, District 3  
Susan Zanchi
- ☐ Caltrans, District 4  
Patricia Maurice
- ☐ Caltrans, District 5  
Larry Newland
- ☒ Caltrans, District 6  
Michael Navarro
- ☐ Caltrans, District 7  
Dianna Watson
- ☐ Caltrans, District 8  
Mark Roberts

- ☐ Caltrans, District 9  
Gayle Rosander
- ☐ Caltrans, District 10  
Tom Dumas
- ☐ Caltrans, District 11  
Jacob Armstrong
- ☐ Caltrans, District 12  
Maureen El Harake
- ☐ Cal EPA
- ☐ Air Resources Board
- ☐ Airport & Freight  
Jack Wursten
- ☐ Transportation Projects  
Nesamani Kalandiyur
- ☒ Industrial/Energy Projects  
Mike Tollstrup
- ☒ California Department of Resources, Recycling & Recovery  
Kevin Taylor/Jeff Esquivel
- ☐ State Water Resources Control Board  
Regional Programs Unit  
Division of Financial Assistance
- ☒ State Water Resources Control Board  
Cindy Forbes - Asst Deputy  
Division of Drinking Water
- ☒ State Water Resources Control Board  
Div. Drinking Water # 24
- ☐ State Water Resources Control Board  
Student Intern, 401 Water Quality Certification Unit  
Division of Water Quality
- ☐ State Water Resources Control Board  
Phil Crader  
Division of Water Rights
- ☐ Dept. of Toxic Substances Control Reg. #  
CEQA Tracking Center
- ☐ Department of Pesticide Regulation

- ☐ Regional Water Quality Control Board (RWQCB)
- ☐ RWQCB 1  
Cathleen Hudson  
North Coast Region (1)
- ☐ RWQCB 2  
Environmental Document Coordinator  
San Francisco Bay Region (2)
- ☐ RWQCB 3  
Central Coast Region (3)
- ☐ RWQCB 4  
Teresa Rodgers  
Los Angeles Region (4)
- ☐ RWQCB 5S  
Central Valley Region (5)
- ☒ RWQCB 5F  
Central Valley Region (5)  
Fresno Branch Office
- ☐ RWQCB 5R  
Central Valley Region (5)  
Redding Branch Office
- ☐ RWQCB 6  
Lahontan Region (6)
- ☐ RWQCB 6V  
Lahontan Region (6)  
Victorville Branch Office
- ☐ RWQCB 7  
Colorado River Basin Region (7)
- ☐ RWQCB 8  
Santa Ana Region (8)
- ☐ RWQCB 9  
San Diego Region (9)
- ☐ Other
- ☐ Conservancy



## NATIVE AMERICAN HERITAGE COMMISSION

Cultural and Environmental Department  
1550 Harbor Blvd., Suite 100  
West Sacramento, CA 95691  
Phone (916) 373-3710  
Email: [nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)  
Website: <http://www.nahc.ca.gov>  
Twitter: @CA\_NAHC



January 25, 2019

Hector Guerra  
Tulare County  
5961 South Mooney Boulevard  
Visalia, CA 93277-9394

RE: SCH# 2019011039 Dunn Asphalt and Concrete Batch Plant (PSP 18-049), Tulare County

Dear Mr. Guerra:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

**Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**



## AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
  - a. A brief description of the project.
  - b. The lead agency contact information.
  - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
  - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
  - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
  - a. Alternatives to the project.
  - b. Recommended mitigation measures.
  - c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).
4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
  - a. Type of environmental review necessary.
  - b. Significance of the tribal cultural resources.
  - c. Significance of the project's impacts on tribal cultural resources.
  - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
  - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
  - b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).



7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
  - a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
  - b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
  - a. Avoidance and preservation of the resources in place, including, but not limited to:
    - i. Planning and construction to avoid the resources and protect the cultural and natural context.
    - ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
  - b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
    - i. Protecting the cultural character and integrity of the resource.
    - ii. Protecting the traditional use of the resource.
    - iii. Protecting the confidentiality of the resource.
  - c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
  - d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
  - e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
  - f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
  - a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
  - b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
  - c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: [http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation\\_CalEPAPDF.pdf](http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf)



## SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: [https://www.opr.ca.gov/docs/09\\_14\\_05\\_Updated\\_Guidelines\\_922.pdf](https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf)

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
  - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>

## NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center ([http://ohp.parks.ca.gov/?page\\_id=1068](http://ohp.parks.ca.gov/?page_id=1068)) for an archaeological records search. The records search will determine:
  - a. If part or all of the APE has been previously surveyed for cultural resources.
  - b. If any known cultural resources have already been recorded on or adjacent to the APE.
  - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
  - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
  - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.



3. Contact the NAHC for:
  - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
  - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
  - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
  - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: [Sharaya.Souza@nahc.ca.gov](mailto:Sharaya.Souza@nahc.ca.gov).

Sincerely,

  
for  
Sharaya Souza  
Staff Services Analyst

cc: State Clearinghouse



State of California  
Native American Heritage Commission  
1550 Harbor Blvd., Ste. 100  
West Sacramento, CA 95691

Tulare County  
Resource Management Agency

JAN 31 2019

REC'D

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January 29, 2019

Tulare County  
Resource Management Agency

VIA EMAIL: [HGUERRA@CO.TULARE.CA.US](mailto:HGUERRA@CO.TULARE.CA.US)

Mr. Hector Guerra  
Tulare County  
5961 South Mooney Boulevard  
Visalia, CA 93277-9394

FEB 04 2019

REC'D

Dear Mr. Guerra:

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR  
THE DUNN ASPHALT AND CONCRETE BATCH PLANT, SCH# 2019011039

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the Notice of Preparation submitted by Tulare County (County) for the Dunn Asphalt and Concrete Batch Plant (project). The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments and recommendations with respect to the proposed project's potential impacts on agricultural land and resources.

Project Description

The proposed project would produce up to 100,000 cubic yards of concrete per year for retail/commercial sale on an approximately 20-acre site located south of Avenue 280 between Road 76 and State Route 99. The recycling operation would accept concrete and asphalt from contractors, and would crushed those materials into recycled base. It is anticipated that 30,000 tons of recycled base will be produced per year and delivered from the site. The hot-mix asphalt (HMA) batch plant is expected to produce 125,000 tons of HMA per year. The project site is: zoned agriculture, and is designated as Prime Farmland according to the most recent Important Farmland Map produced by the Department of Conservation's Farmland Mapping and Monitoring Program<sup>1</sup>.

Department Comments

The conversion of agricultural land represents a permanent reduction and significant impact to the State's agricultural land resources. Under CEQA, a lead agency should not approve a project if there are feasible alternatives or feasible mitigation measures available that would lessen the significant effects of the project.<sup>2</sup> All mitigation measures that are potentially feasible

<sup>1</sup> Department of Conservation, Farmland Mapping and Monitoring Program, California Important Farmland Finder, 2016, <https://maps.conservation.ca.gov/DLRP/CIFF/>

<sup>2</sup> California Environmental Quality Act Statute and Guidelines, Association of Environmental Professionals, 2017, Section 21002, page 2.



should be included in the Draft Environmental Impact Report (DEIR). A measure brought to the attention of the lead agency should not be left out unless it is infeasible based on its elements.

The Department advises the use of permanent agricultural conservation easements on land of at least equal quality and size as mitigation for the loss of agricultural land. Conservation easements will protect remaining land resources and mitigate the project impacts in accordance with CEQA Guideline § 15370. The Department highlights agricultural conservation easements because of their acceptance and use by lead agencies as an appropriate mitigation measure under CEQA. Agricultural conservation easements are an available mitigation tool and should always be considered; however, the use of conservation easements is only one form of mitigation that should be considered. Any other feasible mitigation measures should also be considered.

### Conclusion

The Department recommends the following discussion under the Agricultural Resources section of the DEIR:

- Type, amount, and location of farmland conversion resulting directly and indirectly from implementation of the proposed project.
- Impacts on any current and future agricultural operations in the vicinity; e.g., land-use conflicts, increases in land values and taxes, loss of agricultural support infrastructure such as processing facilities, etc.
- Incremental impacts leading to cumulative impacts on agricultural land. This would include impacts from the proposed project, as well as impacts from past, current, and likely future projects.
- Proposed mitigation measure for all impacted agricultural lands within the proposed project area.

Thank you for giving us the opportunity to comment on the Notice of Preparation of an Environmental Impact Report for the Dunn Asphalt and Concrete Batch Plant Project. Please provide this Department with notices of any future hearing dates as well as any staff reports pertaining to this project. If you have any questions regarding our comments, please contact Farl Grundy, Environmental Planner at (916) 324-7347 or via email at [Farl.Grundy@conservation.ca.gov](mailto:Farl.Grundy@conservation.ca.gov).

Sincerely,



Monique Wilber  
Conservation Program Support Supervisor





**TULARE COUNTY  
HEALTH & HUMAN SERVICES AGENCY**

Jason T. Britt, M.S.  
Agency Director

Nilsa Gonzalez • Public Health Branch Deputy Director • Environmental Health Director

January 31, 2019

HECTOR GUERRA  
RESOURCE MANAGEMENT AGENCY  
5961 SOUTH MOONEY BLVD  
VISALIA CA 93277

**RE: NOP of DRAFT EIR; DUNN ASPHALT & CONCRETE BATCH PLANT**

Dear Mr. Guerra:

This office has reviewed the above referenced matter. Based upon our review, we offer the following comments for this project:

1. If the site will ever handle or store quantities of hazardous materials in excess of 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of a compressed gas, or **any** amount of a hazardous waste, then the site(s) will be required to submit a Hazardous Materials Business Plan to TCEHSD. The facility operator(s) shall immediately contact TCEHSD at (559) 624-7400 if the site(s) ever meet these threshold quantities.
2. The site may require a Solid Waste Facility Permit with TCEHSD. Applicant shall contact Keith Jahnke, at (559) 624-7400, to determine submittal requirements.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ted Martin".

Ted Martin  
Environmental Health Specialist  
Environmental Health Services Division

Cc: J.Gaona-EH, K.Jahnke-EH



**DEPARTMENT OF TRANSPORTATION****DISTRICT 6**

1352 WEST OLIVE AVENUE  
P.O. BOX 12616  
FRESNO, CA 93778-2616  
PHONE (559) 488-7396  
FAX (559) 488-4088  
TTY 711  
[www.dot.ca.gov](http://www.dot.ca.gov)

Tulare County  
Resource Management Agency

FEB 25 2019



Making Conservation  
a California Way of Life.

February 15, 2019

06-TUL-99-36.85

2135-IGR/CEQA

NOP

DUNN ASPHALT/CONCRETE BATCH PLANT

SCH # 2019011039

Mr. Hector Guerra  
Chief Environmental Planner  
Tulare County Resource Management Agency  
5961 S Mooney Blvd.  
Visalia, CA 93277

Dear Mr. Guerra:

Thank you for the opportunity to review the Notice of Preparation (NOP) for a Draft Environmental Impact Report (DEIR) to allow a proposed Asphalt & Concrete Batch Plant (Project). The Project consists of a concrete batch plant, concrete and asphalt recycling, and a hot-mix asphalt (HMA) batch operation. Aggregate, cement, and fly ash will be delivered to the site to produce ready-mix concrete. The concrete batch plant is expected to produce 100,000 cubic yards of ready-mix concrete per year. The recycled concrete and asphalt operation will accept broken concrete and asphalt from contractors to be crushed into a recycled base. The recycling operation is expected to produce 30,000 tons of recycled base per year. The HMA batch facility will accept delivery of aggregate, oil, and propane and is expected to produce 125,000 tons of HMA per year. The 20-acre project site is located at 7763 Avenue 280, on the southeast corner of the Caldwell Avenue (Avenue 280) and Road 76 intersection; approximately ½ mile west of the State Route (SR) 99/Caldwell Avenue interchange.

The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. Caltrans provides the *following comments* consistent with the State's smart mobility goals that support a vibrant economy and sustainable communities:

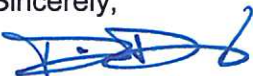
1. The NOP indicates that the DEIR will evaluate the Project's impact on regional and local transportation facilities based on a Transportation Impact Analysis (TIA) that will address both construction and operational related impacts.
2. The DEIR should identify the Project's fair share percentage and related contribution toward both interim and permanent improvements for the SR 99/Caldwell Avenue interchange improvement project.
3. Please note that Caltrans previously reviewed and commented on a draft Traffic Impact Study (TIS) prepared by a consultant (4Creeks) for the proposed Project, dated November 2, 2018 which are still valid and provided below:
  - a) Site access will be provided via one main driveway connecting to Avenue 280 approximately 1,000 feet east of Road 76.



- b) The TIS estimates the project would generate approximately 280 passenger car equivalent (PCE) trips during the morning peak travel periods, and 110 PCE trips during the evening peak travel periods.
- c) The traffic study anticipates that approximately 70% of the trips generated by the Project would directly impact SR 99 and an additional 20% would further impact the two bridge structures crossing over SR 99.
- d) As a point of information, Caltrans is working with the County of Tulare and Tulare County Association of Governments (TCAG) on the SR 99/Caldwell Avenue interchange improvement project which is planned to be completed by 2024. Caltrans has performed the Intersection Control Evaluation (ICE) analysis for the interchange improvement project and has established that roundabouts are the preferred intersection control types at the ramp intersections.
- e) The TIS indicates that the SR 99/Caldwell Avenue interchange intersection at the southbound ramps currently operate satisfactorily during the morning and evening peak travel periods (LOS C).
- f) However, the TIS indicates that with the addition of Project trips, the southbound ramp intersection would begin to operate unsatisfactorily during the morning peak travel period (LOS E). However, it is assumed with completion the SR 99/Caldwell Avenue interchange improvement project, that the resulting southbound ramps intersection would operate satisfactorily in the future conditions.
- g) Given the timing of the interchange improvement project, it does not seem practical to explore interim improvements to the southbound ramp intersection. However, if the timing of the interchange improvement project dramatically changes, then interim improvements should be re-evaluated.
- h) The TIS indicates that the SR 99/Caldwell Avenue interchange northbound ramps intersections currently operate satisfactorily during the morning and evening peak travel periods (LOS B) and would continue to operate satisfactorily with the addition of the project traffic.
- i) Please note: The northbound ramp intersection is indicated as having all-way STOP signs at the four approaches to the intersection; however, the street view mapping shows that the eastbound and westbound traffic on Caldwell (Avenue 280) do not have STOP signs. If the intersection was analyzed as an all-way stop, rather than a 2-way stop, then the resulting LOS might be incorrect. Please check and verify.
- j) To mitigate its share of the impacts to the interchange, the Project should be responsible for an equitable share of the interchange project.

If you have any other questions, please call me at (559) 488-7396.

Sincerely,



DAVID DEEL  
Associate Transportation Planner  
Transportation Planning – North





February 20, 2019

Tulare County  
Resource Management Agency

FEB 25 2019

Hector Guerra  
County of Tulare  
Tulare County Resource Management Agency  
5961 S. Mooney Blvd.  
Visalia, CA 93277

REC'D

**Project: Notice of Preparation (NOP) of a Draft Environmental Impact report (EIR)  
for Dunn Asphalt and Concrete Batch Plant (PSP 18-049)**

**District CEQA Reference No: 20190080**

Dear Mr. Guerra:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Notice of Preparation (NOP) for the Dunn Asphalt and Concrete Batch Plant (PSP 18-049) project. The proposed project consists of developing an asphalt and concrete batch plant to produce up to 100,000 cubic yards of concrete per year of asphalt for retail/commercial sale on an approximately 20.0 acre site (Project), located at 7763 Avenue 280, Visalia, CA 93277. The District offers the following comments:

**Emissions Analysis**

- 1) At the federal level for the National Ambient Air Quality Standards (NAAQS), the District is currently designated as extreme nonattainment for the 8-hour ozone standards; nonattainment for the PM2.5 standards; and attainment for the 1-Hour ozone, PM10 and CO standards. At the state level, the District is currently designated as nonattainment for the 8-hour ozone, PM10, and PM2.5 California Ambient Air Quality Standards (CAAQS). The District recommends that the Air Quality section of the Environmental Impact Report (EIR) include a discussion of the following impacts:
  - a) **Criteria Pollutants:** Project related criteria pollutant emissions should be identified and quantified. The discussion should include existing and post-project emissions.

**Samir Sheikh**  
Executive Director/Air Pollution Control Officer

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org) [www.healthyairliving.com](http://www.healthyairliving.com)

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585



- i) **Construction Emissions:** Construction emissions are short-term emissions and should be evaluated separately from operational emissions. For reference, the District's annual criteria thresholds of significance for construction are: 100 tons per year of carbon monoxide (CO), 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), 27 tons per year of oxides of sulfur (SOx), 15 tons per year of particulate matter of 10 microns or less in size (PM10), or 15 tons per year of particulate matter of 2.5 microns or less in size (PM2.5).
- *Recommended Mitigation Measure if needed:* To reduce impacts from construction related exhaust emissions, the District recommends feasible mitigation for the project to utilize off-road construction fleets that can achieve fleet average emissions equal to or cleaner than the Tier III emission standards, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations. This can be achieved through any combination of uncontrolled engines and engines complying with Tier III and above engine standards.
- ii) **Operational Emissions:** Permitted (stationary sources) and non-permitted (mobile sources) sources should be analyzed separately. For reference, the annual criteria thresholds of significance for operation of permitted and non-permitted sources each are: 100 tons per year of carbon monoxide (CO), 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), 27 tons per year of oxides of sulfur (SOx), 15 tons per year of particulate matter of 10 microns or less in size (PM10), or 15 tons per year of particulate matter of 2.5 microns or less in size (PM2.5).
- *Recommended Mitigation Measure if needed:* Project related impacts on air quality can be reduced through incorporation of design elements, for example, that increase energy efficiency, reduce vehicle miles traveled, and reduce construction exhaust related emissions.
- iii) **Recommended Model:** Project related criteria pollutant emissions from construction and operation non-permitted (limited to equipment not subject to District permits) should be identified and quantified. Emissions analysis should be performed using CalEEMod (**California Emission Estimator Model**), which uses the most recent approved version of relevant Air Resources Board (ARB) emissions models and emission factors. CalEEMod is available to the public and can be downloaded from the CalEEMod website at: [www.caleemod.com](http://www.caleemod.com).
- b) **Nuisance Odors:** The Project should be evaluated to determine the likelihood that the Project would result in nuisance odors. Nuisance orders are subjective, thus



the District has not established thresholds of significance for nuisance odors. Nuisance odors may be assessed qualitatively taking into consideration of Project design elements and proximity to off-site receptors that potentially would be exposed objectionable odors.

- c) **Health Risk Screening/Assessment:** A Health Risk Screening/Assessment identifies potential Toxic Air Contaminants (TAC's) impact on surrounding sensitive receptors such as hospitals, daycare centers, schools, work-sites, and residences. TAC's are air pollutants identified by the Office of Environmental Health Hazard Assessment/California Air Resources Board (OEHHA/CARB) (<https://www.arb.ca.gov/toxics/healthval/healthval.htm>) that pose a present or potential hazard to human health. A common source of TACs can be attributed to diesel exhaust emitted from both mobile and stationary sources. Industry specific TACs generated must also be identified and quantified.

The District recommends the Project be evaluated for potential health impacts to surrounding receptors (on-site and off-site) resulting from operational and multi-year construction TAC emissions.

- i) The District recommends conducting a screening analysis that includes all sources of emissions. A screening analysis is used to identify projects which may have a significant health impact. A prioritization, using CAPCOA's updated methodology, is the recommended screening method. A prioritization score of 10 or greater is considered to be significant and a refined Health Risk Assessment (HRA) should be performed. The prioritization calculator can be found at:  
[http://www.valleyair.org/busind/pto/emission\\_factors/Criteria/Toxics/Utilities/PRIORITIZATION%20RMR%202016.XLS](http://www.valleyair.org/busind/pto/emission_factors/Criteria/Toxics/Utilities/PRIORITIZATION%20RMR%202016.XLS).
- ii) The District recommends a refined HRA for projects that result in a prioritization score of 10 or greater. It is recommended that the Project proponent contact the District to review the proposed modeling protocol. The Project would be considered to have a significant health risk if the HRA demonstrates that the Project related health impacts would exceed the District's significance threshold of 20 in a million for carcinogenic risk and 1.0 for the Acute and Chronic Hazard Indices.

Please provide the following information electronically to the District for review:

- HRA AERMOD model files
- HARP2 files



- Summary of emissions source locations, emissions rates, and emission factor calculations and methodology.

More information on toxic emission factors, prioritizations and HRAs can be obtained by:

- E-Mailing inquiries to: [hramodeler@valleyair.org](mailto:hramodeler@valleyair.org); or
- The District can be contacted at (559) 230-6000 for assistance; or
- Visiting the Districts website (Modeling Guidance) at [http://www.valleyair.org/busind/pto/Tox\\_Resources/AirQualityMonitoring.htm](http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm)

- d) **Ambient Air Quality Analysis:** An ambient air quality analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of the ambient air quality standards. The District recommends that an AAQA be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

If an AAQA is performed, the analysis should include emissions from both Project specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff to determine the appropriate model and input data to use in the analysis. Specific information for assessing significance, including screening tools and modeling guidance is available online at the District's website [www.valleyair.org/ceqa](http://www.valleyair.org/ceqa).

- 2) In addition to the discussions on potential impacts identified above, if preliminary review indicates that an EIR should be prepared, the District recommends the EIR also include the following discussions:
- a) A discussion of the methodology, model assumptions, inputs and results used in characterizing the Project's impact on air quality. To comply with CEQA requirements for full disclosure, the District recommends that the modeling outputs be provided as appendices to the EIR. The District further recommends that the District be provided with an electronic copy of all input and output files for all modeling.
  - b) A discussion of the components and phases of the Project and the associated emission projections, including ongoing emissions from each previous phase.
  - c) A discussion of Project design elements and mitigation measures, including characterization of the effectiveness of each mitigation measure incorporated into the Project.



- d) A discussion of whether the Project would result in a cumulatively considerable net increase of any criteria pollutant or precursor for which the San Joaquin Valley Air Basin is in non-attainment. More information on the District's attainment status can be found online by visiting the District's website at: <http://valleyair.org/aqinfo/attainment.htm>.

### **District Rules and Regulations**

- 3) The proposed Project may be subject to District rules and regulations, including: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the Project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants).
- 4) This Project will be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and will require District permits. Prior to construction, the Project proponent should submit to the District an application for an Authority to Construct (ATC). For further information or assistance, the project proponent may contact the District's Small Business Assistance (SBA) Office at (661) 392-5665.
- 5) Per District Rule 9510 (Indirect Source Review) section 4.4.3, a development project on a facility whose primary functions are subject to District Rule 2201 or District Rule 2010 are exempt from the requirements of the rule. The District has reviewed the information provided and has determined that the primary functions of this Project are subject to District Rule 2201 (New and Modified Stationary Source Review Rule) or District Rule 2010 (Permits Required). As a result, District 9510 requirements and related fees do not apply to the Project referenced above.

Therefore, you are required to obtain a District Authority to Construct prior to installation of equipment that controls or may emit air contaminants, including but not limited to emergency internal combustion engines, boilers, and baghouses. For more information please visit <http://www.valleyair.org/busind/pto/ptoforms/1ptoformidx.htm> or contact the District's Small Business Assistance.

- 6) The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this Project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (661) 392-5665. Current District rules can be found online at the District's website at: [www.valleyair.org/rules/1ruleslist.htm](http://www.valleyair.org/rules/1ruleslist.htm).



The District recommends that a copy of the District's comments be provided to the Project proponent. If you have any questions or require further information, please call Michael Corder at (559) 230-5818.

Sincerely,

Arnaud Marjollet  
Director of Permit Services



Brian Clements  
Program Manager

AM: mc