

COUNTY OF TULARE
RESOURCE MANAGEMENT AGENCY



5961 South Mooney Boulevard
Visalia, CA 93277

**Matheny Tract Wastewater System
Project Feasibility Study**

**Draft Environmental Impact Report
(SCH# 2017011028)**

June 2017

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

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Appendix C: Cultural and Tribal Cultural Resources

California Historical Resources Information System search, Southern San Valley Historical Resources Information Center, at California State University, Bakersfield. January 29, 2017.

California Native American Heritage Commission Sacred Lands File, January 10, 2017.

Appendix D:

“Project Feasibility Report - Matheny Tract Wastewater System Tulare County, California, 2016”. Prepared by Provost & Pritchard, June 2015, Revised February, 2016

Appendix E: Notice of Preparation, Scoping Meeting, and Agency Comment Letters Received

Executive Summary

This Draft Environmental Impact Report (DEIR) concludes that the proposed Plainview Wastewater System Project (“Project” or “Proposed Project”) would result in ***No Substantial Impact*** on the environment. The Project would be to construct a wastewater main (including one or more lift stations) in Road 96 (Pratt Street) from Matheny Tract to connect to an existing City of Tulare (City) wastewater trunk line at Avenue 216 (Paige Avenue), a community-wide wastewater collection system, and laterals from each property with connection to each existing residence. Also, each individual septic system within Matheny Tract would be properly abandoned.

The EIR has been prepared consistent with the California Environmental Quality Act (CEQA). Its intent is to inform the public and the Tulare County Board of Supervisors of the potential environmental impacts the proposed Project could have on resources as specified in the CEQA Guidelines. This EIR, 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	Agriculture and Forestry Resources
Air Quality	Biological Resources
Cultural Resources	Geology and Soils
Greenhouse Gas Emissions	Hazards and Hazardous Materials
Hydrology and Water Quality	Land Use and Planning
Mineral Resources	Noise
Population and Housing	Public Services
Recreation	Transportation/Traffic
Utilities-and Service Systems	Tribal Cultural Resources
	Mandatory Findings of Significance

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.

The California Environmental Quality Act (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 Environmental Impact Report (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 EIR (State of California Clearinghouse # 2017011028) has been prepared by Tulare County in accordance with CEQA Guidelines §15120 through §15131 and §15161 regulating EIRs to evaluate the environmental consequences of the Project, to discuss

alternatives to the proposed Project, and 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) that was initially circulated by the County of Tulare County between January 13, 2017 and February 13, 2017. On February 9, 2017, a Public Scoping Meeting was held during the 30-day 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. Also, the NOP comment period was extended an additional 37-days from February 12, 2017 to March 30, 2017 (see Appendix “E” of this DEIR).

PROJECT DESCRIPTION

The Project being evaluated in this EIR is Alternative 2 (the Preferred Alternative; and discussed in Chapter 4 Alternatives): Connection to the existing City of Tulare wastewater treatment plant, identified by the “Project Feasibility Report - Matheny Tract Wastewater System” (Feasibility Report, or Report), described in Chapter 1 - Introduction. Project components include:

Construction of wastewater collection laterals from each home (or other uses) within Matheny Tract and connection to collection lines in the various County rights-of-way abutting the homes (or other uses) would occur. These collection lines would then inter-tie to a wastewater main line constructed within the Road 96 (Pratt Street) right-of-way extending from Matheny Tract to a City of Tulare wastewater treatment plant trunk line located at the intersection of Avenue 216 (Paige Avenue) and Road 96 (Pratt Street) (approximately 0.5 miles north of Matheny Tract). Depending on precise engineering designs, at least one lift station and other appurtenant structures may also be required. Pipelines would be installed via open-cut trenching; trenches would be closed upon completion of construction. Roadways would be repaved/resurfaced as needed and specified by the County of Tulare.

PROJECT LOCATION

The unincorporated Matheny Tract community is located less than 0.5 miles south of the City of Tulare in Tulare County in California’s Central Valley. As noted earlier, this document has been prepared using the Preferred Alternative as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. The Project site is located approximately 60 miles east of the Coastal Range and approximately 25 miles west of the foothills of the Sierra Nevada Mountain Range. The topography of Matheny Tract comprises of a relatively flat, level surface with no major slopes, mountain hillsides, or bodies of water. Matheny Tract sits at an approximate elevation of 263 feet above mean sea level.¹

The community is separated into two segments, the northern and southern portions. The northern portion (North Matheny) is generally bounded by Road 96 (Pratt Street) and “I” Street

¹ Final Project Feasibility Report Matheny Tract Wastewater System Tulare County, California. Page 5. Prepared by Provost & Pritchard Consulting Group February 2016

in the east-west direction and Wade and Addie Avenues in the north-south direction. Adjacent to “I” Street, the Union Pacific Railroad tracks are elevated approximately 10-feet above natural ground surface; these railroad tracks serve as a physical boundary between the City of Tulare and the Matheny Tract.

The southern portion (South Matheny) is generally bounded by Road 96 on the west and Prine and Matheny Avenues in the north-south direction. The Matheny Tract is bordered by agriculture lands to the west, north and south; agriculture land also lies between the northern and southern portions of the community.

The Project is within the north half of the southeast quarter of Section 22, the north half of the southwest corner of Section 23, and the north half of the northeast quarter of Section 27, Township 20 South, Range 24 East, Mount Diablo Base & Meridian of the Public Land Survey System. It can be found within the Tulare United States Geological Survey (USGS) 7.5-minute topographic quadrangle.

North Matheny (Canal Street and Beacon Avenue):

Latitude: 36°10’20.90" N

Longitude: 119°20’55.95" W

South Matheny (Matheny Avenue and Prine Drive):

Latitude: 36°10’01.11" N

Longitude: 119°21’14.90" W

As a whole community, Matheny Tract is approximately 0.5 miles west of State Route (SR) 99, two miles south of SR 137, and approximately three miles southeast of SR 63.

PROJECT ELEMENTS

The community has potable water supplied through a community water system which is owned and operated by Pratt Mutual Water Company (PMWC); however, PMWC is in process of building a new water system which will include consolidation with the City of Tulare. Once the project is complete, PMWC will be dissolved.

The community is unsewered and relies on individual on-site septic systems for wastewater disposal. The average lot size indicates adequate space for septic systems with a community water system; however, as noted above there are many lots with more than one dwelling and which may have more than one septic system onsite or have insufficient space to support efficient and effective septic effluent leaching. Additionally, many parcels have been divided, multiple times in some cases, to sizes as small as 6,000 square feet. Nearly 15% of the lots are now less than 12,500 square feet, which is the County of Tulare minimum lot size (see Tulare County Code 7-01-1350) for septic systems with a community water system.”²

Construction-related activities of the Project are anticipated to take place 8 hours a day for a total of 120 working days (approximately 6 months depending upon weather, holidays, and weekend

² Op. Cit. 2.

work). It is anticipated that the Project's construction-related activities would require approximately eight (8) construction workers, depending on daily activities, resulting in an average of approximately 16 to 32 construction vehicle trips per day. Location of the pipeline will require construction activities in the middle of the road with equipment located on one side of the trench and materials and trench spoils on the other side of the trench. This will require continual traffic control around trenching activities. It is anticipated that two-way traffic will be maintained throughout most of the construction period. Construction-related activities of the Project would require temporary staging and storage areas for the materials and equipment.

Permits and approvals would require coordination with the San Joaquin Valley Unified Air Pollution Control District (Air District). The Air District has regulations in place to minimize the release of criteria pollutant emissions, specifically oxides of nitrogen (NOx) and particulate matter (PM10 and PM2.5), during construction-related activities.

PROJECT OBJECTIVES & BENEFITS

Project Objectives

The following seven (7) objectives are desirable if the Project is constructed:

Objective 1: Connection to the City of Tulare wastewater treatment facility

Benefit: Construct a system capable of accessing the City of Tulare wastewater treatment facility which would provide adequate on-site wastewater removal and treatment services for Matheny; (provide an average daily flow of 110,000 million gallon per day (mgd) to meet the wastewater disposal requirements of the community.).

Objective 2: Abandonment of on-site septic tank/leach line systems

Benefit: Eventual abandonment of the existing individual residential on-site septic tank/leach line systems located within Matheny Tract.

Objective 3: Beneficial Environmental Impacts

Benefit: Provide a system that has the least potential to result in adverse environmental impacts and would provide an environmental benefit by eliminating wastewater discharge from on-site system tanks into the ground.

Objective 4: Avert a stand-alone wastewater treatment facility

Benefit: Avoid construction of a stand-alone wastewater treatment facility (including percolation ponds) in Matheny Tract. This would be the most expensive Alternative to the Project and would likely result in an economic and unaffordable hardship to Matheny Tract's residents.

Objective 5: *Protect groundwater supply*

Benefit: Treat collected wastewater so as to remove constituents, such as BOD, suspended solids, nitrogen, and waterborne bacteria and viruses, to a greater extent, thereby improving subsurface water quality in the receiving groundwater basin relative to current environmental conditions.

Objective 6: *Cost-Efficiency*

Benefit: Provide the most cost-effective, safe, and reliable means to collect and treat wastewater to Title 22 standards.

Objective 7: *Affordable and Effective*

Benefit: Implement an as affordable fees schedule to efficiently and effectively maintain and operate the wastewater system to enhance the quality of life for Matheny Tract residents.

Tulare County Objectives

The Project's purpose is consistent with a summary of key 2030 Tulare County General Plan Policies, 2015-2030 Tulare County Housing Element Policies, and Action Program 9 – Housing Related Infrastructure Needs as stated below:

Key General Plan Policies

Each resource-specific section of Chapter 3 contains a list of applicable General Plan Policies. Following is a summary of the 114 General Plan Policies the Project would support:

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 growth boundaries for all urban areas located in the County.

AG-1.10 Extension of Infrastructure into Agricultural Areas - The County shall oppose extension of urban services, such as sewer lines, water lines, or other urban infrastructure, into areas designated for agriculture use unless necessary to resolve a public health situation. Where necessary to address a public health issue, services should be located in public rights-of-way in order to prevent interference with agricultural operations and to provide ease of access for operation and maintenance. Service capacity and length of lines should be designed to prevent the conversion of agricultural lands into urban/suburban uses.

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-1.7 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 appropriate, the County will evaluate each new project under the updated General Plan to determine its consistency with the emission reduction strategies.

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.

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.

PFS-3.4 Alternative Rural Wastewater Systems - The County shall consider alternative rural wastewater systems for areas outside of community UDBs and HDBs that do not have current systems or system capacity. For individual users, such systems include elevated leach fields, sand filtration systems, evapotranspiration beds, osmosis units, and holding tanks. For larger generators or groups of users, alternative systems, including communal septic tank/leach field systems, package treatment plants, lagoon systems, and land treatment, can be considered.

HS-1.2 Development Constraints - The County shall permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.

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.

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.

PFS-1.8 Funding for Service Providers - The County shall encourage special districts, including community service districts and public utility districts to:

1. Institute impact fees and assessment districts to finance improvements,
2. Take on additional responsibilities for services and facilities within their jurisdictional boundaries up to the full extent allowed under State law, and
3. Investigate feasibility of consolidating services with other districts and annexing systems in proximity to promote economies of scale, such as annexation to city systems and regional wastewater treatment systems.

PF-6.4 UDBs and Interagency Coordination - The County shall use UDBs to provide a definition of an urban area for other planning programs, such as:

1. The area within the UDB should be considered as the same area for which water and sewer system planning may be needed and to be a consideration in the determination of an area required to adequately assess the availability and sufficiency of water supplies.

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.

2015-2030 Tulare County Housing Element Policies

Policy 2.21 Require all proposed housing within the development boundaries of unincorporated communities is either (1) served by community water and sewer, or (2) that physical conditions permit safe treatment of liquid waste by septic tank systems and the use of private wells.

Action Program 9 – Housing Related Infrastructure Needs

Provide vital information used for planning and development purposes, target expansion or repair of infrastructure and municipal services to areas with the most need and secure Federal and State funding for housing-related infrastructure. Provide technical assistance to PUDs, CSDs, and Mutual to fund infrastructure improvement and expansion, ensure safe and adequate water and liquid waste disposal, and have an equitable balance of fees between new and existing residents.

PFS-2.5 New Systems or Individual Wells - Where connection to a community water system is not feasible per PFS-2.4: Water Connections, service by individual wells or new community systems may be allowed if the water source meets standards for quality and quantity.

Lastly, all one hundred fourteen (114) Policies are listed in Chapter 7.

Project Benefits Statement

The Project will provide the following public and private benefits to Tulare County:

- 1) Collect an average daily flow of approximately 130,000 mgd in domestic wastewater and transport it to the City of Tulare wastewater treatment plant for treatment and disposal to meet the wastewater disposal requirements of existing residents and other uses;
- 2) Reduce and/or remove the threat of potential groundwater contamination caused by seepage of wastewater from failing and improperly operating septic systems into the underground water supply in the Community and surrounding areas;
- 3) Design and construct a wastewater system capable of adequately servicing the existing land uses and planned growth within the Matheny Tract Urban Area Boundary; and
- 4) Operate and maintain a wastewater system as affordably and cost effectively as possible for the users of the system in Matheny Tract.

SUMMARY OF CHAPTERS

Chapter 1 Introduction

The County of Tulare is proposing a Project for the unincorporated community of Matheny Tract that would connect to the existing City of Tulare wastewater treatment plant, and construction of wastewater collection laterals from each home or business within Matheny Tract. These collection lines which would then inter-tie to the mainline that would deliver the wastewater to the City's wastewater trunk line and subsequently to the City's wastewater treatment plant approximately 0.5 miles north of Matheny Tract.

The unincorporated community of Matheny Tract is a disadvantaged community situated primarily south of Avenue 216 (Paige Avenue) and east of Road 96 (Pratt Street). According to the 2010 U.S. Census, Matheny Tract had 320 total residential units within an average household size of 3.79 persons. Matheny Tract is currently served by a community water system that will transition/consolidate with the City of Tulare. Sewage disposal is provided through individual septic tank/leach line systems.

The Project is within the north half of the southeast quarter of Section 22, the north half of the southwest corner of Section 23, and the north half of the northeast quarter of Section 27, Township 20 South, Range 24 East, Mount Diablo Base & Meridian of the Public Land Survey System. Matheny Tract is dominated by residential with only three commercial uses and three

religious establishments at this time. Matheny Tract has paved roads that provide adequate circulation within all areas of the community. Of the 302 parcels included in this project, all but 17 are zoned R-A-M (Rural Residential, Special Mobil home Zone). Five (5) parcels are zoned AE-20 (Exclusive Agriculture Zone – 20 Acre Minimum); five (5) parcels are zoned R-2 (Two Family Residential Zone); one (1) parcel is zoned C-1 (Neighborhood Commercial Zone); two (2) parcels are zoned C-2-M (General Commercial, Special Mobil home Zone); and three (3) parcels are zoned C-2 (General Commercial Zone).

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 County of Tulare is proposing a Project for the unincorporated community of Plainview that would connect to the existing City of Lindsay wastewater treatment plant, and construction of wastewater collection laterals from each home or business within Plainview, and connection to collection lines which would then inter-tie to mainline that would deliver the wastewater to the City of Lindsay wastewater treatment plant. As noted earlier, the Project area is zoned R-A-M (Rural Residential, Special Mobil home Zone); AE-20 (Exclusive Agriculture Zone – 20 Acre Minimum); R-2 (Two Family Residential Zone); C-1 (Neighborhood Commercial Zone); C-2-M (General Commercial, Special Mobil home Zone); C-2 (General Commercial Zone). The Project site is not located on Williamson Act-contracted land.

In summary, Chapter 2 contains the following:

- **Project Location:** south of Avenue 216 (Paige Avenue) and east of Road 96 (Pratt Street), southwest of the City of Tulare, in Tulare County, California.

- Vicinity of Project Site: Generally, in the west central quadrant of Tulare County, as shown in Figure 2-1.
- Surrounding Land Uses: Predominantly Agriculture, with industrial to the east.
- Project Setting (baseline conditions information pertinent to the proposed Project): Describes the existing septic tank/leach field systems, community water supply, existing water distribution system, water supply and wells, and required approvals/permits.
- Regulatory Setting: Applicable statutes, rules, regulations, standards, policies, etc. of the County of Tulare, local or special districts, utilities, and State and Federal governments.
- Project Objectives: See pages ES-4 and ES-5, or Chapter 2, pages 2-7 and 2-8)

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 18 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 "E". Among the studies are air quality and greenhouses gases (Appendix "A"); biological (Appendix "B"), cultural (that is, archaeological, historical, and cultural resources (Appendix "C")); "Project Feasibility Report - Matheny Tract Wastewater System, Tulare County, California" (Appendix "D"); and Notice of Preparation and Public Scoping Meeting, and Agency Comment Letters Received (Appendix "E").

Chapter 4 Summary of Cumulative Impacts

A critically important component of an EIR is the Cumulative Impacts discussion. Chapter 4 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 4 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 the County of Tulare is the Lead Agency; and
- 2) Tulare County General Plan policies apply to the proposed Project.

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

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

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 4. As noted in Chapter 4, there are no Significant and Unavoidable Impacts; and Less Than Significant Impacts With Mitigation are summarized in Table 4-3 (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 4-4 (Checklist Items with Less Than Significant Impacts). Chapter 8 contains a complete list of Mitigation Measures to be implemented as part of the proposed Project. Chapter 4 also contains a No Impacts summary in Table 4-5 (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 5 is based on the criteria established for the site, an evaluation of a reasonable potential site, and the four reasonable Alternatives. The four Alternatives evaluated are:

- Alternative 1: On-site Systems with Implementation of a Septic Tank Maintenance District
- Alternative 2: Gravity Collection System and consolidation with City of Tulare

- Alternative 3: Gravity Collection System with Community Wastewater Treatment Facility
Alternative 4: 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 5-11 (Comparison of Alternatives Attaining Evaluation Criteria), contained in Chapter 5. The following is a summary of the Alternatives contained in the Matheny Tract Wastewater System Project Feasibility Report (Appendix “D” of this DEIR) which evaluates the Alternatives against Alternative 2 (City of Tulare option, the Preferred Alternative):

Alternative 1 - On-site Systems with Implementation of a Septic Tank Maintenance District. As indicated in the Feasibility Report, There are no known significant environmental impacts associated with the construction of the treatment facilities. Construction problems may include locating the new septic tanks within each property in Matheny Tract that meets access and visual sight requirements. The unknown location and condition of existing septic tanks dictates the assumption of needing new septic tanks. Formation of a Septic Tank Maintenance District would provide for some mitigation of failing septic tank systems through pumping and rehabilitation if appropriate. Advantages to this process include the simplicity of the treatment process. Disadvantages include the requirement for septic tanks within each property served (with an access easement and visual sight lines to the electrical control panel), and the need to add an anoxic tank to achieve denitrification. As noted earlier, the reliance upon on-site systems in an area with soils that are not favorable to on-site systems and small residential lots has the potential to result in adverse environmental impacts. As such, Alternative 1 is not superior to the Preferred Alternative and is not considered a viable Alternative.

Alternative 3: – Gravity Collection System with conventional treatment (that is, a new collection system and wastewater treatment facility in Matheny Tract). Construction of a New Matheny Tract Wastewater Treatment Facility could potentially meet all of the Project objectives, but would not attain all the Alternatives Evaluation Criteria, in particular, providing a system as affordable as possible for the community with the least environmental impact. As a low-income community, the residents would not likely have the resources to afford paying through user fees for the amortized costs of a constructing a complete new wastewater treatment plant infrastructure. Further, this Alternative would result in more significant impacts to air quality, agricultural, biological, cultural, greenhouse gas emissions, and noise resources compared to the Preferred Alternative resulting from development of an additional acreage (+/- 20.0 acres) and the establishment of support staff (for example, a business office to support operations and maintenance). Therefore, this Alternative would not meet the criteria as the Environmentally Superior Alternative.

Alternative 4 – No Project Alternative. The No Project Alternative would avoid all potential construction- and operations-related impacts related to agricultural land conversion, air quality, greenhouse gas emissions, noise and traffic resulting from the Preferred Alternative and each of the other Alternatives identified earlier. However, the No Project Alternative would not meet the

Evaluation Criteria of eliminating the potentially significant public health-related impacts the community is currently experiencing. 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. The No Project Alternative, while avoiding most impacts related to the physical environment resulting from the Project, would not avoid, resolve, or remedy the existing or future potential impacts related to human health from unsanitary conditions and/or water quality contamination by the continued use of individual septic tanks and leach fields. Therefore, this Alternative would not meet the criteria as the Environmentally Superior Alternative.

As discussed in Alternatives 1 and 3, each of the Alternatives could result in more adverse environmental impacts 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 **Table 5-10 Impacts of Alternatives Compared to Preferred Alternative Connection to City of Tulare WWTP** while **Table 5-11** 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 Preferred Alternative may result in adverse financial impacts to the community. The Project may result in off-setting benefits for improved quality of life related to public health and property values to the community and immediate vicinity.
- Social Effects - The Preferred Alternative would not result in disproportionate environmental effects on minority populations, low income populations, or Native Americans. The Preferred/Proposed Project does not pose any adverse environmental justice issues that would require mitigation. The project would improve the quality of life for the community.
- Growth Inducing Effects - The Preferred Alternative would not result in significant growth inducing impacts. The Project is unable to accommodate future growth due to limitations in funding. Consequently the Project would not result in new housing. Growth inducing impacts would be less than significant.

The overall conclusion contained in Chapter 6 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 7, 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 immitigable 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 Resource Management Agency RMA Director (Reed Schenke), Associate RMA Director/Economic Development and Planning Director (Michael Washam), Chief Environmental Planner (Hector Guerra) are noted.

This EIR also relied on the expertise of the consulting firm Provost & Pritchard Consulting Group in preparing the “Matheny Tract “Wastewater System Project Feasibility Report”, which is included as Appendix “D” of this EIR.

SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES

Table ES-1 Mitigation Monitoring and Reporting Program							
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
					Initials	Date	Remarks
BIOLOGICAL RESOURCES: <i>Based on the disturbed condition of the majority of the sites, reasonable inferences were made that it was unlikely that any of the sensitive species listed would actually occur onsite. However, this Project does not preclude the opportunity for special status species from accessing or traveling through the site prior or post construction phases. Historically, there have been records of special status species in the vicinity of the proposed Alternatives. Within the context of CEQA, potential impacts could result in significant impacts (especially in the event Alternative 3 (standalone Matheny Tract Community Wastewater Treatment Facility) is chosen), implementation of Mitigation Measures 3.4-1 through 3.4-7 would reduce potential impacts to Less Than Significant.</i>							
Plant Species							
Impact: Four (4) special status species are known to occur in the vicinity of the proposed Project action area. As shown in the CNDDDB results (Appendix “B”), the presence of Swainson’s hawk was indicated within 10 miles of the site in the last 10 years. No evidence is available to suggest that other raptor species are within the vicinity of the Project site (for example, through CNDDDB information and existing uses; such as residential uses, commercial uses, roadways, etc., and the absence of suitable trees for nesting).		.					
Bio 3.4-1 Avoidance: Special Status plant species: No impacts to Special Status plant species are anticipated, however, as a measure to ensure that no species occur in these areas prior to construction, if either Alternatives 2 or 3 are selected, pre-construction surveys shall be required before construction. Surveys should be timed to coincide with flowering periods for species that could occur (March-May).	Prior to start of construction.	Once within 30 days of construction, unless pre-construction survey results in new recommendation for further study and mitigation. Then mitigation should occur as recommended following coordination with Governing Entity.	Governing Entity established for operating the Wastewater System Services.	Field survey by a qualified Biologist.			

Draft Environmental Impact Report
Matheny Tract Wastewater System Project Feasibility Report

Table ES-1
Mitigation Monitoring and Reporting Program

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
					Initials	Date	Remarks
Bio 3.4-2., Minimization (Special Status Plant Species): Because no impacts to Special Status plant species are anticipated, no minimization is required, but see Mitigation Measure 3.4-1 as well. If pre-construction surveys detect special status plant species, transplantation, project modification and/or compensation shall be employed.	Prior to construction-related activities.	As needed if special status species are detected.	Governing Entity established for operating the Wastewater System Services.	Qualified biologist.			
Bio 3.4-3. Compensation (Special Status plant species): No compensation is anticipated as part of the Alternatives. If Special Status plant species are detected during pre-construction surveys in the action areas or impact footprints, compensation for impacts shall be required to compensate for impacts.	Prior to construction-related activities.	As needed if special status species are detected.	Governing Entity established for operating the Wastewater System Services.	Qualified biologist working with USFS and/or CFW			
Bio 3.4-4. Monitoring (Special Status plant species): No monitoring is required. If pre-construction surveys detect plant species along the alignments/action areas, or impact footprints, but can be avoided, construction monitoring shall be required to ensure avoidance of those sensitive areas.	During construction-related activities.	On-going during construction-related activities	Governing Entity established for operating the Wastewater System Services.	Construction manager with oversight by qualified biologist.			
<i>Animal Species</i>							
Bio 3.4-5. Avoidance (Special Status Animal Species): Impacts to all kit fox dens, potential raptor nests and other animals located along the alignments shall be avoided.	Prior to start of construction.	Once within 30 days of construction, unless pre-construction survey results in new recommendation for further study and mitigation. Then mitigation should occur as recommended	Governing Entity established for operating the Wastewater System Services.	Field survey by a qualified Biologist.			

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Table ES-1
Mitigation Monitoring and Reporting Program

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
					Initials	Date	Remarks
		following coordination with Governing Entity.					
Bio 3.4-6. Minimization (Special Status Animal Species): Minimization measures assume that some level of impact will occur (that some level of disturbance occurs). Under this approach, the Agency shall consult with DFW/USFWS. As the Agency initiates this process they can offer to perform the following measures as part of their permitting process with the agencies in order to help minimize impacts to the kit foxes, raptors and other species: <ul style="list-style-type: none"> • Revegetate disturbed areas with trees and grass from on the site or adjacent areas; • Conduct employee education programs to inform workers about sensitive biological resources they may encounter and what they should do to minimize potential impacts. 	Implemented only if sensitive species are encountered.						
3.4-7 Monitoring (Special Status Animal Species): If pre-construction surveys detect listed or protected species along any of the project alternatives, while construction occurs, a biologist will need to be on-site to educate workers, monitor compliance, [ensure implementation of] best management practices and to identify and protect natural resources, including Special Status Species. The monitor will be responsible for ensuring that appropriate measures are taken to prevent disturbance of core avoidance areas. Any unauthorized take of	During construction.	As needed during construction.	Governing Entity.	Determination by qualified biologist.			

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**Table ES-1
Mitigation Monitoring and Reporting Program**

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
					Initials	Date	Remarks
<p>Special Status species will be immediately reported to DFW by the monitor. The monitor will also notify the Project Coordinator who will stop work until corrective measures are implemented.</p> <p>The designated Project Coordinator and the designated monitor for this Project will need to be established if Agency decides to pursue mitigation and monitoring.</p>							
CULTURAL RESOURCES:							
Cul 3.5-1 - 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 Preferred/ Proposed Project site be immediately suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. In this event, the specialists shall 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	Governing Entity established for operating the Wastewater System Services via field evaluation of the resource finds by a qualified archaeologist	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.			
Cul 3.5-2 - The property owner shall avoid and minimize impacts to paleontological resources.	During Construction	Daily or as needed throughout the	Governing Entity established for	A qualified archaeologist			

Draft Environmental Impact Report
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Table ES-1
Mitigation Monitoring and Reporting Program

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
					Initials	Date	Remarks
If a potentially significant paleontological resource is encountered during ground disturbing activities, all construction within a 100-foot radius of the find shall immediately cease until a qualified paleontologist determines whether the resources requires further study. The project proponent shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The paleontologist shall notify the Tulare County Resource Management Agency and the project proponent of the procedures that must be followed before construction is allowed to resume at the location of the find. If the find is determined to be significant and the Tulare County Resource Management Agency determines avoidance is not feasible, the paleontologist shall design and implement a data recovery plan consistent with applicable standards. The plan shall be submitted to the Tulare County Resource Management Agency for review and approval. Upon approval, the plan shall be incorporated into the project.		construction period if suspicious resources are discovered	operating the Wastewater System Services via field evaluation of the resource finds by 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.			
TRANSPORTATION/TRAFFIC							
Trans 3.16-1 Fences, barriers, lights, flagging, guards, and signs will be installed as determined appropriate by the public agency having jurisdiction to give adequate warning to the public of the construction and of any potentially dangerous condition to be encountered as a result thereof.	During Construction activities	On-going during construction-related activities	County of Tulare/ Governing Entity established for constructing and operating the Wastewater	Maintenance by contractor of documentary evidence of compliance. Such records to be provided to			

Draft Environmental Impact Report
Matheny Tract Wastewater System Project Feasibility Report

Table ES-1
Mitigation Monitoring and Reporting Program

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
					Initials	Date	Remarks
			System Services via specific contractual requirements and via on-going review of records kept by contractor to document compliance	County of Tulare/Governing Entity upon request			

Chapter 1

Introduction

PROJECT SUMMARY

In 2013 the County of Tulare, on behalf of the unincorporated community of Matheny Tract, applied for and was awarded a California Strategic Growth Council and California State Water Resources Board's (Water Board) Clean Water State Revolving Fund (CWSRF) grant to fund the preparation of the proposed "Project Feasibility Report Matheny Tract Wastewater System" (Report) on February 11, 2011 (and subsequently amended September 24, 2011). The Report was adopted by the Tulare County Board of Supervisors on April 19, 2016.

The purpose of the Report was to evaluate a reasonable range of alternatives to provide community sanitary sewer service to Matheny Tract as a replacement for existing individual on-site septic tank/leach line systems. (A copy of the Report is available at the County of Tulare Resource Management Agency, 5961 South Mooney Boulevard, Visalia, CA 93277, Attention Mr. Eric Coyne, RMA Project Manager, 559-624-7000.) The Report is herewith incorporated in its entirety by reference throughout this document and is included as Appendix "D" of this DEIR.

The Report evaluated the following four specific collection, treatment, and disposal alternatives for providing sanitary sewer service to the community of Matheny Tract. Details are provided in Chapter 5 Alternatives. Following is a summary of the Alternatives:

Alternative No. 1 - On-site Systems with Implementation of a Septic Tank Maintenance District. This alternative would provide replacement of the existing on-site septic systems with systems that denitrify wastewater before discharging it, and would provide for continuation of proper maintenance of the systems by creating a Septic Maintenance District.¹

Alternative No. 2 - Gravity Collection System and Consolidation with City of Tulare. This alternative would provide construction of a wastewater collection system throughout the community with a main connection to the City of Tulare wastewater collection system and ultimate delivery to the City of Tulare Wastewater Treatment Plant (WWTP). This alternative assumes that the City of Tulare will ultimately own and operate the Matheny Tract collection system and main connection to the City of Tulare.²

Alternative No. 3 - Gravity Collection System with Community Wastewater Treatment Facility. This alternative would provide for construction of a wastewater collection system similar to the one shown in Alternative 2; however it would also provide for construction of

¹ "Project Feasibility Report Matheny Tract Wastewater System" (Report). Page 1. Appendix "D" of this document.

² Ibid.

a small independent Wastewater Treatment Facility (WWTF) within or near the Matheny Tract. This alternative would also require creation of an agency to manage and operate the community WWTP and collection system.³

Alternative No. 4. No Project. This alternative would entail no improvements to the community; the existing septic systems would remain unimproved. All operations and maintenance responsibility would remain with the individual property owners.⁴

As concluded in the Report; “Alternative No. 2, a gravity collection system and consolidation with the City of Tulare, is the preferred alternative.”⁵ “The basis of selection considered a present-worth analysis of capital and [Operations and Maintenance] O&M costs, construction concerns, and critical issues for each alternative.”⁶ “Alternative 2 is the least expensive option as well as the alternative with the least number of construction challenges and critical concerns.”⁷ Alternative 2 is the most preferred alternative by the County because it capitalizes on the economies of scale associated with consolidation of two communities, particularly a very small community and a larger agency; it is the most viable from technical, fiscal, managerial and regulatory perspectives; continued operation of septic systems, particularly at the density in Matheny Tract, does not provide the level of protecting groundwater supplies the way Alternative 2 is capable; formation of a new entity to govern a new wastewater system would not be required.⁸

LOCAL REGULATORY CONTEXT

The Tulare County General Plan 2030 Update 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 Housing Element was adopted on November 17, 2015 and certified by State of California Department of Housing and Community Development on December 9, 2015.

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 §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 §15145). This Draft Environmental Impact Report (Draft EIR, DEIR, or EIR) acknowledges this uncertainty and incorporates these

³ Op. Cit. 1-2.

⁴ Op. Cit. 2.

⁵ Op. Cit. 37.

⁶ Op. Cit.

⁷ Op. Cit. 35.

⁸ Op. Cit. 35-36.

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 §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 §15151 and §15204(a)).

CEQA Guidelines §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.”⁹

CEQA Guidelines §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...”¹⁰

Pursuant to CEQA Guidelines §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 §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

⁹ CEQA Guidelines, Section 15002 (a)

¹⁰ Ibid., Section 15002 (f)

providing a decent home and satisfying living environment for every Californian. An agency shall prepare a statement of overriding considerations as described in §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.”¹¹

IDENTIFICATION OF POTENTIALLY SIGNIFICANT IMPACTS

CEQA Guidelines §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 §15093.”¹² (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” (Public Resources Code §21068). Significant impacts must be determined by applying explicit significance criteria to compare the future project conditions to the existing environmental setting (CEQA Guidelines §15126.2(a)).

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.

CONSIDERATION OF SIGNIFICANT IMPACTS

Pursuant to CEQA Guidelines §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

¹¹ Op. Cit., Section 15021.

¹² Op. Cit., Section 15002 (h).

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.”¹³

MITIGATION MEASURES

CEQA Guidelines §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.
 - (C) Energy conservation measures, as well as other appropriate mitigation measures, shall be discussed when relevant.
 - (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

¹³ Op. Cit., Section 15126.2.

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.”¹⁴

PURPOSE OF AN ENVIRONMENTAL IMPACT REPORT

This Draft Environmental Impact Report (Draft EIR) is prepared in accordance with the California Environmental Quality Act (CEQA) to evaluate the potential environmental impacts associated with the implementation of Preferred/Proposed Project. This document has been prepared using the Preferred Alternative as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. This document is prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.).

The purpose of this Draft EIR is to inform decision-makers, representatives of affected and responsible agencies, the public, and other interested parties of the potential environmental effects that may result from implementation of the Project. This Draft EIR describes potential impacts relating to a wide variety of environmental issues and methods by which these impacts can be mitigated or avoided.

This summary is provided in accordance with the California Environmental Quality Act (CEQA) Guidelines Section 15123. As stated in CEQA Guidelines Section 15123(a), “an environmental impact report (EIR) shall contain a brief summary of the proposed actions

¹⁴ Op. Cit., Section 15126.4

and its consequences. The language of the summary should be as clear and simple as reasonably practical.” As required by the Guidelines, this Draft EIR includes (1) a summary description of the proposed project, (2) a discussion of the areas of controversy associated with the project, (3) identification of the alternatives evaluated and the environmentally superior alternative, and (4) a synopsis of environmental impacts and recommended mitigation measures.

“CEQA-PLUS” - COMPLIANCE WITH NATIONAL ENVIRONMENTAL PROTECTION ACT (NEPA) ENVIRONMENTAL REVIEW REQUIREMENTS

The County is the lead agency for the purpose of complying with the requirements of the CEQA to address the environmental consequences of implementing the Preferred/Proposed Project and its alternatives. In anticipation of the potential use of federal funds for the Preferred/Proposed Project, a “CEQA-Plus” approach has been taken with the preparation of this EIR. The CEQA-Plus approach expands the typical content requirements of an EIR to include additional information pertaining to federal environmental regulations, in accordance with the National Environmental Policy Act (NEPA), including the following:

- Endangered Species Act (ESA),
- National Historic Preservation Act (NHPA), and
- General Conformity Rule for the Clean Air Act (CAA).

In addition, the following federal forms will be completed and provided to the federal lead agency:

1. United States Department of Agriculture (USDA) Rural Utilities Service (RUS) Environmental Form
2. California State Department of Water Resources, Clean Water State Revolving Fund Environmental Information Form

This CEQA-Plus approach will allow the potential future federal lead agency to use the environmental information contained in this CEQA-Plus document in the preparation of its own NEPA compliant document.

NOTICE OF PREPARATION/NOTICE OF PUBLIC SCOPING MEETING

Pursuant to CEQA Guidelines Section 15082, a Notice of Preparation/Notice of Public Scoping Meeting (NOP/NOS) was published as a legal notice in *The Visalia Times-Delta* newspaper on January 13, 2017. Also as required by CEQA, the NOP was distributed to the State Clearinghouse of the Governor’s Office of Planning and Research (OPR), to Responsible and Trustee agencies, and to other interested parties for the required 30-day public review period beginning on January 13, 2017. The NOP announced that the County intended to prepare an Environmental Impact Report (EIR) for the Project and would

conduct a Public Scoping Meeting. The NOP described the Project and issues to be addressed in the EIR and welcomed written responses to the NOP. It also announced the date, time and location of the Public Scoping Meeting, indicating that any interested party was invited to attend and express comments and concerns and ask questions about the Project and discuss potential environmental impacts that could result. On February 9, 2017, the RMA requested that OPR/SCH extend the comment period by 37-days to March 30, 2017. In addition to newspaper notification, and agencies notification, the NOP was also made available at the County's website at:
<http://www.tularecounty.ca.gov/rma/index.cfm/planning/environmental-planning/notice-of-preparation-nop/matheny-tract-wastewater-system-nop-pdf/>

A copy of the NOP and related material is included in **Appendix "E"**. This Appendix includes comments received in response to the NOP.

The following agencies received direct notification of the NOP:

- Governor's Office of Planning and Research
- City of Tulare
- County of Tulare
- Pratt Mutual Water Company
- San Joaquin Valley Unified Air Pollution Control District
- Tulare County Local Agency Formation Commission

The Public Scoping Meeting was held during the initial 30-day NOP comment period on Thursday, February 9, 2017, at 1:30 PM, in the Conference Room "L" of the Resource Management Agency at 5961 South Mooney Blvd., Visalia, California to solicit input on the scope of the EIR. No agencies or other interested parties attended.

The staff representatives of Self Help Enterprises (affordable housing and rural infrastructure consultants) hand-delivering bilingual newsletters and brochures/notices to all residential homes within the Plainview Urban Development Boundary on April 17, 2014. The newsletters and the brochure/notice included information about the Project Alternatives being considered and an invitation to attend the Public Scoping Meeting. Comments shared during the community meeting are included as **Appendix "E"**.

Prior to the NOP commenting opportunity, a community involvement process included several efforts at community outreach. A Public Community Workshop was conducted on February 6, 2016 at Palo Verde Elementary School. The meeting was facilitated by the Leadership Counsel for Justice & Accountability and was attended by 23 adults representing 19 residences. The meeting was conducted in both English and Spanish. At a poll taken at the workshop, one hundred percent (100%) of the attendees favored connection to the City of Tulare. In addition to the community workshop, door knocking, flyering (250) and phone calls reached out (in English and Spanish) to residences on 2/2/16 and 150 residences on 2/4/16, and 300 flyers were provided to Palo Verde Elementary School for students to take home. The Matheny Tract Committee met on February 18, 2016, which was attended by 12 Matheny Tract residents and two employees of the Leadership Counsel for Justice & Accountability; all 12 residents polled favored connection to the City of Tulare.

CEQA Guidelines Section 15103 states, “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 the receipt of the notice. If they fail to reply within 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.”

The California Native American Heritage Commission provided comments (See Appendix “E”); no other Responsible or Trustee Agencies provided responses to the NOP.

Following completion of the Draft EIR, the lead agency shall publish another public legal notice, called a Notice of Availability (NOA) of the Draft EIR. The NOA will indicate that the Draft EIR document is available for public and agency review and comment. The NOA for this Draft EIR will be published in *The Visalia Times-Delta* announcing a 45-day public review/comment period. Pursuant to Guidelines Section 15105(a), this Draft EIR will also be simultaneously distributed to public agencies through the State Clearinghouse for a 45-day review and comment period.

Hard copies of the Draft EIR will also be made available during the review period at the County of Tulare Resource Management Agency (RMA) Permit Center, 5961 S. Mooney Blvd., Visalia, CA 93277, at the City of Tulare Library (located at 475 N. “M” Street in Tulare) and the County Branch in Tipton, CA (located at 301 East Woods, Tipton, CA) for public availability.

Written comments on the Draft EIR will be accepted by the County of Tulare at the address noted above between June 30, 2017 until close of business on August 14, 2017. Following completion of the 45-day public review period, responses to comments received on the Draft EIR will be prepared. A Final EIR, consisting of the Draft EIR (incorporated by reference), comments received and the Response to Comments, will then be prepared and provided to the County of Tulare RMA for consideration by the Board of Supervisors for certification at an announced open public hearing. If the EIR is certified for the Project Feasibility Study approved by the Board of Supervisors on April 4, 2016, a Notice of Determination will then be filed with the County of Tulare Clerk-Recorder and also forwarded to the State Clearinghouse.

CEQA Guidelines Section 15093 requires decision-makers to balance the benefits of a Preferred/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, at the time of certification of the EIR, adopt a statement of overriding considerations, finding that the environmental effects are acceptable in light of the project’s benefits to the public.

ORGANIZATION OF THE EIR

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

Chapter 1 – Introduction: This chapter provides a brief introduction to how the Project was identified, the environmental analysis required by CEQA, and the applicability of NEPA. It also includes a description of the Notice of Preparation and Notice of Public Scoping Meeting and a summary of comments received (if any).

Chapter 2 – Project Description: Chapter 2 describes the components of the Project, its objectives, environmental setting, and the regulatory context within which the Project is evaluated.

Chapter 3 – Environmental Analysis: This chapter includes the analysis of each of the topical areas consistent with the format of Appendix G Checklist of the CEQA Guidelines and will include identification of the following:

Baseline Conditions - Environmental Setting and Regulatory Contexts: Chapter 3 will describe the baseline conditions of the existing environmental and regulatory setting for each resource topic. This will provide the context against which significant impacts will be evaluated.

Thresholds of Significance: Using the questions contained within each resource topic of the CEQA Guidelines Appendix G checklist as the basis for thresholds of significance, the EIR will describe whether the thresholds will be exceeded by Project.

Impact Analysis: Project-level potential impacts (Project-specific) and potential cumulative impacts (the incremental impacts of the Project when added to other closely-related past, present and reasonably-foreseeable probable future projects) will be identified for this Project.

Mitigation Measure(s): Measures will be identified that can feasibly be implemented to reduce impacts to less than significant levels

Conclusion: Each conclusion will outline whether recommended mitigation measures will, based on the impact evaluation criteria, substantially reduce or eliminate, or avoid potentially significant environmental impacts. If an impact cannot be mitigated to less than significant, it will be identified as an “unavoidable significant impact”.

Status of Impact after Mitigation: Identification of whether no impact, less than significant, or significant impacts would occur following the implementation of mitigation measures. A project with unavoidable significant impacts (whether project-specific or cumulative) can only be approved if a Statement of Overriding Considerations (pursuant to Section 15093) is included in the CEQA approval action. The Statement is required to set forth the decision-makers’ reasoning, supported by substantial evidence, why the economic, legal, social, technological or other benefits of the project would outweigh the unavoidable adverse environmental effects.

Chapter 4 – Cumulative Impact Summary: This chapter summarizes the cumulative impacts identified in Chapter 3.

Chapter 5 – Alternatives: Chapter 5 describes and evaluates Alternatives to the Project. The Preferred Alternative (that is, the Project) is compared to each Alternative, and the potential environmental impacts of each are analyzed.

Chapter 6 – Economic, Social, & Growth Inducing Effects: This chapter describes economic or social effects of the Project which may be used to determine the significance of physical changes caused by the Project (Guidelines Section 15131). These economic and social effects are not in and of themselves evaluated for “significance” but only used to trace a chain of cause and effect with the focus of the analysis being on the actual *physical* changes to the environment caused thereby. This chapter will also evaluate the potential of the Project to induce further growth and the nature of that growth and the general environmental effects that could occur as a result.

Chapter 7 – Unmitigable Impacts: This chapter describes any environmental effects that cannot be avoided or that are irreversible and summarizes the substantial evidence contained in the EIR that provides the economic, legal, social, technological or other benefits that would result from the Project.

Chapter 8 – Mitigation Monitoring & Reporting Program: Provides a mitigation monitoring and reporting program that summarizes the significant environmental issues, the mitigation measures, and the agency or agencies responsible for monitoring and reporting on the implementation of the mitigation measures.

Chapter 9 – Persons Preparing the EIR: This chapter identifies all consultant(s) and agency personnel who participated in the preparation of the EIR.

Chapter 10 – References: Citations by chapter, footnoted sources, and references utilized in each chapter.

Appendices - Following the text of this Draft EIR, appendices have been included as supporting or technical reference material:

- Appendix “A” - Air Quality and Greenhouse Gas emissions (using air quality modeling results found in Appendix “A” of the adopted/certified Environmental Impact Report (SCH No. 2014081023) for the Plainview Wastewater System Project)
- Appendix “B” – Biological Resources – California Natural Diversity Database, RMA staff windshield survey, use of existing Google Earth aerial views
- Appendix “C” – Cultural Resources – CHRIS and NAHC responses
- Appendix “D” – Matheny Tract Wastewater System Project Feasibility Report
- Appendix “E” – Notice of Preparation/Public Scoping Meeting; Notice of Availability

Chapter 2

Project Description

PROJECT LOCATION

The unincorporated Matheny Tract community is located less than 0.5 miles south of the City of Tulare in Tulare County in California's Central Valley. As noted earlier, this document has been prepared using the Preferred Alternative as the proposed Project. As such, the following discussion refers to the "Preferred/Proposed Project" as "the Project". The Project site is located approximately 60 miles east of the Coastal Range and approximately 25 miles west of the foothills of the Sierra Nevada Mountain Range. The topography of Matheny Tract comprises of a relatively flat, level surface with no major slopes, mountain hillsides, or bodies of water. Matheny Tract sits at an approximate elevation of 263 feet above mean sea level.¹

The community is separated into two segments, the northern and southern portions. The northern portion (North Matheny) is generally bounded by Road 96 (Pratt Street) and "I" Street in the east-west direction and Wade and Addie Avenues in the north-south direction. Adjacent to "I" Street, the Union Pacific Railroad tracks are elevated approximately 10-feet above natural ground surface; these railroad tracks serve as a physical boundary between the City of Tulare and the Matheny Tract.

The southern portion (South Matheny) is generally bounded by Road 96 on the west and Prine and Matheny Avenues in the north-south direction. The Matheny Tract is bordered by agriculture lands to the west, north and south; agriculture land also lies between the northern and southern portions of the community.

The Project is within the north half of the southeast quarter of Section 22, the north half of the southwest corner of Section 23, and the north half of the northeast quarter of Section 27, Township 20 South, Range 24 East, Mount Diablo Base & Meridian of the Public Land Survey System. It can be found within the Tulare United States Geological Survey (USGS) 7.5-minute topographic quadrangle.

North Matheny (Canal Street and Beacon Avenue):

Latitude: 36°10'20.90" N

Longitude: 119°20'55.95" W

South Matheny (Matheny Avenue and Prine Drive):

Latitude: 36°10'01.11" N

Longitude: 119°21'14.90" W

¹ Final Project Feasibility Report Matheny Tract Wastewater System Tulare County, California. Page 5. Prepared by Provost & Pritchard Consulting Group February 2016

As a whole community, Matheny Tract is approximately 0.5 miles west of State Route (SR) 99, two miles south of SR 137, and approximately three miles southeast of SR 63.

As indicated in the Project Feasibility Report Matheny Tract Wastewater System (Feasibility Report or Report); “The Matheny Tract is located within Tulare Irrigation District (TID or District) and has numerous canals around and within its boundaries (as shown on Figure 2-1 [of the Report]). North of the project site run TID’s Main Canal, bifurcating the northern portion is the Oakland Colony Canal and along the north edge of runs the southern portion the West Oakland Colony Canal. The Main Canal is one of TID’s primary canals and is approximately 7 feet deep and 35 feet wide at its top. The Oakland Colony Canal and West Oakland Colony Ditch are both smaller canals; the former is approximately 24 feet wide at its top and 5 feet deep while the latter is approximately 11 feet wide and 4 feet deep. Along the eastern boundary of the northern portion there is an out-of-use small ditch, called the Old 99 Ditch. It seldom has water in it and is used primarily for storm drain purposes. There are no other hydrological features within or around the project site.”² The nearest lake is Lake Success, approximately 25 miles southeast of the Project.

PROJECT SITE AND SURROUNDING LAND USE, ZONING AND OTHER COMMUNITY CHARACTERISTICS

As described in the Matheny Tract Wastewater System Project Feasibility Report (Feasibility Report, or Report), “Matheny Tract is a community primarily comprised of rural residential properties with single-family dwelling units. The area has paved roads which are owned and maintained by the County of Tulare and provide sufficient circulation throughout the community. The County of Tulare is the agency that determines property land use and zoning; however, the area is also considered in the City of Tulare’s General Plan.”³ Of the 302 parcels included in this project, all but 17 are zoned R-A-M (Rural Residential, Special Mobil home Zone). Five (5) parcels are zoned AE-20 (Exclusive Agriculture Zone – 20 Acre Minimum); five (5) parcels are zoned R-2 (Two Family Residential Zone); one (1) parcel is zoned C-1 (Neighborhood Commercial Zone); two (2) parcels are zoned C-2-M (General Commercial, Special Mobil home Zone); and three (3) parcels are zoned C-2 (General Commercial Zone).

As described in the Report; “The Matheny Tract was originally developed in the 1960s as two tracts, the first on the northeast corner of Addie Avenue and Road 96 (Pratt Street) and the second south of the West Oakland Colony Ditch and east of Road 96. The northern portion of the community was developed with predominantly 1-acre or near-1-acre parcels, while the southern portion was developed with mostly 0.5-acre parcels.

The community has potable water supplied through a community water system which is owned and operated by Pratt Mutual Water Company (PMWC); however, PMWC is in process of building a new water system which will include consolidation with the City of Tulare. Once the project is complete, PMWC will be dissolved.

² Ibid. 7.

³ Op. Cit. 10.

The community is unsewered and relies on individual on-site septic systems for wastewater disposal. The average lot size indicates adequate space for septic systems with a community water system; however, as noted above there are many lots with more than one dwelling and which may have more than one septic system onsite or have insufficient space to support efficient and effective septic effluent leaching. Additionally, many parcels have been divided, multiple times in some cases, to sizes as small as 6,000 square feet. Nearly 15% of the lots are now less than 12,500 square feet, which is the County of Tulare minimum lot size (see Tulare County Code 7-01-1350) for septic systems with a community water system.”⁴

The land uses surrounding the project sites are primarily agricultural. Adjacent properties to the north, west, and south of the project sites are farmland including field and row crops and nut trees. Industrial uses are located east of and adjacent to the Matheny North site and 0.7 miles east of the Matheny South site, and lie within the city limits of the City of Tulare.

“The Matheny Tract community is not currently sewerred, having on-site septic systems to provide wastewater treatment on each lot. The average lot size in the community is approximately 0.5 acres; however, many lots have been split in half or have more than one residence on a single property. Due to the splitting of lots or construction of multiple dwellings on one lot, the effective lot size of many properties is less than 12,500 square feet, the minimum lot size the County allows for on-site septic systems.”⁵ Lots smaller than the 12,500-square-feet are generally too small to support an efficient septic tank/leach line system. Further, when septic systems fail, lots this small tend to lack sufficient area for a replacement system meeting modern code requirements.

According to the 2010 Census data the population of the Matheny Tract is 1,212 people; however the American Community Survey (ACS) updates the housing estimates annually. The following table shows the data from the last three ACS 5-year estimates (prior population data is not available).

Based on the population estimates shown above [Table 2-1: Community Population of the Report] and the building moratorium, it is not anticipated that population will grow in the future. For the purposes of this project, it is assumed the population will remain at or near 1,200 individuals. The average household size was shown in the 2010 US Census as 3.79 persons.”⁶

PROJECT DESCRIPTION

The Project being evaluated in this EIR is Alternative 2 (the Preferred Alternative; and discussed in Chapter 5 Alternatives): As described in the Report; “Alternative No. 2, a gravity collection system and consolidation with the City of Tulare, is the Preferred Alternative. This alternative includes construction of a wastewater collection system within the Matheny Tract, at least one lift station located near Pratt Street, and a combination of 8-, 10- and 12-inch PVC sewer mains with manholes spaced at 350 feet.”⁷

⁴ Op. Cit. 2.

⁵ Op. Cit. 1.

⁶ Op. Cit. 11.

⁷ Op. Cit. 37.

“Alternative 2 consists of constructing a new gravity wastewater collection system, likely with at least one lift station, and connection to the existing City of Tulare wastewater collection system, New Sewer services and onsite plumbing would be required to connect each property to the new wastewater collection system and the existing septic systems would require abandonment.”⁸

As identified by the Report, the Project Components include:

- “Construction of
 - ◇ new gravity wastewater collection system throughout the Matheny Tract
 - ◇ one or more lift stations, including new points of electric service
 - ◇ sewer laterals from each property, with connection to each existing residence
- Connection to the City of Tulare’s existing 27-inch sewer main at Paige Avenue and “K” Street
 - ◇ Construction of 2,900 feet of 12-inch sewer main in Pratt Street [Road 96] from Matheny Tract to Paige Avenue [Avenue 216].
- In-place abandonment of existing septic systems and leach fields
- Conduct a Proposition 218 Election
- New utility account setup for all residents with the City of Tulare
- Payment of capacity fees to the City for each property
- Modifications to the City’s existing Sewer System Management Plan (SSMP)
- Update the City’s Report of Waste Discharge (RWD)

The City of Tulare has indicated the existing 27-inch sewer trunk main in Avenue 216/Paige Avenue at Road 96/Pratt Street is at 70 percent capacity and would be able to accommodate an additional 0.36 MGD. As discussed in Section 5.1, when utilizing the City’s Peaking Factor of 2.1, the capacity needed for the project is 0.27 MGD; therefore the new improvements could make use of the existing 27- inch sewer main

A preliminary layout of the Matheny Tract collection system is shown in Appendix I. The layout includes 8-inch PVC sewer mains within the community and 8- to 12-inch sewer mains in Pratt Street, flowing north to the intersection of Avenue 216/Paige Avenue and Road 96/Pratt Street. Four-inch sewer service house branches would be provided to each residential property and six-inch sewer services would be provided to the churches and commercial establishments.”⁹

⁸ Op. Cit. 25.

⁹ Op. Cit. 26.

Typical Pipeline Construction Equipment

Construction-related activities of the Project are anticipated to take place 8 hours a day for a total of 120 working days (approximately six months depending upon weather, holidays, and weekend work). It is anticipated that construction would use, but not limited to, the following equipment:

- 1 backhoe
- 1 excavator (for trench excavation and compaction with sheepsfoot roller)
- 1 front loader
- 1 crane
- 1 grader
- 1 dump truck
- 1 paving machine
- 1 steel roller compactor
- 1 skip loader
- 1 street sweeper
- 1 semi-truck tractor with transfer trailers for pavement deliveries
- 1 concrete truck
- 1 water truck
- 1 tractor trailer for pipe deliveries
- 1 concrete cutter
- 1 work truck

Typical Pipeline Construction Traffic

It is anticipated that the Project construction-related activities would require approximately eight construction workers, depending on daily activities, resulting in an average of approximately 16 to 32 construction vehicle trips per day.

Traffic Control

Location of the pipeline will likely require construction activities in the center of the road with equipment located on one side of the trench and materials and trench spoils on the other side of the trench. This activity will require continual traffic control around trenching or other construction-related activities. It is anticipated that two-way traffic will be maintained throughout most of the construction period. It will be necessary to utilize one-way traffic control and short-duration traffic stops at times for some construction-related activities. The contractor will be allowed to open-cut for pipeline segments where the contractor can excavate, install pipe, backfill, and resurface in one day. No open trenches will be allowed overnight without being covered with steel plates.

Material Staging

Construction-related activities of the Project would require temporary staging and storage areas for the materials and equipment. Undeveloped, fallow, or vacant properties (that have been disturbed as a result of ongoing agricultural practices or abandoned) near or within Matheny Tract are the most probable properties for overnight equipment staging.

Construction Water Usage

Based upon information contained in the Report, the Project would require approximately thirty (30) acre-feet of water for dust control and trench compaction during the construction period.¹⁰

Construction Waste Disposal

Removal of asphalt and concrete would generate construction waste that will be disposed of in accordance with applicable laws. The proposed pipeline construction is not anticipated to generate large amounts of construction waste since the construction-related activities are limited to trenching.

San Joaquin Valley Unified Air Pollution Control District (Air District) Permits and Approvals Needed

The Air District has regulations in place to minimize the release of criteria pollutant emissions, specifically oxides of nitrogen (NO_x) and particulate matter (PM₁₀ and PM_{2.5}), during construction-related activities. Although permits are not issued for these regulations, these regulations do require submittal and approval of the applications, if applicable, identified below.

- Regulation VIII (Fugitive PM₁₀ Prohibition) requires any person or agency to control fugitive dust emissions from dust-generating sources and activities including, but not limited to, construction sites, earthmoving activities, bulk material handling and transport, and construction staging areas. A Dust Control Plan (DCP) and daily recordkeeping is required for non-residential projects five (5) acres or larger and residential projects ten (10) acres or larger, or any project that involves handling more than 2,500 cubic yards of material per day on at least three (3) days of the project. If a project warrants a DCP, the DCP must be submitted to the Air District at least 30 days prior to the start of any project-related construction activities.¹¹ As this Project will likely not disturb 10 or more acres, a DCP may not be required for this Project; however, the Air District will make the final determination regarding the need for a DCP.
- District Rule 9510 (Indirect Source Review) requires projects subject to the rule to submit an Air Impact Assessment (AIA) application to the Air District no later than concurrent with the submittal of the land use agency application. 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.¹² The rule also exempts any development project on a facility whose primary functions are subject to Air District permitting requirements.¹³ The Project includes the installation of infrastructure to provide existing residences without municipal sewage facilities with connection to an existing

¹⁰ Estimate based on Matheny Tract construction being approximately 60% of Plainview for a similar wastewater system project.

¹¹ Air District Fugitive Dust Control brochure, available on the Air District website at http://www.valleyair.org/brochures/docs/Dust_Control_Brochure.pdf. A complete copy of Regulation VIII requirements (Rules 8011, 8021, 8031, 8041, 8051, 8061, 8071, and 8081) can be accessed on the Air District's website at <http://www.valleyair.org/rules/1ruleslist.htm>.

¹² Air District Rule 9510, Section 3.13. A complete copy of the rule can be accessed on the Air District's website at <http://www.valleyair.org/rules/curnrules/r9510.pdf>.

¹³ Ibid. Section 4.4.3

wastewater treatment plant. The Project's criteria pollutant emissions will be below the Air District's Rule 9510 thresholds. Lastly, the Project does not increase capacity or activity and upon completion will be tied into a facility subject to Air District permitting requirements; as such, the Project is not likely subject to Rule 9510; however, the Air District will make the final determination regarding the applicability of Rule 9510.

PROJECT OBJECTIVES AND BENEFITS

The following seven (7) objectives are desirable if the Project is constructed:

Objective 1: Connection to the City of Tulare wastewater treatment facility

Benefit: Construct a system capable of accessing the City of Tulare wastewater treatment facility which would provide adequate on-site wastewater removal and treatment services for Matheny; (provide an average daily flow of 110,000 million gallon per day (mgd) to meet the wastewater disposal requirements of the community.).

Objective 2: Abandonment of on-site septic tank/leach line systems

Benefit: Eventual abandonment of the existing individual residential on-site septic tank/leach line systems located within Matheny Tract.

Objective 3: Beneficial Environmental Impacts

Benefit: Provide a system that has the least potential to result in adverse environmental impacts and would provide an environmental benefit by eliminating wastewater discharge from on-site system tanks into the ground.

Objective 4: Avert a stand-alone wastewater treatment facility

Benefit: Avoid construction of a stand-alone wastewater treatment facility (including percolation ponds) in Matheny Tract. This would be the most expensive Alternative to the Project and would likely result in an economic and unaffordable hardship to Matheny Tract's residents.

Objective 5: Protect groundwater supply

Benefit: Treat collected wastewater so as to remove constituents, such as BOD, suspended solids, nitrogen, and waterborne bacteria and viruses, to a greater extent, thereby improving subsurface water quality in the receiving groundwater basin relative to current environmental conditions.

Objective 6: Cost-Efficiency

Benefit: Provide the most cost-effective, safe, and reliable means to collect and treat wastewater to Title 22 standards.

Objective 7: Affordable and Effective

Benefit: Implement an as affordable fees schedule to efficiently and effectively maintain and operate the wastewater system to enhance the quality of life for Matheny Tract residents.

BASELINE CONDITIONS INFORMATION PERTINENT TO THE PROPOSED PROJECT AND ITS IMPLEMENTATION¹⁴

“Existing Facilities

Existing System Description

The Matheny Tract residents use septic systems located on each lot to dispose of their effluent discharge. The septic systems mainly consist of a concrete tank providing rudimentary wastewater treatment, which then discharges effluent to a leach field or leach pit. The septic tanks are typically located behind the primary or first residence constructed on the property; leach field locations vary and are not necessarily part of the public record.”¹⁵

“Existing Flow Characteristics

Lot Sizes

As discussed in Section 2 [of the Report], the lot sizes vary broadly from approximately 6,000 square feet (sf) to 4.7 acres (ac). The smaller lots typically have one dwelling, while the larger lots can have as many as three dwellings (often a mixture of fixed houses and mobile homes). Based on visual inspection there are approximately 320 dwellings within the community on 290 residential lots; approximately one-third of the dwellings are mobile homes. The following table [Table 2-1] identifies how many fixed and mobile homes, churches, and commercial establishments are in the area.”¹⁶

¹⁴ Information excerpted from the Final Project Feasibility Report Matheny Tract Wastewater System Tulare County, California. Pages 13-16. Prepared by Provost & Pritchard Consulting Group February 2016.

¹⁵ Ibid. 11.

¹⁶ Op. Cit.

Table 2-1 [Table 3-1 of the Report] Dwellings Summary	
Type of Use	Estimated Number of Users
Dwellings	320
Church	3
Commercial (Small Store)	3

“Waste Generation Estimates

The flowrates for the wastewater loading on the new system were estimated by using the typical wastewater flow rates for nearby communities and applying those numbers to the Matheny Tract community (see WDRs for Tipton, Tulare and Woodville in Appendix G). The following table [Table 2-2] shows the unit flowrates used.

Table 2-2 [Table 3-2 of the Report] Waste Generation Estimate	
Type of Use	Unit Flow Rate
Residential	72 gpcd
Church	8 gal/attendee
Small Store	10 gal/employee

As discussed above, there are approximately 1,212 people in the Matheny Tract. By using 50 attendees at church services per church site, once per week, and 4 employees (average) at the local commercial establishments, the community wastewater estimate is 87,500 gallons per day (gpd) or 72 gallons per capita per day (gpcd). This value is well below the threshold of 120 gpcd that would require a Sewer System Evaluation Survey (SSES); an SSES will not be prepared for this project.

Wastewater generation can also be estimated by taking 90 percent of the winter daily water use. Based on water use records, 90 percent of the average winter month (November through February) water use is 107,320 gpd or 89 gpcd.

Based on these methods, the wastewater flow from Matheny Tract is conservatively estimated to be approximately 110,000 gpd; however the plant should be designed to accommodate 130,000 gpd to account for high flows in the summer months.”¹⁷

“Wastewater Characteristics

The flow rates from the City of Tulare, Woodville Public Utilities District (PUD) and Tipton Community Service District (CSD) were reviewed (see Appendix G [of the Report]). According to each community’s Waste Discharge Requirements, the City of Tulare has a permitted capacity of 6 million gallons per day (MGD), Woodville PUD has a permitted capacity of 0.33 MGD and Tipton CSD has a permitted capacity of 0.4 MGD. The communities

¹⁷ Op. Cit. 13-14.

all operate below their permitted capacity, with an average waste generation rate of approximately 72 gpcd.

The raw wastewater characteristics from the Matheny Tract to be used for the purposes of this report and design calculations of the selected alternative are shown in the following table [Table 2-3]. The reference source identified three levels of influent, low, medium and high; the medium characteristics have been selected.”¹⁸

Table 2-3 [Table 3-3 of the Report] Influent Characteristics	
Constituent	Design Values
Residential	72 gpcd
Church	8 gal/attendee
Small Store	10 gal/employee

“Seasonal Variations

The community has seasonal variations due to climatic factors and user impacts. The annual average water use per person in the Matheny Tract is 175 gpcd. During the summer months the average water use is 252 gpcd, while during the winter months the average is 98 gpcd.

During the summer months (May through August), the climate is hot and dry, necessitating more outdoor water usage for irrigation and recreation. Wastewater generation is exacerbated by summer break from school for children, increasing the daily average loading. The community is not home to a school; therefore, during non-summer months, the wastewater generation by school-aged children is not realized in the community for a large portion of each weekday. For design purposes, the dry-weather conditions are used to account for the highest wastewater generation.”¹⁹

“Water Quality

The community is solely reliant on groundwater supply. The drinking water standards specify allowable levels for constituents of concern in the area (Arsenic and Nitrate). The Maximum Contaminant Levels (MCLs) for Arsenic and Nitrate are 10 µg/L and 45 mg/L, respectively. In addition, the water quality characteristics must meet the Federal and State drinking water standards for other regulated constituents.”²⁰

¹⁸ Op. Cit. 14.

¹⁹ Op. Cit. 15.

²⁰ Op. Cit.

Past Water System Violations

PMWC has received several Notices of Violation from the California Department of Public Health (CDPH). In 1999 and 2000, Well 2 was cited several times for exceeding the MCL for nitrate, resulting in the well's condemnation in 2002 by DHS. With the development of the lower 10 µg/L MCL for Arsenic in 2006, the remaining two wells of the water system are now in exceedance.

The nitrate levels in Well 2 were sampled in 1999 and 2000 with reported levels 60 mg/L in both instances. The presence of Nitrate at levels significantly in excess of the MCL in Well 2 was attributed to the shallowness of the well; the shallow groundwater has been affected by both septic systems and agricultural uses in the surrounding area. This well is no longer in use by Pratt MWC for this reason. From 2002 to 2010, Pratt MWC conducted 8 and 12 sampling events on Wells 1 and 3, respectively. The average Arsenic concentration was 15.0 µg/L at Well 1 and 11.9 µg/L at Well 3; substantially above the 10 µg/L MCL.”²¹

Water Resources

Water Supply

The Matheny Tract's water supply is provided by Pratt Mutual Water Company [PVMC]. PVMC is classified as a community water system and serves a population of 1,212 people. PMWC provides water through two wells on a closed-loop system; the system provides both domestic and fire suppression supplies. The water system is served solely by groundwater.

Ground Water

The western half of Tulare County is comprised of flat valley lands of the southern San Joaquin Valley, while rolling foothills associated with the Sierra Nevada Mountains characterize its eastern half. Topography consists of flat valley land, gently rolling foothills, and canyons of the Sierra Nevada Mountains. Water bearing units within Tulare County include younger and older alluvium, flood-basin deposits, lacustrine, marsh and continental deposits. The older alluvium is moderately to highly permeable and is the major aquifer for Tulare County. Regional groundwater flow is generally southwestward; however, pumping can affect local groundwater flow direction.

Tulare County is located within the San Joaquin Valley Groundwater Basin. The California Department of Water Resources (DWR) Bulletin 118 identifies several groundwater subbasins in Tulare County, including the Kings Subbasin, Kaweah Subbasin and Tule Subbasin. The project is located within the Kaweah Subbasin.

The Kaweah Subbasin underlies central Tulare County west of the Sierra foothills. The major water-bearing units are made up of unconsolidated Pliocene, Pleistocene, and Holocene-age

²¹ Op. Cit. 15-16.

sediments. Continental lacustrine and marsh deposits are found in the western portion of the subbasin, closer to the Tulare Lake bed. Clay beds associated with lacustrine deposits form aquitards that influence the vertical and possibly horizontal movement of local groundwater. The most well-known clay bed is the Corcoran clay, which underlies the western half of the Kaweah Subbasin from 200 to 500 feet below ground surface (bgs), confining portions of the aquifer. The county's population centers of Visalia and Tulare are located within the Kaweah Subbasin. Approximately 44% of the sampled wells were located in the Kaweah Subbasin.

In the Matheny Tract the wells are completed to total depths of 325-feet (Well 1) and 400-feet (Well 3) below ground surface (bgs), possibly beneath the Corcoran Clay layer, though the east edge of the clay is near the Highway [State Route] 99 alignment and it does not have much if any effect on the hydrogeology at this location. Groundwater recharge in the county occurs through river and stream seepage, percolation of irrigation water, canal seepage, and intentional recharge. Land subsidence of up to 16 feet has occurred due to deep compaction of fine-grained units. This subsidence is thought to be due to groundwater withdrawal. The DWR-published ground water contours in the project area are included in Appendix D [in the Report].

Surface Water

The closest surface water ways are the TID canals discussed in Section 2.1.2.1. The Main Canal is approximately 0.5 miles north of the project area and the other referenced canals run through or directly adjacent to the project area.

Hazardous Constituents

A review of Identified Hazardous Waste Sites on the EnviroStor Database determined that there are no identified hazardous sites within the Matheny Tract or nearby vicinity. A review of the Geotracker Database (Appendix E [in the Report]), which is maintained by the California Environmental Protection Agency – State Water Resource Control Board (SWRCB), identifies C&E Feed & Auto Parts (T0610700135), at the northeast corner of Pratt Street and Addie Avenue, as a site with a cleanup status of “Completed- Case Closed” and Curti & Sons, Inc. (T0610700411) at 3235 Avenue 199, as a site with a cleanup status of “Open – Remediation.” The SWRCB defines “Open – Remediation” as an on-going corrective action at a site where the actual construction or implementation activities to accomplish cleanup at the site are in process.

Further discussion of groundwater quality can be found in Section 3.3 [in the Report].”²²

²² Op. Cit. 9-10.

PERMITS REQUIRED FOR IMPLEMENTATION

The Preferred/Proposed Project may require, but not be limited to, the following local and state, regulatory requirements:

“The project will require permitting during the planning stage as well as construction permits. Table 6-4 [of the Report; **Table 2-4** of this document] lists the permits that will be required and what phase of the project they will be required during; this list may not be exhaustive depending on the timing of construction and permit requirements at that time.”²³ In addition to the permits listed in Table 2-4, the San Joaquin Valley Air Pollution Control District (Air District) will require compliance with Regulation VIII (Fugitive PM₁₀ Prohibitions); a series of eight (8) rules adopted by the Air District that requires action to prevent, reduce or mitigate fugitive dust emissions from construction-related or other earth-moving/earth-disturbing activities. Regulation VIII may also require a District-approved Dust Control Plan prior to initiation of construction-related activities. A Dust Control Plan identifies the fugitive dust sources at the construction site and describes all of the dust control measures to be implemented before, during, and after any dust generating activity for the duration of the project.

Table 2-4: Selected Alternative Required Permitting		
Permit Name	Approving Agency	Project Phase
CEQA	County of Tulare	Planning
Indirect Source Review	San Joaquin Valley Air Pollution Control District	Planning
Storm Water Pollution Prevention Plan	State Water Regional Control Board	Design
Common Use Agreement	Tulare Irrigation District	Design
Report of Waste Discharge	Regional Water Quality Control Board	Design
Encroachment Permit	County of Tulare	Construction

Other actions/key issues needed to implement the Preferred/Proposed Project would include:

- “County of Tulare Acceptance
 - ◇ The County will have to approve the selection of this alternative prior to moving forward with discussions with the City
- The Matheny Tract Acceptance
 - ◇ Further community outreach and discussion must be held to ensure the community residents support the solution
 - ◇ A vote may be required to obtain necessary majority approval to substantiate implementing a County ordinance that requires connection to the new wastewater collection system

²³ Op. Cit. 40.

- City of Tulare Acceptance
 - ◇ A letter of commitment backed by a City Council Resolution will be required prior to receiving funding
 - ◇ An agreement between the City and County will be required, detailing all of the terms and conditions of sewer service provision
- Obtain Construction Funding
 - ◇ The selected alternative has a capital improvement cost of \$12.05M including Contingency, Engineering and Construction Services (Inspection, Staking, Construction Engineer, etc).
 - ◇ 100% grant, up to \$4M is allowable for projects benefitting an SDAC with a wastewater rate between 1.5% and 2% of the community's MHI. The SWRCB may increase grant percentage to 100% with special approval.
 - ◇ Entire project cost could be awarded as grant with special approval from the funding agency
 - ◇ A loan could be required on the remaining project costs. Terms would include repayment over 30 years at an interest rate of half the general obligation rate. If loan repayment is required it would necessitate creation of a Special Assessment District for the Matheny Tract residences and businesses.”²⁴

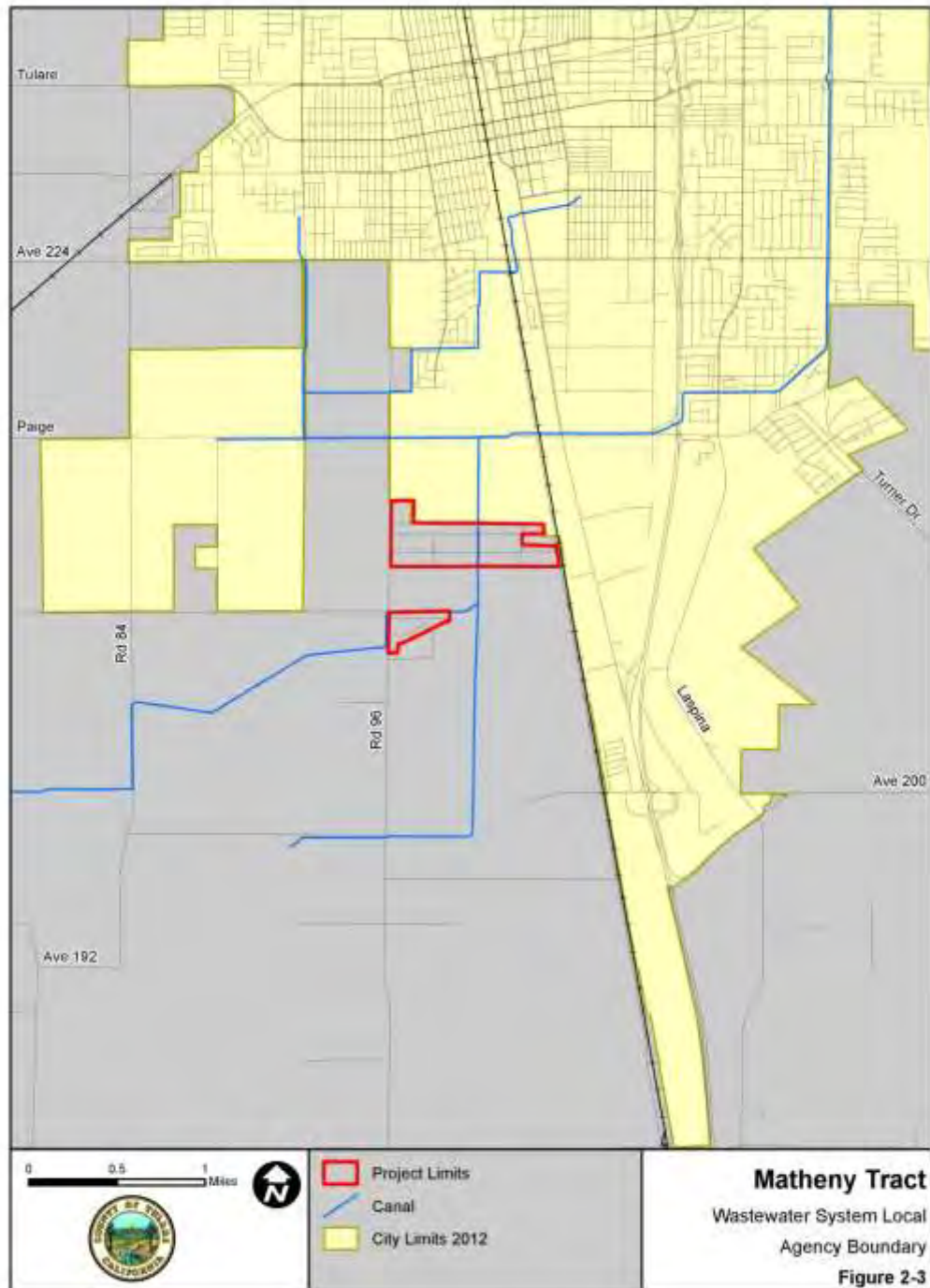
Figures 2-1 Wastewater System Vicinity Map, 2-2 Wastewater System Project Boundary, and 2-3 Wastewater Agency Local Agency Boundary were excerpted from the Project Feasibility Report Matheny Tract Wastewater System contained in Appendix “D” of this DEIR.

²⁴ Op. Cit. 40-41.



Draft Environmental Impact Report
Matheny Tract Wastewater System Project Feasibility Report





Chapter 3.1

Aesthetics

SUMMARY OF FINDINGS

Based on the impact analysis below, potential impacts to aesthetics as a result of the Preferred/Proposed Project are determined to be ***Less Than Significant***. The impact analyses and determinations in this Chapter are based upon observations of the Preferred/Proposed Project site and the surrounding area. This document has been prepared using the Preferred Alternative (Alternative 2, Tulare City option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. 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 Preferred/ Proposed 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 Environmental Setting section describes scenic and aesthetic resources in the region, with special emphasis on the Preferred/ 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 Preferred/ Proposed Project is also provided and includes the identification of feasible mitigation to avoid or lessen the impacts to less than significant levels, if necessary.

Thresholds of Significance:

- 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 throughout 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, though 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...¹

Existing Visual Conditions

The Preferred/Proposed Project is located within the unincorporated portion of central Tulare County in California's Central Valley, predominantly surrounded by historically disturbed agricultural land. The unincorporated community of Matheny Tract is a Census Designated Place generally situated south of Avenue 216 (Paige Avenue) and east of Road 96 (Pratt Street). It comprises approximately 28 acres of primarily single family dwellings, although there are also with three commercial establishments and three churches. The 2010 U.S. Census population of Matheny Tract is estimated to be approximately 1212².

Matheny Tract consists mainly of existing single-family homes fronting on paved County road rights-of-way with dirt shoulders (although there are scattered segments of roadways with curb and gutter). Similarly, surrounding areas are served by semi-rural paved, two-lane roads with rough-graded, unpaved, gravel shoulders. All proposed pipelines would be installed within existing County rights-of-way. Occasionally, pipelines will require trenching across paved roadways to connect to other components of the pipeline infrastructure, as is the case with the inter-tie with existing Tulare wastewater treatment plant main pipeline at the intersection of Avenue 216 (Paige Avenue) and Road 96 (Pratt Street). Additionally, at least one (1) lift station or other appurtenant structures may be constructed above ground. Land uses in the vicinity are primarily related to agricultural production and associated uses, and two rural residences north of Matheny Tract along Road 96 (Pratt Street).

¹ Tulare County 2030 General Plan: Recirculated Draft EIR (RDEIR). Page 3.1-11.

² 2010 United States Census.

Figures 3.1-1 thru 3.1-5³ show Matheny Tract's rural location surrounded by agriculturally productive lands, typical streetscapes (including typical, modest residences), the Oakland Colony canal as it bisects the Matheny Tract North area and Tulare's residential development to the north with industrial development to the northeast;

Figure 3.1-1

Aerial view showing both North Matheny Tract; agriculturally productive lands north, south, and west while South Matheny Tract South is completely surrounded by agriculturally productive land. City of Tulare industrial areas east and northeast, residential uses at top of view.



³ Pictures used from Google Earth, accessed on January 24, 2017.

Figure 3.1-2

South Matheny Tract
Typical road and residences, looking east on W. Matheny Ave.



Figure 3.1-3

Looking north at S. Pratt Street and W. Addie Avenue
Local store and gas station on east side of Pratt Street



Figure 3.1-4

Typical residences in North Matheny Tract;
looking east at Beacon Ave and So. Luton St.
(note intermittent curbs, gutters, and unpaved side walk areas)



Figure 3.1-5

Oakland Colony Canal along Canal Street;
looking south of E. Wade Ave.



REGULATORY SETTING

Federal Agencies & Regulations – None that apply to the Project

State Agencies & Regulations

Title 24 Outdoor Lighting Standards

Title 24 Outdoor Lighting Standards were adopted by the State of California Energy Commission (CEC) (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 CEC defines rural areas as Lighting Zone 2. Existing outdoor lighting systems are not required to meet these lighting allowances. As Project operations will occur between dawn and dusk, the Project does not require lighting and the requirements of Title 24 do not apply.

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.⁴

Local Policies & 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.”⁵

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

⁴ Tulare County 2030 General Plan, Goals and Policies Report Part 1, Page 7-5.

⁵ Tulare County General Plan Update Goals and Policies Report, Page. A-2.

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 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.”⁶

Tulare County General Plan Policies

The Tulare County General Plan has a number of policies that apply to projects within the County of Tulare. Listed below are the policies applicable to the Project. Figure 3.1-7 shows Scenic Highways and County Scenic Routes.

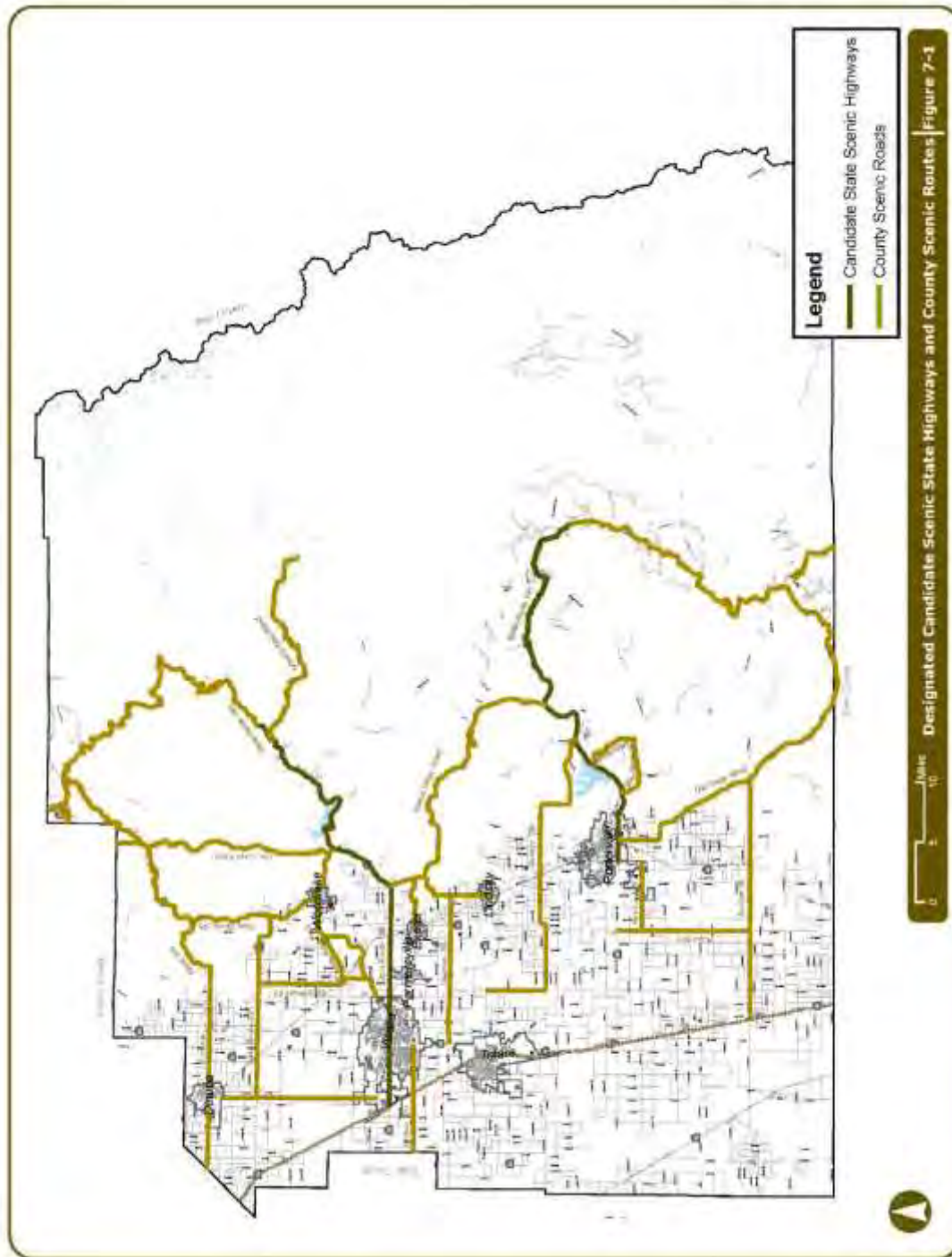
SL-1.2 Working Landscapes - The County shall require that new non-agricultural structures and infrastructure located in or adjacent to croplands, orchards, vineyards, and open rangelands be sited so as to not obstruct important viewsheds and to be designed to reflect unique relationships with the landscape 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.

As shown in **Figure 3.1-6** Scenic Highways and County Scenic Routes the project is not adjacent to any scenic routes.

⁶ Tulare County 2030 General Plan, Goals and Policies Report. Page 7-2

Figure 3.1-6
Scenic Highways and County Scenic Routes



IMPACT EVALUATION

Will the proposed Project:

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

Project Impact Analysis: *No Impact*

There are no scenic vistas within the vicinity of the Project area. The construction-related activities and operation of underground pipelines would not result in a potential impact to the visual character of the area. At least one lift station (or other appurtenant structures) may be constructed above ground. However, these structures are visually consistent with the existing agricultural infrastructure in the area and would not result in a significant impact on scenic vistas; therefore, *No Project-specific Impacts* will occur.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County.

There are no scenic vistas on or near the Project area; therefore, there would be *No Cumulative Impacts* related to this Checklist Item.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

As noted earlier, there are *No Project-specific or Cumulative impacts* related to this Checklist Item.

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*

Portions of SRs 190, 198, and 180 are eligible for state scenic highway designation. However, they are not designated as such at this time. Additionally, the Tulare County 2030 General Plan lists a series of Scenic County Routes, several of which are located in agricultural areas. Road 96, the roadway where the pipeline connection to Tulare's wastewater collection pipeline would occur, is not designated as a Scenic County Route.

During construction-related activities, the visual character of the Project would be impacted as a result of trenching and other construction-related activities. However, these impacts would be short-term, temporary, and are typical of these types of construction projects. The

long-term operation of the underground pipelines would not present the potential to impact the visual character of the Road 96 view-shed. While at least lift station and other appurtenant structures may be constructed above ground, these structures are visually consistent with the existing agricultural infrastructure along Road 96 and would not result in a significant impact on scenic resources such as trees, rock outcroppings, and historic buildings within a state scenic highway. The Project would have a ***Less Than Significant Project-specific Impact***.

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

The geographic area of this cumulative analysis is Tulare County.

The Project's related impacts would only be short-term and temporary during construction-related activities. Also, operation of the Project would not result in long-term or permanent impacts to the visual character of the area. Therefore, there would be a ***Less Than Significant Impact***.

Mitigation Measure(s): ***None required***

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

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

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

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

During construction-related activities, the visual character of the Project area would be impacted as a result of trenching and other construction-related activities. However, these impacts would be short-term and temporary and are typical for these types of construction projects. The long-term operation of the underground pipelines would not impact the visual character of the site or area. While up more than one lift stations and other appurtenant structures may be constructed above ground, these structures are visually consistent with the existing agricultural infrastructure in the area and would not substantially degrade the existing visual character or quality of the site and its surroundings. Therefore, there would be ***Less Than Significant Project-specific Impact***.

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

The geographic area of this cumulative analysis is Tulare County.

Project-related impacts would only be temporary during short-term and temporary construction-related activities. Also, operation of the Project would not result in long-term or

permanent impacts to the visual character of the area. Therefore, there would be a ***Less Than Significant Impact***.

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

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

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

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

Construction of the Project would occur on weekdays during daylight hours, and would not require any lighting. Additionally, there would be no lighting sources associated with the operation of the Project. Therefore, the Project would have ***No Project-specific Impacts*** related to this Checklist Item.

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

The geographic area of this cumulative analysis is Tulare County.

There are no lighting sources associated with the Project. As such, there would be ***No Cumulative Impacts*** related to this Checklist Item.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, there would be ***No Project-specific or Cumulative Impacts*** related to this Checklist Item.

REFERENCES

State of California, Governor's Office of Planning and Research, "Thresholds of Significance: Criteria for Defining Environmental Significance," *CEQA Technical Advice Series* <http://ceres.ca.gov/ceqa/more/tas/Threshold.html>

California Department of Transportation. California Scenic Highways Program. Scenic Highway Routes. Website was accessed on January 24, 2017 at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Page last updated September 7, 2011.

Caltrans, California Scenic Highway Program: "Frequently Asked Questions," which was accessed at: http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm

CEQA Guidelines, Section 15382

Google Earth, accessed on January 24, 2017.

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Title 24, 2008 Nonresidential Compliance Manual, page 6-20; which was accessed at: http://www.energy.ca.gov/title24/2008standards/nonresidential_manual.html

Provost & Pritchard Consulting Group, *Project Feasibility Report, Matheny Tract Wastewater System, Tulare County, California 2016*.

Chapter 3.2

Agricultural Land and Forestry Resources

SUMMARY OF FINDINGS

The Preferred/Proposed Project would result in *No Impacts* to agricultural land and forestry resources. The impact analyses and determinations in this chapter are based upon information obtained from the References listed at the end of this chapter. As noted earlier, this document has been prepared using the Preferred Alternative as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. A detailed review of potential impacts is provided in the analysis that follows.

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 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 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 Update and EIR and/or the Tulare County General Plan Background Report 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.

California Department of Conservation, Division of Land Resource Protection

“The California Department of Conservation, Division of Land Resource Protection, maintains a database called 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 years¹. 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.”² Following are common definitions used by the DOC:

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.”*³

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 moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.”*⁴

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.”*⁵

¹ California Department of Conservation, DLRP, Farmland Mapping and Monitoring Program, downloaded from, <http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx>

² Tulare County General Plan 2030 Update and Final EIR (SCH # 2006041162), August 28, 2012 , page 3.10-4County Board of Supervisors Resolution No. 2012-0699. <http://generalplan.co.tulare.ca.us/>

³ Ibid.

⁴ Op. Cit.

⁵ Op. Cit.

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.”*⁶

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.”*⁷

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.”*⁸

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.”*⁹

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.”*¹⁰

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

⁶ Op. Cit.

⁷ Op. Cit.

⁸ Op. Cit. 3.10-4 to 3.10-5.

⁹ Op. Cit. 3.10-5.

¹⁰ Op. Cit.

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.¹¹

Agricultural Productivity

The Preferred/Proposed Project site is located in the San Joaquin Valley portion of Tulare County. As indicated in the Tulare County Farm Bureau's "Facts about Agriculture;" Tulare County leads the nation in dairy production. Milk is the first agricultural commodity worth \$1.7 billion in the 2015 report. Tulare County also ranks again as the #1 largest agricultural producing county in the entire nation. The title of #1 was retained by Tulare County in 2015 in light of our neighbor to the north, Fresno County being severely impacted in their acreage values by the water restrictions and drought conditions the past three years, causing their gross receipts to be lower than Tulare County.

Agriculture is the largest private employer in the county with farm employment accounting for nearly a quarter of all jobs. Processing, manufacturing, and service to the agriculture industry provides many other related jobs. Six of the top fifteen employers in the county are food handling or processing companies, which includes fruit packing houses and dairy processing plants..¹²

The *2016 Tulare County Annual Crop and Livestock Report* stated "Tulare County's total gross production value for 2015 as \$6,084,672,400. This represents an increase of \$1,103,694,600 or 13.7% above 2014's values of \$8,084,672,400. Milk continues to be the leading agricultural commodity in Tulare County; with a total gross value of \$1,718,001,000, a decrease of \$822,231,000 or 32.4%. Milk produce represents 24.6% of the total crop and livestock value for 2015. Total milk production in Tulare County remained relatively stable. Livestock and Poultry's gross value of \$1,022,620,000 represents a decrease of 4.89% above 2014, mostly due to lower per unit value for cattle and less poultry production."¹³ "Tulare County's agricultural strength is based on diversity of the crops produced. The 2015 report covers more than 120 different commodities, 45 of which had a gross value in excess of \$1,000,000. Although individual

¹¹ Op. Cit. 3.11-5.

¹² Tulare County Farm Bureau Statistics 2016.

¹³ 2015 Tulare County Annual Crop and Livestock Report, August 2016. Cover letter from Marilyn Kinoshita, Agricultural Commissioner.

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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.”¹⁴

The most recent statewide California Farmland Conversion Report (CFCR) from the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) assesses statewide farmlands from the period 2008-2010. However, Tulare County specific data from the period 2012-2014 indicates that agricultural lands in Tulare County in 2014 included 859,172 acres of important farmland (designated as FMMP Prime, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance) and 439,962 acres of grazing land, for a total of 1,299,134 acres of agricultural land.¹⁵

Farmlands of Statewide Importance are defined as “lands similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.”¹⁶

The adjacent properties located outside of the Matheny Tract UGB are generally designated Farmland of Statewide Importance¹⁷. Properties within the Community of Matheny Tract are designated as Urban and Built-Up Land, which is defined as 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 parcel¹⁸.

As presented in **Table 3.2-1**, the Tulare County Subvention Report (November 21, 2012) notes that 1,096,299 acres of farmland with Tulare County 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 of January 1, 2012, there were 1,096,299 acres of farmland under Williamson Act or Farmland Security Zone contracts in Tulare County divided by the following categories: 571,904 acres of Williamson Act prime, 513,243 acres nonprime, and 11,152 acres of Farmland Security Zone lands (The acreage totals also include 6,040 acres of Williamson Act prime contract land in nonrenewal and 7,513 acres of Williamson Act of nonprime contract land in nonrenewal.)¹⁹

¹⁴ Ibid. <http://agcomm.co.tulare.ca.us/default/index.cfm/standards-and-quarantine/crop-reports1/crop-reports-2011-2020/2015-tulare-county-annual-crop-and-livestock-report-pdf/>

¹⁵ California Department of Conservation, Division of Land Resource Protection. Department of Conservation, Farmland Mapping and Monitoring Program, *Table 2012-2014. Table A-44, Part I*. <http://www.conservation.ca.gov/dlrp/fmmp/Pages/Tulare.aspx>. Accessed October 20, 2015. *The California Farmland Conversion Report 2008-2010 can be found at* <http://www.conservation.ca.gov/dlrp/fmmp/Documents/fmmp/pubs/2008-2010/fcr/FCR%200810%20complete.pdf>.

¹⁶ Ibid.

¹⁷ California Department of Conservation, Farmland Mapping and Monitoring Program, Tulare South County Map, ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/tul12_so.pdf

¹⁸ Ibid.

¹⁹ Tulare County Resource Management Agency. Tulare County Subvention Report for Fiscal Year 2012-2013 (submitted to Department of Conservation, November 2012)

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Table 3.2-1²⁰: 2012 Tulare County Lands under Williamson Act or Farmland Security Zone Contracts	
Acres	Category
571,904	*Total prime = Prime active + NR Prime
513,243	*Total Nonprime = Nonprime active + NR Prime
11,152	Farmland Security Zone
1,096,299	TOTAL ACRES in Williamson Act and Farmland Security Zone contracts
<i>*Prime total includes 6039.75 acres in nonrenewal; Nonprime total includes 7512.56 acres in nonrenewal</i>	

Important Farmland Trends

Using data collected by the FMMP, farmland acreage has been consistently decreasing for each two-year period since 1998²¹. In the 2010 FMMP analysis, Tulare County lost 17,502 acres of important farmland, and 17,748 acres of total farmland between 2008 and 2010; 13,815 acres of important farmland, and 14,216 acres of total farmland between 2010 and 2012; and 17,441 acres of important farmland, and 17,678 acres of total farmland between 2012 and 2014.²²

“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).”²³

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.”²⁴

As the proposed Project is located on the Valley floor, there is no timberland or forest in the Project vicinity.

²⁰ Ibid.

²¹ California Department of Conservation, Division of Land Resource Protection, “Williamson Act Status Report (2010)” downloaded from “Williamson Act Reports and Statistics”, at: http://www.conservation.ca.gov/dlrp/lca/stats_reports/Pages/index.aspx

²² Tulare County Land Use Conversion Tables 2008-2010, 2010-2012, and 2012-2014. Table A-44, Part III. <http://www.conservation.ca.gov/dlrp/fmmp/Pages/Tulare.aspx>. Accessed October 20, 2015.

²³ Tulare County General Plan 2030 Update Recirculated Draft EIR (SCH # 2006041162). Page 3.10-6. And, Tulare County General Plan 2030 Update Background Report. Page 4-25.

²⁴ Ibid. 4-20.

REGULATORY SETTING

Federal Agencies & Regulations

Federal Farmland Protection Act (FFPA)

“The FFPA 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... Projects are subject to FFPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a Federal agency or with assistance from a Federal agency.”²⁵

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.””²⁶

State Agencies & Regulations

California Environmental Quality Act and Guidelines Implementing the Act

The *CEQA Guidelines* Section 15382 defines “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 including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.” CEQA Guidelines Appendix G Environmental Checklist Form identifies subpart “II. Agricultural and Forest Resources” as one of 17 topical issues to be addressed in environmental assessment documents.

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

²⁵ United States Department of Agriculture, Natural Resources Conservation Service. Federal Farmland Protection Act, http://www.nrcs.usda.gov/wps/portal/nrcs/detail/?cid=nrcs143_008275. Accessed February 25, 2017.

²⁶ U.S. Forest Service, “About Us – Meet the Forest Service”<http://www.fs.fed.us/about-agency/meet-forest-service> and About the Agency, <http://www.fs.fed.us/about-agency>. Accessed February 25, 2017

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.”²⁷

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.”²⁸

California Department of Forestry and Fire Protection (CAL FIRE)

“CAL FIRE manages eight Demonstration State Forests that provide for commercial timber production, public recreation, and research and demonstration of good forest management practices. CAL FIRE foresters can be found in urban areas working to increase the number of trees planted in our cities, or preventing the spread of disease by identifying and removing infected trees. A Native American burial ground in the path of a logging operation or fire may be verified and saved due to a CAL FIRE archaeologist's review of the area. And, an improved strain of trees, resistant to disease and pests, may be nurtured and introduced by a CAL FIRE forester.”²⁹

Local Policies & Regulations

Tulare County General Plan Policies

The Tulare County General Plan 2030 Update has a number of policies that apply to projects within the County of Tulare. General Plan policies that relate and are generally applicable to the 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-1.3 Williamson Act - The County should promote the use of the California Land Conservation Act (Williamson Act) on all agricultural lands throughout the County located

²⁷ Tulare County General Plan 2030 Update, Background Report, February 2010. Page 4-14.

²⁸ Ibid. 4-15 and 4-16.

²⁹ California Department of Forestry and Fire Protection, About Cal Fire, <http://www.fire.ca.gov/about/about.php>. Accessed January 25, 2017.

outside established UDBs. However, this policy carries with it a caveat that support for the Williamson Act as a tax reduction component is premised on continued funding of the State subvention program that offsets the loss of property taxes.

AG-1.5 Substandard Williamson Act Parcels - The County may work to remove parcels that are less than 10 acres in Prime Farmland and less than 40 Acres in Non-Prime Farmland from Williamson Act Contracts (Williamson Act key term for Prime/Non-Prime).

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 growth boundaries for all urban areas located in the County.

AG-1.10 Extension of Infrastructure into Agricultural Areas - The County shall oppose extension of urban services, such as sewer lines, water lines, or other urban infrastructure, into areas designated for agriculture use unless necessary to resolve a public health situation. Where necessary to address a public health issue, services should be located in public rights-of-way in order to prevent interference with agricultural operations and to provide ease of access for operation and maintenance. Service capacity and length of lines should be designed to prevent the conversion of agricultural lands into urban/suburban uses.

IMPACT EVALUATION

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 to use 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 measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Preferred/Proposed Project:

- 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?**

Project Impact Analysis: *No Impact*

The Project site consists of the developed areas within Matheny Tract, and within existing rural and semi-rural County and possibly City of Tulare rights-of-way consisting of paved roadways and dirt/gravel shoulders; as such, agricultural land would not be impacted. Also, short-term, temporary equipment or materials staging areas on lands which are already devoid of agricultural uses would also be used. As such, agricultural land would not be impacted by this phase of construction-related activities. Construction of the pipelines would not result in the conversion of agriculturally productive lands to non-agricultural uses. Therefore, *No Project-specific Impacts* would occur.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is the entire State of California. This cumulative analysis is based on the Statewide FMMP map provided by the California Department of Conservation.

As noted earlier, since the Project would be constructed within existing road rights-of-way and other vacant lands, the Project would not result in any cumulative conversion of farmland to a non-agricultural use. Therefore, *No Cumulative Impact* 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.

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

Project Impact Analysis: *No Impact*

While some of the surrounding properties are under Williamson Act Contracts, the Project would be constructed within existing road rights-of-way. Therefore, the Project would not result in conflicts with existing agricultural zones or Williamson Act contracted lands; as such, *No Project-specific Impact* would occur.

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.

While some of the surrounding properties are under Williamson Act Contracts, the Project would be constructed within existing road rights-of-way. Therefore, the Project would not result in cumulative conflicts with existing agricultural uses or Williamson Act contracted lands and *No Cumulative Impact* would occur.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

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

- c) **Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(q), 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 are no forests or timberlands located on or near the Project area. The proposed pipeline would be constructed within existing road rights-of-way. Therefore, *No Project-specific Impacts* to forests, timberlands or related zoning would 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, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

There are no forests or timberlands located on or near the Project area. The proposed pipeline would be constructed within existing road rights-of-way. Therefore, *No Cumulative Impacts* to forests, timberlands or related zoning would occur.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* to this Checklist Item would 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 earlier, the Project area is not located within a forest land zone or will require the change of a forest land zone. As such, *No Project-specific Impacts* to this Checklist Item would 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, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

As noted earlier, the Project would not be located within a forest land zone or would not require the change of a forest land zone. As such, *No Cumulative Impacts* to this Checklist Item would occur.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* to this Checklist Item would 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 agricultural use or conversion of forest land to non-forest use?

Project Impact Analysis: *No Impact*

Since the Project would be constructed within existing road rights-of-way, the Project would not result in the conversion of farmland or forestland. Therefore, *No Project-specific Impact* would 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, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

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As noted earlier, the Project would be constructed within existing road rights-of-way. Therefore, ***No Impact*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

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

REFERENCES

California Department of Conservation Division of Land Resource Protection. Farmland Mapping and Monitoring Program. Websites:

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<http://www.conservation.ca.gov/dlrp/fmmp/Pages/Tulare.aspx>. Which was accessed June 14, 2017 at:

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http://www.nrcs.usda.gov/wps/portal/nrcs/detail/?cid=nrcs143_008275.

United States Department of Agriculture, U.S. Forest Service. Which was accessed June 14, 2017 at:

About the Agency: <http://www.fs.fed.us/about-agency> and Meet the Forest Service:
<http://www.fs.fed.us/about-agency/meet-forest-service>.

Provost & Pritchard Consulting Group, Project Feasibility Report, Matheny Tract Wastewater System, Tulare County, California 2016.

Air Quality

Chapter 3.3

SUMMARY OF FINDINGS

Based on the impact analysis below, potential impacts to aesthetics as a result of the Preferred/Proposed Project are determined to be ***Less Than Significant***. As noted earlier, this document has been prepared using the Preferred Alternative as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. Air quality impacts from the Project have been compared to a similar project (Plainview Wastewater System Project or Plainview) in Tulare County that were estimated using the Sacramento Metropolitan Air Quality Management District’s Roadway Construction Emissions Model Version 7.1.5.1 (which is the preferred model for estimating emissions from linear construction projects) and is included as **Appendix “A”**. As this Project is approximately 60% the size of Plainview’s (and the Plainview project did not exceed any air quality thresholds), it is reasonable to conclude that a less than significant impact would occur. The impact determinations in this chapter are based upon information obtained from the References listed at the end of this chapter. 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 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.”¹

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.

CEQA 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 an exceedance of criteria pollutants as established in the 1990 Clean Air Act amendments.
- Result in an exceedance of San Joaquin Valley Unified Air Pollution Control District criteria pollutant threshold.
- Result in nuisance odors.
- Result in emissions of toxic air contaminants (TAC).
- 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.

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.

¹ CEQA Guidelines, Section 15126.2(a).

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 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.”²

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 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 1,000 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.

“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 PM₁₀ emission standards for many years.”³ As of December 2015, the SJVAB is in nonattainment for federal and state ozone and PM_{2.5} standards, attainment for federal PM₁₀ standards, and nonattainment for state PM₁₀ standards.

² Tulare County General Plan 2030 Update RDEIR, Page 3.3-9.

³ Ibid.

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 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_x 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_x 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 O₃ levels, even though data shows that overall O₃ has decreased between 1982 and 2001.

Direct PM₁₀ emissions have decreased between the years 1975 and 1995 and have remained relatively constant since 2000. The main sources of PM₁₀ 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 (PM₁₀) to comply with federal attainment planning requirements for PM₁₀.⁴

SJVAB Attainment Status

The United States Environmental Protection Agency (EPA) and the California Air Resources Board (ARB) 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 CARB 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

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

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.

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.

Table 3.3-1 SJVAB Attainment Status		
	Designation Classification	
Pollutant	Federal Standards	State Standards
Ozone – one hour	No Federal Standard ¹	Nonattainment/Severe
Ozone – eight hour	Nonattainment/Extreme ²	Nonattainment
PM ₁₀	Attainment ³	Nonattainment
PM _{2.5}	Nonattainment ⁴	Nonattainment
CO	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead	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
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. 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) ³ On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM ₁₀ National Ambient Air Quality Standard (NAAQS) and approved the PM ₁₀ Maintenance Plan. ⁴ The Valley is designated nonattainment for the 1997 PM _{2.5} NAAQS. EPA designated the Valley as nonattainment for the 2006 PM _{2.5} NAAQS on November 13, 2009 (effective December 14, 2009).		
Source: San Joaquin Valley Unified Air Pollution Control District website accessed at: http://www.valleyair.org/aqinfo/attainment.htm .		

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

Pollutant	Averaging Time	California Standards		National Standards		
		Concentration	Method	Primary	Secondary	Method
Ozone (O₃)	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.075 ppm (147 µg/m ³)		
Respirable Particulate Matter (PM₁₀)	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		-		
Fine Particulate Matter (PM_{2.5})	24 Hour	---	---	35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12 µg/m ³	15.0 µg/m ³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	---	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m ³)		9 µg/m ³ (10 mg/m ³)	---	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		---	---	
Nitrogen Dioxide (NO₂)	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m ³)	Same as Primary Standard	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)		
Sulfur Dioxide (SO₂)	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	---	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	---		---	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas)	---	
	Annual Arithmetic Mean	---		0.030 ppm (for certain areas)	---	
Lead	30 Day Average	1.5 µg/m ³	Atomic Absorption	---	---	High Volume Sampler and Atomic Absorption
	Calendar Quarter	---		1.5 µg/m ³ (for certain areas)	Same as Primary Standard	

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Table 3.3-2
State and Federal Ambient Air Quality Standards

Table 3.3-2 State and Federal Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards		National Standards		
		Concentration	Method	Primary	Secondary	Method
		Rolling 3-Month Average	---		0.15 µg/m³	
Visibility Reducing Particles	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 (H2S)	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			
Source: California Air Resources Board website accessed at: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf .						

Table 3.3-3
Air Pollutant Sources, Effects and Control

Pollutant	Sources	Effects	Prevention and Control
Ozone (O₃)	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.
Respirable Particulate Matter (PM₁₀)	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 ₁₀ . Conserve energy.
Fine Particulate Matter (PM_{2.5})	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.

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

Pollutant	Sources	Effects	Prevention and Control
Carbon Monoxide (CO)	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.
Nitrogen Dioxide (NO₂)	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.
Lead	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.
Sulfur Dioxide (SO₂)	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.
Visibility Reducing Particles	See PM _{2.5}	Reduces visibility (e.g., obscures mountains and other scenery), reduced airport safety, lower real estate value, discourages tourism.	See PM _{2.5}
Sulfates	Produced by the reaction in the air of SO ₂ (see SO ₂ sources), a component of acid rain.	Breathing Difficulties, Aggravates Asthma, Reduced Visibility	See SO ₂
Hydrogen Sulfide	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.
<i>Source: California Air Resources Board website accessed at: http://www.arb.ca.gov/research/health/fs/fs2/fs2.htm.</i>			

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 36 air monitoring stations in the SJVAB. Of these, there are currently five stations in Tulare County: Porterville; Sequoia National Park–Ash Mountain; Sequoia National Park–Lower Kaweah; Visalia–Church; and Visalia–Airport. However, CO and SO₂ are not collected in these five stations, so the next closest monitor with those emissions must be identified.

For the purposes of background data and this air quality assessment, this analysis relied on data collected in the last three years for the CARB monitoring stations that are located in the closest proximity to the Project site. **Table 3.3-4** provides the background concentrations for ozone, particulate matter of 10 microns (PM₁₀), particulate matter of less than 2.5 microns (PM_{2.5}), carbon monoxide (CO), nitrogen dioxide (NO_x), sulfur dioxide (SO₂), and lead (Pb) as of July 2015. Since each monitoring site does not monitor all criteria pollutants information is provided from three separate monitoring sites, Fresno – 1st Street, Visalia – N Church Street, and Porterville – 1839 Newcomb St. monitoring stations for 2012 through 2014. No 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 from these three stations two measured air pollutants, ozone and particulate matter, have generally exceeded state air quality standards. The amount over the standards and 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.

Table 3.3-4. Air Quality Monitoring Summary					
Air Pollutant	Averaging Time	Item	2012	2013	2014
Ozone (O ₃) ¹	1-hour	Max 1-hour (ppm)	0.102	0.112	0.085
		Days > State Standard (0.09 ppm)	10	5	0
	8-hour	State Max 8-hour (ppm)	0.092	0.104	0.075
		Days > State Standard (0.07 ppm)	80	52	5
		National Max 8-hour (ppm)	0.092	0.103	0.074
		Days > National Standard (0.075 ppm)	44	23	0
Inhalable coarse particles (PM ₁₀) ²	Annual	Annual Average (µg/m ³)	38.1	44.5	ID
	24 hour	State 24-hour (µg/m ³)	76.2	160.0	104.2
		Days > State Standard (50 µg/m ³)	15	16	17
		National 24-hour (µg/m ³)	75.7	155.0	102.4
		Days > National Standard (150 µg/m ³)	0	1	0
Fine particulate matter (PM _{2.5}) ²	Annual	Annual Average (µg/m ³)	14.7	18.9	17.8
	24-hour	24-hour (µg/m ³)	76.2	124.2	81.3
		Days > National	7	14	12

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Table 3.3-4. Air Quality Monitoring Summary					
Air Pollutant	Averaging Time	Item	2012	2013	2014
Carbon monoxide (CO) ³	8-hour	Standard (35 µg/m ³)			
		Max 8-hour (ppm)	2.22	ID	ID
		Days > State and National Standards (9 ppm)	0	0	0
Nitrogen dioxide (NO ₂) ²	Annual 1-hour	Annual Average (ppm)	12	12	10
		Max 1-hour (ppm)	61.0	62.3	64.5
		Days > State Standard (0.18 ppm)	0	0	0
		Days > National Standard (100 ppb)	0	0	0
Sulfur dioxide (SO ₂) ^{3,4}	Annual	Annual Average (ppm)	ID	ID	ID
	24-hour	Max 24-hour (ppm)	0.004	ID	ID
<i>Abbreviations: ppm = parts per million; > = exceeded; µg/m³ = micrograms per cubic meter; ID = insufficient data; max = maximum</i> <i>State Standard = CAAQS; National Standard = NAAQS</i> ¹ data from Porterville station ² data from Visalia-Church station ³ data from Fresno-First station ⁴ data shown is for period 2011-2013 as data for 2014 is not available <i>Source: ARB website http://www.arb.ca.gov/adam/topfour/topfour1.php, accessed July 13, 2015</i>					

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_{2.5}, 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_{2.5}, respectively, at different concentrations.

Table 3.3-5 Air Quality Index and Health Effects of Ozone	
Air Quality Index/ Ozone Concentration	Health Effects Description
AQI 0-50 – Good Concentration 0-59 ppb	Sensitive Groups: Children and people with asthma are the groups most at risk.
	Health Effects Statements: None
	Cautionary Statements: None

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Table 3.3-5
Air Quality Index and Health Effects of Ozone

Air Quality Index/ Ozone Concentration	Health Effects Description
AQI 51-100 – Moderate 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.
AQI 101-150 – Unhealthy for Sensitive Groups 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.
AQI 151-200 – Unhealthy 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.
AQI 201-300 – Very Unhealthy 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.
AQI 301-500 – Hazardous* 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.

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Table 3.3-5
Air Quality Index and Health Effects of Ozone

Air Quality Index/ Ozone Concentration	Health Effects Description
<p>* AQI 300-500 are calculated using 1-hr ozone data (under 1-hr ozone concentrations 375-404 ppb are identified as Very Unhealthy)</p> <p>Sources: EPA websites, accessed at http://www.airnow.gov/index.cfm?action=aqibasics.aqi, http://www.airnow.gov/index.cfm?action=resources.aqi_conc_calc, and http://www.airnow.gov/index.cfm?action=resources.conc_aqi_calc.</p>	

Table 3.3-6
Air Quality Index and Health Effects of PM_{2.5}

Air Quality Index/ PM _{2.5} Concentration	Health Effects Description
AQI 0-50 – Good Concentration 0-12.0 µg/m ³	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
AQI 51-100 – Moderate Concentration 12.1-35.4 µg/m ³	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.
AQI 101-150 – Unhealthy for Sensitive Groups Concentration 35.5-55.4 µg/m ³	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.
AQI 151-200 – Unhealthy Concentration 55.5-150.4 µg/m ³	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.
AQI 201-300 – Very Unhealthy Concentration 150.5-250.4	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

Table 3.3-6
Air Quality Index and Health Effects of PM_{2.5}

Air Quality Index/ PM_{2.5} Concentration	Health Effects Description
$\mu\text{g}/\text{m}^3$	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.
AQI 301-500 – Hazardous*	Sensitive Groups: People with respiratory or heart disease, the elderly and children are the groups most at risk.
Concentration $\geq 250.5 \mu\text{g}/\text{m}^3$	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.
<i>Source: EPA websites, accessed at http://www.airnow.gov/index.cfm?action=aqibasics.aqi, http://www.airnow.gov/index.cfm?action=resources.aqi_conc_calc, and http://www.airnow.gov/index.cfm?action=resources.conc_aqi_calc.</i>	

Based on the AQI scale for the 8-hour ozone standard, the nearest monitoring station in Porterville experienced at least three days in the last three years that would be categorized as unhealthful (AQI 151-200), and as many as 80 days that were unhealthful 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 112 ppb in 2013. These values are higher than the 95-ppb cut off point for unhealthful 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_{2.5} is considered moderate and would be triggered by a 24-hour average concentration of $35.4 \mu\text{g}/\text{m}^3$, which is considered an exceedance of the federal PM_{2.5} 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 $124.2 \mu\text{g}/\text{m}^3$ 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 [PM₁₀] and less than 2.5 microns in diameter [PM_{2.5}]), 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.”⁵

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

⁵ Tulare County General Plan 2030 Update REIR. Pages 3.3-1 to 3.3-2.

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_{2.5}, or ozone. Locally prepared attainment plans are not required for areas that violate the State PM₁₀ 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.”⁶

“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.”⁷

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

⁶ Ibid. 3.3-2 to 3.3-3.

⁷ Op. Cit. 3.3-5.

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.”⁸

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 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.”⁹

“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

⁸ Op. Cit. 3.3-6 to 3.3-7.

⁹ 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>.

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 “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.”¹⁰

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.

¹⁰ Ibid. 1 and 2.

“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.”¹¹ 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 Plans¹²

“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 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 AIR DISTRICT, 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.”¹³

The planning requirements for the 1-hour plan remain in effect until replaced by a federal 8-hour ozone attainment plan. The EPA approved the 2004 Extreme Ozone Attainment Demonstration

¹¹ Air District website accessed at: http://www.valleyair.org/General_info/aboutdist.htm#Mission.

¹² The various ozone plans can be found on the Air District’s website at: http://www.valleyair.org/Air_Quality_Plans/Ozone_Plans.htm.

¹³ Tulare County General Plan 2030 Update RDEIR. Pages 3.3-12 to 3.3-13.

Plan, including revisions to the plan, on March 8, 2010, effective April 7, 2010. However, the Air Basin failed to attain the standard in 2010 and was subject to a \$29-million Clean Air Act penalty. The penalty is being collected through an additional \$12 motor vehicle registration surcharge for each passenger vehicle registered in the Air Basin that will be applied to pollution reduction programs in the region. The District also instituted a more robust ozone episodic program to reduce emissions on days with the potential to exceed the ozone standards.

On May 6, 2014, the District submitted a formal request that the EPA determine that the Valley has attained the federal 1-hour ozone standard and to eliminate the \$29 million Clean Air Act penalty. Per federal requirements, the District's submittal includes a clean data finding (2011-2013) and a finding that attainment is due to permanent and enforceable emissions reductions.

As part of the clean data finding, the District requested EPA concurrence that an exceedance at Fresno-Drummond on August 10, 2012 was due to an exceptional event. Alternatively, the District also provided compelling evidence that the Valley would attain the 1-hour ozone standard but for the influence of international air pollutant transport, allowing nonattainment penalties to be lifted under CAA 179B.

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. The 2007 Ozone Plan details the plan for achieving attainment on schedule with an "extreme nonattainment" deadline of 2024. At its adoption of the 2007 Ozone 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 2007 Ozone Plan contains measures to reduce ozone and particulate matter precursor emissions to bring the Basin into attainment with the federal 8-hour ozone standard. The 2007 Ozone Plan calls for a 75-percent reduction of NO_x and a 25-percent reduction of ROG (SJVAPCD 2007). 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 District Governing Board adopted the 2007 Ozone Plan on April 30, 2007. 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 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:

- Increasing transit service to the unincorporated communities of Woodville, Poplar and Cotton Center;
- Purchase of three new buses and installation of additional bicycle racks on buses;
- Public outreach to encourage the use of alternative modes of transportation;
- Providing preferential parking for carpools and vanpools;
- Removing on-street parking and providing bus pullouts in curbs to improve traffic flow;
- Supporting the purchase of hybrid vehicles for the County fleet;
- Mandating that the General Plan 2030 Update implement land use policies supporting public transit and vehicle trip reduction; and
- 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.”¹⁴

Particulate Matter Plans¹⁵

The SJVAB was designated nonattainment of state and federal health-based air quality standards for PM₁₀. However, as discussed below, the SJVAB has demonstrated attainment of the federal

¹⁴ Ibid. 3.3-13.

¹⁵ 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.

PM₁₀ standards and currently remains in nonattainment only for the state standards. The SJVAB is also designated nonattainment of state and federal standards for PM_{2.5}.

To meet CAA requirements for the PM₁₀ standard, the Air District adopted a PM₁₀ Attainment Demonstration Plan (Amended 2003 PM₁₀ Plan and 2006 PM₁₀ Plan), which had an attainment date of 2010. The Air District adopted the 2007 PM₁₀ Maintenance Plan in September 2007 to assure the San Joaquin Valley's continued attainment of the EPA's PM₁₀ standard. The EPA designated the San Joaquin Valley as an attainment/maintenance area for PM₁₀ 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_{2.5} Plan satisfying federal implementation requirements for the 1997 federal PM_{2.5} 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_{2.5} Standard (2015 PM_{2.5} 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_{2.5} Plan contains most 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/m³) by 2018 and the annual standard (15 µg/m³) by 2020.

In December 2012, the Air District adopted the 2012 PM_{2.5} Plan to bring the San Joaquin Valley into attainment of the EPA's 2006 24-hour PM_{2.5} standard of 35 µg/m³. The ARB approved the Air District's 2012 PM_{2.5} 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_{2.5} standard in 2012 and is in the process of completing attainment designations. 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 PM₁₀ standards that the SJVAB has received. "On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM₁₀ NAAQS and approved the PM₁₀ 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 PM₁₀ standard, all requirements included in the AIR DISTRICT PM₁₀ Plan are still in effect. The resolution contains the following Best Available Control Measures (BACMs) to be implemented in order to reduce PM₁₀ emissions in the County:

- Paving or stabilizing of unpaved roads and alleys;
- Paving, vegetating, chemically stabilizing unpaved access points onto paved roads;

- Curbing, paving, or stabilizing shoulders on paved roads;
- Frequent routine sweeping or cleaning of paved roads;
- Intensive street cleaning requirements for industrial paved roads and streets providing access to industrial/ construction sites; and
- Debris removal after wind and rain runoff when blocking roadways.”¹⁶

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 impact¹⁷. The Air 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.”¹⁸

Table 3.3-7 Air Quality Thresholds of Significance – Criteria Pollutants			
Pollutant/ Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non- Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SOx	27	27	27
PM₁₀	15	15	15
PM_{2.5}	15	15	15
<i>Source: Air District, GAMAQI, Table 2, page 80</i>			

¹⁶ Tulare County General Plan 2030 Update RDEIR. Page 3.3-14.

¹⁷ Air District, Guidance for Assessing and Mitigating Air Quality Impacts. Page 74.

¹⁸ Ibid. 75.

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 circumstances, the District may be precluded by state law or other District rule requirements from requiring a stationary source to offset emissions increases.”¹⁹

Air District Rules and Regulations²⁰

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 PM₁₀ 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 PM₁₀ Maintenance Plan. These rules are designed to reduce PM₁₀ emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and trackout, 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);

¹⁹ Op. Cit. 76.

²⁰ For a full list of Air District rules and regulations, see their website at: <http://www.valleyair.org/rules/1ruleslist.htm>.

- 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. Examples of stationary sources associated with the Project that may require District permits include, but not limited to, is the City of Tulare Wastewater Treatment Plant.

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.

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 4625 – Wastewater Separators. The purpose of this rule is to limit VOC emissions from wastewater separators by requiring vapor loss control devices, recordkeeping, inspections and test methods.

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_x and PM₁₀ 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.²¹ The rule also exempts any development project on a facility whose primary functions are subject to Air District permitting requirements.²² The Project includes the installation of infrastructure to provide

²¹ Air District Rule 9510, Section 3.13

²² Ibid. Section 4.4.3

existing residences without municipal sewage facilities with connection to an existing wastewater treatment plant. As such, the Project does not increase capacity or activity and upon completion will be tied into a facility subject to Air District permitting requirements; therefore, the Project is not subject to Rule 9510.

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.”²³

“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.”²⁴

“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.”²⁵

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:

²³ Air District, GAMAQI. Page 50.

²⁴ Ibid. 51.

²⁵ Op. Cit. 52.

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.

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

Will the project:

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

Project Impact Analysis:

Less Than Significant Impact

The following three criteria will be used for determining whether the Project will conflict with or obstruct the implementation of the applicable air quality plan (AQP):

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?

2. Will the project conform to the assumptions in the AQPs?
3. Will the project comply with applicable control measures in the AQPs?

Contribution to Air Quality Violations

The Air District's Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) provides the following guidance on determining whether a project would conflict or obstruct implementation of the applicable air quality plan: "...the District has established thresholds of significance for criteria pollutant emissions, which 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."''²⁶

The Project includes the installation of wastewater lateral pipelines to connect existing residential units in the unincorporated community of Matheny Tract to an existing wastewater treatment plant in the City of Tulare. The Project would result in short-term construction-related criteria air pollutant emissions. It is not necessary to calculate air quality emission as, by analogy, the emissions from this project compared to a similar project (Plainview Wastewater System Project) within Tulare County would not exceed Air District thresholds. **Table 3.3-8** (see Checklist Item b) below), shows emissions from the Plainview Wastewater System Project's Project-related construction emissions would be below the Air District's thresholds of significance shown in **Table 3.3-7** for all criteria pollutants. As Matheny Tract's project would be approximately 60% the size of Plainview's, and air emissions are simple "straight-line" calculations, it is reasonable to assume that Matheny Tract's emissions would not exceed 60% the amount of Plainview's. Also, operational emissions associated with the Project would result from the vehicle trips associated with the maintenance of the pipelines. Maintenance trips would also be below the Air District's 1,453 trips per day Small Project Analysis Level (SPAL) limits and are, therefore, assumed to fall below the Air District's thresholds of significance.²⁷ Therefore, the Project would not increase the frequency or severity of existing air quality violation, nor would it cause or contribute to new violations. Therefore, the Project would result in a ***Less Than Significant Project-specific Impact*** to this Checklist Item would occur

Consistency with Assumptions in AQPs

The Air District estimates future emissions in the air basin and develops strategies required to reduce emissions through new regulations. Emissions are calculated based on population, vehicle, and development trends. A project may be inconsistent with an air quality plan if it

²⁶ Op. Cit. 65.

²⁷ Op. Cit. 85; and SPAL website <http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI-SPAL.PDF>.

results in population or employment growth greater than estimates in the air quality plans. Projects that propose growth greater than anticipated projections would conflict with air quality plans and may result in potentially significant impacts as a result of emissions levels in excess of established thresholds.

The proposed wastewater treatment pipeline would neither increase population nor employment within the air basin as the pipeline is sized to serve the existing unincorporated community of Matheny Tract. Also, it is anticipated that there would be no change to City of Tulare staffing levels to maintain its operations at the City's wastewater treatment plant (WWTP). As noted earlier, the Project remains subject to all applicable Air District rules and regulations and it has been shown that emission levels would not exceed Air District thresholds during construction-or operations-related activities. As such, the Project is consistent with the Tulare County General Plan 2030 Update, as well as the Air District's ozone and particulate matter plans which are included in the State Implementation Plan. Therefore, the Project would result in a ***Less Than Significant Project-specific Impact*** to this Checklist Item.

Control Measures

The Project consists of the installation of wastewater collection system and associated lateral pipelines to connect customers in Matheny Tract; and the construction of the main line (and lift stations) from Matheny Tract to the City of Tulare's WWTP. As such, the Project is subject to all applicable Air District and ARB rules and regulations for construction-related activities. A Fugitive Dust Control Plan would be submitted to the Air District to comply with Regulation VIII requirements prior to the initiation of construction. Therefore, the Project would result in a ***Less Than Significant Project-specific Impact*** to this Checklist Item.

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

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. As previously discussed, Project-related criteria pollutant emissions would not exceed Air District significance thresholds and, as such, the Project is consistent with and would not obstruct the applicable air quality attainment plan. Furthermore, the Project would comply with all applicable Air District rules and regulations. Therefore, the Project would result in a ***Less Than Significant Cumulative Impact*** related this Checklist Item.

Mitigation Measure(s): ***None Required***

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

As noted earlier, the Project is consistent with all applicable AQPs, it would comply with required control measures, and it would not contribute substantially to an existing or projected air quality violation. Therefore, the Project would result in ***Less Than Significant Project-specific and Cumulative Impacts*** related to this Checklist Item.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Project Impact Analysis:

Less Than Significant Impact

Typically, construction of a project generates emissions of various air pollutants, including criteria pollutants such as carbon monoxide (CO), ozone precursors (such as nitrous oxides (NO_x) and reactive organic gases (ROG) or Volatile Organic Compounds (VOC)), particulate matter (both less than 10 microns in diameter (PM₁₀) and less than 2.5 microns in diameter (PM_{2.5})), as well as sulfur oxides (SO_x). For example, typical emission sources during construction-related activities include equipment exhaust, dust from wind erosion, earthmoving activities, and vehicle movements.

To assist in evaluating impacts of project-specific air quality emissions, the Air District has adopted thresholds of significance for criteria pollutant emissions (expressed in units of tons per year (tons/yr.)) as previously presented in **Table 3.3-7**, and reiterated in **Table 3.3-8**. The following unmitigated, construction-related emissions were estimated for the Plainview Project using the Sacramento Metropolitan Air Quality Management District (Sac Metro) Roadway Construction Emissions Model (Version 7.1.5.1, December 2013, in Excel-5Mb) and reduced by seventy-five percent (40%) to reflect Matheny Tract's project size (and subsequent construction-related activities emissions) compared with Plainview's:

Table 3.3-8			
Maximum Unmitigated Project Construction-Related Emissions			
Pollutant	*Plainview Project Construction Emissions (tons/yr)	Matheny Tract Project Construction Emissions (tons/yr)	SJVAPCD Thresholds of Significance (tons/yr)
ROG (VOC)	1.3	0.78	10
NO _x	9.6	5.76	10
CO	5.8	3.48	100
SO _x	Less than 0.001	Less than 0.0006	27
PM ₁₀	0.8	0.48	15
PM _{2.5}	0.6	0.36	15
<i>Source: * As noted earlier, air quality impacts from the Project have been compared to a similar project (Plainview Wastewater System Project or Plainview) in Tulare County that were estimated using the SacMetro Roadway Construction Emissions Model Version 7.1.5.1 (see Appendix "A" of this DEIR. Website: http://airquality.org/ceqa/RoadConstructionEmissionsModelVer7_1_5_1.xls</i>			

As shown in **Table 3.3-8**, the short-term construction-related emissions would not exceed Air District thresholds of significance. Additionally, the Project operations would generate a very small number of vehicle trips associated with maintenance of the pipeline. As these trips are far lower than 1,453 vehicle trips per day SPAL limit, operational emissions are assumed to

be insignificant.²⁸ Therefore, the Project would result in a ***Less Than Significant Project-specific Impact*** to this Checklist Item.

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

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. This cumulative analysis is based on the information provided in the Sac Metro Road Construction Emissions Model Version 7.1.5.1 data presented in Appendix “A” of this DEIR that was used for Plainview’s similar wastewater system project. The Project would result in short-term emissions relating to the construction of the pipeline. Ongoing operation and maintenance of the pipeline would result in a limited number of vehicle trips associated with maintenance of the pipeline and/or lift station(s). The Project, both during construction and operation phases, would result in less than significant impacts to air quality. Project related emissions would not substantially contribute to cumulative impacts in the air basin. Therefore, the Project would result in a ***Less Than Significant Cumulative Impact*** to this Checklist Item.

Mitigation Measure(s): ***None Required.***

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

As noted earlier, the Project’s construction and operational emissions would not exceed the Air District’s thresholds of significance and would not contribute substantially to an existing or projected air quality violations. Therefore, the Project would result in ***Less Than Significant Project-specific and Cumulative Impacts*** related to this Checklist Item.

- 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)?**

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

As discussed in Checklist Items a) and b) above, the Project would be required to comply with all applicable Air District and ARB standards, rules, and regulations for construction activities. As shown in **Table 3.3-8**, Project-related construction emissions do not exceed the Air District’s thresholds of significance for any criteria pollutant. Therefore, the Project would have a ***Less Than Significant Project-specific Impact*** related to this Checklist Item.

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

²⁸ Air District, GAMAQI. Page 85.

The geographic area of this cumulative analysis is San Joaquin Valley Air Basin. This cumulative analysis is based on the information provided in the Sac Metro Road Construction Emissions Model (Version 7.1.5.1) data presented in Appendix “A” of this DEIR. The Project would result in short-term emissions relating to the construction of the pipeline. Ongoing operation and maintenance of the pipeline would result in a limited number of vehicle trips associated with maintenance of the pipeline. Furthermore, the Project would comply with all applicable Air District and ARB rules and regulations for construction-related activities. During construction and operation phases, the Project would not exceed Air District thresholds of significance and, therefore would not substantially contribute to cumulative impacts in the air basin. As such, the Project would result in a ***Less Than Significant Cumulative Impact*** to this Checklist Item.

Mitigation Measure(s): ***None Required.***

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

As noted earlier, the Project construction- and operations-related emissions would not exceed the Air District’s thresholds of significance and would not contribute substantially to an existing or projected air quality violations. Therefore, the Project would result in ***Less Than Significant Project-specific and Cumulative Impacts*** related to this Checklist Item.

d) 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. For the purposes of a CEQA analysis, 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.²⁹

There are less than 20 sensitive receptors (i.e., residences) located along the proposed main pipeline alignment. The majority of receptors have been identified as single-family residences which are located within the community of Matheny Tract and along (mostly east of) Road 96. There are no other sensitive receptors such as daycare centers, nursing homes, or hospitals located along the pipeline alignments. The nearest school is approximately 1.40 miles south of the southernmost extent of the main sewer line.

The Air District does not provide specific guidance on evaluation of a project’s potential for adverse health risks during construction-related activities. However, the Air District’s

²⁹ Ibid. 10, 39, and 44.

Ambient Air Quality Analysis Project Daily Emissions Assessment (2013) and draft policy Project Impact on Ambient Air Quality Status under CEQA (2015) documents do provide guidance on how to evaluate whether a project would require an Ambient Air Quality Analysis (AAQA).³⁰ Projects requiring an AAQA would also need to prepare a health risk assessment if the AAQA indicates that project emissions exceed any ambient air quality standards at the project boundary.

Pursuant to the Air District's guidance, Project-related average daily emissions were calculated and are provided in **Table 3.3-9**. Construction of the Project would take place in phases over the course of approximately 120 days (or approximately 6 months accounting for only active construction days). As shown in **Table 3.3-9**, Plainview's average daily emissions are all below the Air District's 100 pound per day (lbs./day) threshold for requiring an AAQA. As the Matheny Tract project is approximately sixty percent (60%) the size of Plainview, emissions estimates were reduced by 60% to reflect Matheny Tract's size (and subsequent construction-related activities emissions) compared with Plainview's.

Table 3.3-9				
Unmitigated Project Construction-Related Average Daily Emissions				
Pollutant	*Plainview Project Construction Emissions (tons/yr.)	Matheny Tract Project Construction Emissions (tons/yr.)	Plainview Average Daily Construction Emissions (lbs./day)	Matheny Tract Average Daily Construction Emissions (lbs./day)
ROG (VOC)	1.3	0.78	9.4	5.64
NO _x	9.6	5.76	69.6	41.76
CO	5.8	3.48	42.0	50.25
SO _x	Less than 0.001	0.0006	0	0
PM ₁₀	0.8	0.48	5.8	3.48
PM _{2.5}	0.6	0.36	4.3	2.56
<i>Source: *See Appendix "A" of this DEIR.</i>				

Since the Project's construction-related emissions do not require an AAQA and operations are likely to be limited to maintenance of the pipeline and did not require quantification of emissions, the Project does not warrant a health risk assessment. As such, significant health risk impacts are not anticipated. Therefore, the Project would result in a ***Less Than Significant Project-specific Impact*** related to this Checklist Item.

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

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. Although there are sensitive receptors (in the form of residences) along the Project's

³⁰ Air District websites at http://www.valleyair.org/transportation/ceqa%20rules/gamaqi_aaqa_05-24-2013.pdf and <http://www.valleyair.org/busind/draft-policies/project-impact-on-ambient-air-quality-under-ceqa.pdf>, accessed December 11, 2015.

alignment, it is anticipated that the Project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, based on the above analysis and projected emissions from the Project's construction phase, the Project would result in a ***Less Than Significant Cumulative Impact*** related to this Checklist Item.

Mitigation Measure(s): ***None Required***

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

As noted earlier, the Project would result in ***Less Than Significant Project-specific and Cumulative Impacts*** related to this Checklist Item.

e) Create objectionable odors affecting a substantial number of people?

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

While offensive odors do not cause any physical harm, they can be unpleasant, leading to distress among the general public and generates citizen complaints to local government agencies (such as the Sheriff, Fire or Environmental Health Departments) and the local air district. Any project with the potential to expose members of the public to objectionable odors has the potential to adversely impact the atmosphere (environment). Because of the subjective nature of odor impacts, the number of variables that may influence the potential for an odor impact, and the variety of odor sources; there are no quantitative or formulaic methodologies to determine if potential odors would have a significant impact. Projects should be evaluated on a case-by-case basis to determine if there are anticipated impacts to the environment associated with objectionable odors.

It is anticipated that the Project's construction-related activities would result in diesel emissions exhaust from construction equipment along the course of the pipelines which may release odors into the atmosphere. However, construction-related emissions would be short-term, temporary, and are not anticipated to affect a substantial number of receptors at any given time. Following construction-related activities, the Project would not emit odors. Therefore, the Project would result in a ***Less Than Significant Project-specific Impact*** related to this Checklist Item.

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

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. The Project's construction-related activities could potentially generate odors associated with diesel combustion emissions; however, construction-related odors are anticipated to be temporary and short-term. The Project's permanent operation (maintenance of the pipeline) is not anticipated to result in the release of odors into the atmosphere. As such, the Project would result in a ***Less Than Significant Cumulative Impacts*** related to this Checklist Item.

Mitigation Measure(s): ***None Required.***

Conclusion:

Less Than Significant Impact

As noted earlier, the Project would result in ***Less Than Significant Project-specific and Cumulative Impacts*** related to this Checklist Item.

DEFINITIONS/ACRONYMS

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 (H₂S), 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/m₃) [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_x), NO_x are compounds of nitric oxide (NO) and nitrogen dioxide (NO₂). NO_x are primarily created from the combustion process and are a major contributor to ozone smog and acid rain formation. NO_x also forms ammonium nitrate

particulate in chemical reactions that occur when NO_x forms nitric acid and combines with ammonia. Ammonium nitrate particulate is an important contributor to PM₁₀ and PM_{2.5}.

Ozone (O₃), Ozone is a pungent, colorless, toxic gas created in the atmosphere rather than emitted directly into the air. O₃ 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 O₃ 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 O₃, 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_{2.5}), The federal government has recently added standards for smaller dust particulates. PM_{2.5} 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 (PM₁₀), 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. PM₁₀ refers to dust/particulates that are 10 microns in diameter or smaller. The fraction of PM between PM_{2.5} and PM₁₀ is comprised primarily of fugitive dust. The particles between PM₁₀ and PM_{2.5} 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 PM₁₀, 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 (SO₂), Sulfur dioxide belongs to the family of SO_x. 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_x can form sulfuric acid in the atmosphere that in the presence of ammonia forms ammonium sulfate particulates, a small but important component of PM₁₀ and PM_{2.5}. 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.

Abbreviations and 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 ₂ S	Hydrogen Sulfide
NAAQS	National Ambient Air Quality Standards
NO ₂	Nitrogen Dioxide
MPO	Metropolitan Planning Organization
O ₃	Ozone
Pb	Lead
PM _{2.5}	Particulate Matter 2.5 Micrometers
PM ₁₀	Particulate Matter 10 Micrometers
RACM	Reasonable Available Control Measures
RACT	Reasonable Available Control Technologies
ROG	Reactive Organic Gases
SIP	State Implementation Plan
SO ₂	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 Preferred/Proposed Project would result in *Less Than Significant Impacts* to Biological Resources. A detailed review of potential impacts is provided in the following analysis. A California Natural Diversity Database (CNDDDB) search conducted on March 14, 2017, indicates there are special status species within the Tulare Quadrant Species List (which includes the Matheny Tract Project area) is included as Appendix “B” of this document which is used as the basis for determining this Project would result in less than significant impacts. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 2, City of Tulare option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”.

INTRODUCTION

CEQA Requirements for Evaluation of Impacts to Biological Resources

“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.”¹

“SSCs [Species of Special Concern] should be considered during the environmental review process. The California Environmental Quality Act (CEQA; California Public Resources Code Sections 21000-21177) requires that State agencies, local governments, and special districts evaluate and disclose impacts from “projects” in the State. Section 15380 of the CEQA Guidelines clearly indicates that species of special concern should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein.”²

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.³

¹ CEQA Guidelines Section 15382

² California Department of Fish and Wildlife. Website at: <http://www.dfg.ca.gov/wildlife/nongame/ssc/>. Accessed March 14, 2017.

³ Op. Cit.

This section of the Draft Environmental Impact Report (DEIR) and associated biological evaluation for the Project meets CEQA requirements by addressing potential impacts to biological resources on the proposed Project site and alternatives, which are located in the vicinity of Matheny Tract in Tulare County. The checklist below addresses impacts related to the Preferred Alternative (Alternative 2, City of Tulare option or “the Project”). The “Environmental Setting” section provides a description of biological 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.

DEFINITIONS

CEQA Guidelines Section 15380 provides definitions for the terms “species,” “endangered,” “threatened” and “rare.”

Endangered, Rare or Threatened Species:

(a) "Species" as used in this section means a species or subspecies of animal or plant or a variety of plant.

(b) A species of animal or plant is:

(1) "Endangered" when its survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors; or

(2) "Rare" when either:

(A) Although not presently threatened with extinction, the species is existing in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or

(B) The species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered "threatened" as that term is used in the Federal Endangered Species Act.

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

Tulare County contains more than 4,840 square miles (3,097,600 acres) within its borders. It is located in a geographically diverse region, which can be divided into three general topographic zones: the San Joaquin Valley region on the west side of the County; the Sierra Nevada foothills region east of the valley area; and the Sierra Nevada mountain region to the east of the foothills. Elevations range from 200 to 14,000 feet above sea level. The proposed Project is located in the San Joaquin Valley floor portion of the County, 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.⁴

This area has a Mediterranean climate, with dry, hot summers with daytime temperatures commonly exceeding 90° Fahrenheit. Winters are rainy and cool with daytime temperatures rarely exceeding 65° Fahrenheit. Annual precipitation in the general vicinity of the project site is highly variable from year to year with a mean annual rainfall of approximately 12 inches, most of which falls between the months of October and March. Virtually all precipitation falls in the form of rain.

The native vegetation of the Valley is predominately characterized by the purple needlegrass series, valley oak series, vernal pools and wetland communities, and blue oak series. Fauna associated with this section include mule deer (*Odocoileus hemionus*), black-tailed deer (*Odocoileus hemionus columbianus*), coyotes (*Canis latrans*), white-tailed jackrabbits (*Lepus townsendii*), kangaroo rats (*Dipodomys ingens*), kit fox (*Vulpes macrotis*), and muskrats (*Ondatra zibethicus*). Birds include waterfowl, hawks, golden eagles (*Aquila chrysaetos*), owls, white-tailed kites (*Elanus leucurus*), herons, western meadowlark (*Sturnella neglecta*) and California quail (*Callipepla californica*).⁵

This area is located in the Great Valley geomorphic province. The Great Valley province is an alluvial plain in the central portion of California, where sediments have been deposited almost continuously since the Jurassic Period (California Geological Survey [CGS] 2002).⁶

⁴ Tulare County General Plan 2030 Update, Background Report, February 2010. Pages 1-4.

⁵ Ibid. Pages 9-10.

⁶ Ibid.

The CNDDDB search identified potential special status species which might occur onsite or in the project vicinity. Sources of information used in their research included: the *California Natural Diversity Data Base (CNDDDB)* (DFG 2017) related to plants and animals of the San Joaquin Valley region. See **Table 3.4-1** for a complete listing of all potential species for the project vicinity which is also contained in Appendix “B”.

Four (4) Special Status Species are known to occur in the vicinity of the proposed Matheny Tract Wastewater System (the action area). Field surveys were not conducted during this biological evaluation because all areas that will be disturbed are located on actively used public rights-of-way (i.e., existing roadways and/or shoulders). As such, the Project would not involve any habitat of any special species. A Swainson’s hawk’s nest is reported in the CNDDDB search which is located outside of the Project area approximately 1,560 feet south of the North Matheny Tract and approximately 3,300 feet east of South Matheny Tract.

Regarding potential project Alternatives, Alternative 1 (On-Site Septic Tank Maintenance District) would retain the status quo but result in replacing existing on-site systems that denitrify wastewater and thus result in no disturbance of any special status species habitat; Alternative 3 (Gravity Collection System with Community Wastewater Treatment Facility [i.e., standalone Matheny Tract WWTF]) may result in greater potential impacts to special status species, however, this Alternative is not economically feasible and will not be pursued; and Alternative 4 (No Project), which is not considered a viable alternative for purposes of the Feasibility Study as it results in the status quo, as such, no additional impacts would occur to any special status species.

Draft Environmental Impact Report
Matheny Tract Wastewater System Project Feasibility Report

Table 3.4-1 Special Status Species with Potential to Occur in the Project Vicinity			
Common Name <i>Scientific Name</i>	Status (Federal/State/ CNPS)	Habitat Requirements	Potential for Occurrence in Alternatives area
Species Listed or Proposed for Listing			
Plants-			
California jewel-flower (<i>Caulanthus californica</i>)	FT/CE/1B.1	Cismontane woodland, and valley and foothill grassland.	Unlikely. No undisturbed habitat exists along the alignments and sites. Intensive agricultural, residential and commercial uses, and roadways where sewer collection system pipes will be located have completely displaced natural habitat.
San Joaquin adobe sunburst (<i>Pseudobahia peirsonii</i>)	FT/CE/1B.1	This annual sunflower 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.	Unlikely. No habitat or soils that support the species in or near the Project site. Intensive agricultural, residential and commercial uses, and roadways where sewer collection system pipes will be located have completely displaced natural habitat.
Birds			
Swainson’s hawk (<i>Buteo swainsoni</i>)	FSC/CT	Nests in large trees especially in riparian corridors. Forages in agricultural fields and grasslands.	Possible. Potential nesting trees are located off-site and east of the Project location. Proximity to crops such as alfalfa may provide foraging habitat.
Mammals			
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FE/CT	Chenopod scrub, grasslands, sometimes forages in agricultural areas.	Possible. It is possible that denning and foraging habitat exists within the Project area. However, intensive agricultural, residential and commercial uses, and roadways where sewer collection system pipes will be located have completely displaced natural habitat. All work will be completed within existing rights-of-way that are currently paved with permanent surfaces versus the habitat suitable as denning sites. The potential for foraging habitat is possible on adjacent agricultural fields.
STATUS CODES:			
Federal		California	
FE <i>Federally Endangered</i> FT <i>Federally Threatened</i> FSC <i>Species of concern as identified by the U.S. Fish and Wildlife Service</i>		CT - <i>California Threatened</i> 1B.1 - <i>Seriously threatened in California</i>	

Chapter 3.4: Biological Resources

June 2017

REGULATORY SETTING

Applicable Federal, State, and Local regulations specific to biological resources are described as follows. 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

“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).”⁷

“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.”⁸

Conservation Plans

A habitat conservation plan (HCP) is a plan that outlines ways of maintaining, enhancing, and protecting a given habitat type needed to protect species and usually includes measures to minimize impacts. There are two HCPs 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.

⁷ Tulare County General Plan 2030 Update and Final EIR adopted by the Board of Supervisors, August 28, 2012, Resolution No. 2012-0699, page, 3.11-2.

⁸ Ibid.

The Recovery Plan for Upland Species of the San Joaquin Valley identifies several (34) species that are important in the San Joaquin Valley: The Kern Water Bank Habitat Conservation Plan also applies to Tulare County; this Plan; however, only applies to an area in Allensworth located in the southwest quadrant of the County.⁹

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 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 (County of Tulare, 2010 Background Report, pages 9-6 and 9-7, 2010a). 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.”¹⁰

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.”¹¹

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 does not directly abut a relatively permanent non-navigable tributary.”¹²

⁹ Kern Water Bank, Habitat Conservation Plan/Natural Community Conservation Plan, Kern Water Bank Authority, October 2, 1997.

¹⁰ Tulare County General Plan 2030 Update and Final EIR adopted by the Board of Supervisors, August 28, 2012, Resolution No. 2012-0699. Page 3.11-2.

¹¹ Ibid. 3.11-2.

¹² Tulare County General Plan 2030 Update and Final EIR adopted by the Board of Supervisors, August 28, 2012, Resolution No. 2012-0699. . 3.11-1, 3.11-2.

“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.”¹³

State Agencies & Regulations

California Department of Fish and Wildlife (formerly Department 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 determine whether the Project applicant must enter into a Streambed Alteration Agreement through the authority of Section 1601 (for public entities) or Section 1603 (for private entities) of the Fish and Game Code.”¹⁴

California Endangered Species Act

“CDFW 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 Wildlife 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 Section 86). Under California Fish and Wildlife Code Section 101-108 and CEQA Guidelines 15386(a), 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 for use by DFW

¹³ Ibid.

¹⁴ Op. Cit. 3.11-3.

as a management tool for consideration in future land use decisions (Fish and Game Code Section 2080).”¹⁵

“All State lead agencies must consult with DFW under the California Endangered Species Act when a proposed project may affect State-listed species. DFW determines 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 Game Code Section 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 Game Code Section 2090 et seq.)”.¹⁶

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 of State-listed species whose conservation and management are provided in a NCCP, once a NCCP is prepared (Fish and Game Code Section 2800 et seq.).”¹⁷

Federally and State-Protected Lands

“Ownership of California’s wild lands 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.”¹⁸

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,

¹⁵ Op. Cit.

¹⁶ Op. Cit.

¹⁷ Op. Cit. 3.11-4.

¹⁸ Op. Cit.

Department of Fish and Wildlife, Department of Water Resources, and the State Water Resources Control Board.”¹⁹

Porter-Cologne Water Quality Control Act

“The Porter-Cologne Water Quality Control Act regulates the discharge of waste into waters of the State. The Regional Water Quality Control Board (RWQCB) administers this regulation. Water Code Section 13260 requires “any person discharging, or proposing to discharge waste, within any region that could affect the waters of the State to file a report of discharge.” A report of waste discharge (“RWD”) is essentially an application for waste discharge requirements (“WDRs”). WDRs contain conditions imposed on a given discharge by the appropriate RWQCBs for the purpose of protecting the beneficial uses of the waters of the State. Upon receipt of a RWD, the RWQCB may issue WDRs imposing conditions on the proposed discharge, or it may waive the requirement for WDRs.”²⁰

California Native Plant Society

"Originally formed in 1965 in the east bay region, the California Native Plant Society (CNPS) is a statewide non-profit organization of amateurs and professionals with a common interest in California's native plants." "The mission of the CNPS Rare Plant Program (The Program) is to develop current, accurate information on the distribution, ecology, and conservation status of California's rare and endangered plants, and to use this information to promote science-based plant conservation in California. The Program, since its inception in 1968, has developed a reputation for scientific accuracy and integrity. The Program's data are widely accepted as the standard for information on the rarity and endangerment status of the California flora. For this reason, The Program's primary responsibility is the maintenance of the CNPS Inventory of Rare and Endangered Plants of California (the CNPS Inventory), which tracks the conservation status of hundreds of plant species.

The Program operates under a Memorandum of Understanding (MOU) with the CDFW. The MOU outlines broad cooperation in rare plant assessment and protection, and formalizes cooperative ventures such as data sharing and production of complementary information sources for rare plants. To facilitate this cooperation, the Rare Plant Botanist is housed at the Sacramento office of the CDFW's Biogeographic Data Branch. CNPS and the CDFW Natural Diversity Data Base (CNDDDB) share all data files and rare plant information and work together on a daily basis to provide current, accurate information on the distribution, endangerment status, and ecology of California's rare flora. Once a species has undergone the CNPS Review Process and has been added to a CNPS List, CNDDDB uses the information gathered to map the rarest plant species to their precise locations. CNDDDB makes this information available through RareFind or custom Geographic Information Systems (GIS) maps and digital information. While CNPS updates data more continuously, location information is reported more precisely by CNDDDB.²¹

¹⁹ Op. Cit.

²⁰ Op. Cit.

²¹ California Native Plant Society, Preserving and Protecting California Native Plants and Their Habitats. Website: <http://www.cnps.org/cnps/about/>. Accessed December 10, 2015.

Birds of Prey

Birds of prey are also protected in California under provisions of the State Fish and Game Code Section 3503.5 (1992) which states that 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 regulations adopted pursuant thereto. Construction disturbances 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 Department of Fish and Wildlife

Special Status Species

“Special-status species” includes all species that are listed and receive specific protection defined in federal or state endangered species legislation, as well as species not formally listed as threatened or endangered, but designated as “rare” or “sensitive” on the basis of adopted policies and expertise of state resource agencies or organizations, or policies adopted by local agencies such as counties, cities, and special districts to meet local conservation objectives. The California Native Plant Society (CNPS) is an organization in California that assists with the regulation and protection of native plants. The CNPS keeps lists of plants that may not be endangered enough for listing with the CESA or ESA, but are nearing that point. CNPS listed species are not protected under ESA or CESA unless they are a listed species; however, the CFW requires a consultation if CNPS special status plants may be impacted by a Project.

Sensitive Species Significance Criteria

Whenever possible, public agencies are required to avoid or minimize environmental impacts by implementing practical alternatives or mitigation measures. As noted in the Biological Evaluation (see Appendix “B” of this DEIR), Section 15382 of the CEQA Guidelines defines a significant effect on the environment means 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 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, and 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.”²²

Furthermore, CEQA Guidelines Section 15065(a)(1) MANDATORY FINDINGS OF SIGNIFICANCE states that a project may trigger the requirement to prepare an EIR 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.”²³

CEQA Statute Section 21083.4. Counties; Conversion of Oak Woodlands; Mitigation Alternatives:

(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.”

(b) “ ...If 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...”

²² Ibid. 31.

²³ CEQA Guidelines Section 15065(a)(1)

Local Policy & Regulations

Tulare County General Plan Policies

“The preservation of sensitive habitats is a key goal of the General Plan 2030 Update, with ERM-1 Goal “To preserve and protect sensitive significant habitats, enhance biodiversity, and promote healthy ecosystems throughout the County.” The General Plan Update includes a number of policies in the Environmental Resources Management Element which support this goal. Key policies that are relevant to the proposed Project are listed as follows:²⁴

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.

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-1.4 Protect Riparian Areas - The County shall protect riparian areas through habitat preservation, designation as open space or recreational land uses, bank stabilization, and development controls.

ERM-1.6 Management of Wetlands - The County shall support the preservation and management of wetland and riparian plant communities for passive recreation, groundwater recharge, and wildlife habitats.

ERM-1.7 Planting of Native Vegetation - The County shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation and wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained.

ERM-1.12 Management of Oak Woodland Communities - The County shall support the conservation and management of oak woodland communities and their habitats.

ERM-1.16 Cooperate with Wildlife Agencies - The County shall cooperate with State and federal wildlife agencies to address linkages between habitat areas.

ERM-1.17 Conservation Plan Coordination - The County shall coordinate with local, State, and federal habitat conservation planning efforts (including Section 10 Habitat Conservation Plan) to protect critical habitat areas that support endangered species and other special-status species.

²⁴ Tulare County General Plan 2030 Update, Goals and Policies Report. Page 8-9.

ERM-2.7 Minimize Adverse Impacts - The County will minimize the adverse effects on environmental features such as water quality and quantity, air quality, flood plains, geophysical characteristics, biotic, archaeological, and aesthetic factors.

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 [Wildlife] or U.S. Fish and Wildlife Service?**

Project Impact Analysis:

Less Than Significant Impact With Mitigation

As noted earlier, four (4) special status species are known to occur in the vicinity of the proposed Matheny Tract Wastewater System Project (the action area). As shown in the CNDDDB results (Appendix “B”), the presence of Swainson’s hawk was indicated within 10 miles of the site in the last 10 years. Other raptors, such as white-tailed kite, red-tailed hawks, great-horned owls and barn owls are all known to forage and nest in the various areas throughout Tulare County, however, no evidence is available to suggest these species are within the vicinity of the Project site (for example, through CNDDDB information and existing uses; such as residential uses, commercial uses, roadways, etc., and the absence of trees for nesting).

Alternative 1 (On-Site Systems with a Septic Maintenance District) would essentially retain the status quo but results in replacing existing on-site systems that denitrify wastewater and thus result in no disturbance of any special status species habitat. Alternative 3 (standalone Matheny Tract Community Wastewater Treatment Facility, the only alternative that could result in potential impacts to special status species) will not be pursued as it is cost prohibitive; therefore, no impact would occur to special status species. Alternative 4 (the No Build Alternative), would retain the status quo thereby resulting in no impacts to special status species.

It is also noted that the biological accounting for the proposed Alternatives does not preclude the opportunity for special status species from accessing or traveling through the Alternative sites prior to or during post construction phases. There are records of special status species in the vicinity of the proposed Alternatives and while many of the occurrences may be historical in nature, there are opportunities for species to reoccur through the area.

Therefore, potential Project-Specific impacts would be ***Less Than Significant With Mitigation*** through the implementation of Mitigation Measures 3.4-1 through 3.4-8.

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 political boundaries.

The methodology used to analyze potential impacts on sensitive species in the Alternatives vicinity included the fact that areas where the wastewater collection system's pipes (four-inch lines for residences and six-inch lines for commercial uses) will be laid within Matheny Tract and the path of the Project's 8- to 12-inch main line (and likely one lift station) to the City of Tulare's 27-inch sewer trunk line at Avenue 216 (Paige Avenue) along Road 96 (Pratt Street) are permanently paved surfaces with no possibility of potential use as habitat. Following construction-related activities of the Project, the undergrounded pipes will be covered and the paved surfaces restored to their permanent surfaces. As such, based on the disturbed condition of the majority of the sites, reasonable inferences were made that it was unlikely that any of the sensitive species listed would actually occur onsite. However, this Project does not preclude the opportunity for special status species from accessing or traveling through the site prior or post construction phases. Historically, there have been records of special status species in the vicinity of the proposed Alternatives. Within the context of CEQA, potential impacts could result in significant impacts (especially in the event Alternative 3 (standalone Matheny Tract Community Wastewater Treatment Facility) is chosen), implementation of Mitigation Measures 3.4-1 through 3.4-7 would reduce potential impacts to ***Less Than Significant***.

The proposed Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. With the implementation of Mitigation Measures 3.4-1 through 3.4-7, cumulative impacts would also be reduced to a ***Less Than Significant Impact***.

Mitigation Measures: The following Mitigation Measures are an excerpt from the Plainview Wastewater System Environmental Impact Report's Biological Evaluation (also contained in Appendix "B") which analyzed sensitive plant, animal, and bird species similar to the Matheny Tract Project that would be implemented prior to and during construction-related activities of the Project.

Plant Species

- 3.4-1. Pre-Construction Special Status plant species survey.** No impacts to Special Status plant species are anticipated, however, as a measure to ensure that no species occur in these areas prior to construction, if either Alternatives 2 or 3 are selected, pre-construction surveys shall be required before construction. Surveys should be timed to coincide with flowering periods for species that could occur (March-May).

- 3.4-2.** *Minimization (Special Status Plant Species).* Because no impacts to Special Status plant species are anticipated, no minimization is required, but see Mitigation Measure 3.4-1 as well. If pre-construction surveys detect special status plant species, transplantation, project modification and/or compensation shall be employed.
- 3.4-3.** *Compensation (Special Status plant species).* No compensation is anticipated as part of the Alternatives. If Special Status plant species are detected during pre-construction surveys in the action areas or impact footprints, compensation for impacts shall be required to compensate for impacts.
- 3.4-4.** *Monitoring (Special Status plant species).* No monitoring is required. If pre-construction surveys detect plant species along the alignments/action areas, or impact footprints, but can be avoided, construction monitoring shall be required to ensure avoidance of those sensitive areas.

Animal Species

- 3.4-5.** *Avoidance (Special Status Animal Species).* Impacts to all kit fox dens, potential raptor nests and other animals located along the alignments shall be avoided.
- 3.4-6.** *Minimization (Special Status Animal Species).* “Minimization measures assume that some level of impact will occur (that some level of disturbance occurs). Under this approach, the Agency shall consult with DFW/USFWS. As the Agency initiates this process they can offer to perform the following measures as part of their permitting process with the agencies in order to help minimize impacts to the kit foxes, raptors and other species:
- Revegetate disturbed areas with trees and grass from on the site or adjacent areas;
 - Conduct employee education programs to inform workers about sensitive biological resources they may encounter and what they should do to minimize potential impacts.”²⁵
- 3.4-7.** *Monitoring (Special Status Animal Species).* “If pre-construction surveys detect listed or protected species along any of the project alternatives, while construction occurs, a biologist will need to be on-site to educate workers, monitor compliance, [ensure implementation of] best management practices and to identify and protect natural resources, including Special Status Species. The monitor will be responsible for ensuring that appropriate measures are taken to prevent disturbance of core avoidance areas. Any unauthorized take of Special Status species will be immediately reported to DFW by the monitor. The monitor

²⁵ Op. Cit.

will also notify the Project Coordinator who will stop work until corrective measures are implemented.

The designated Project Coordinator and the designated monitor for this Project will need to be established if Agency decides to pursue mitigation and monitoring.”²⁶

Conclusion:

Less Than Significant Impact With Mitigation

With implementation of the Mitigation Measures 3.4-1 through 3.4-7, no site specific or cumulative loss of habitat or direct impact to these special status animals would occur. Any Project-specific and cumulative impacts would be ***Less Than Significant Impact With Mitigation***

- 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 or US Fish and Wildlife Service?**

Project Impact Analysis:

No Impact

As indicated earlier, the Project will be developed within existing, utilized area (e.g., roads and shoulders) which are in a continuously disturbed state. There is no habitat whatsoever where any special status species may occur within or adjacent to the Project. Areas immediately adjacent to the Project area consist mostly of agriculturally productive farmland in all directions. Scattered rural residences are also present as well as two irrigation ditches/canals. The nearest waterways are two Tulare Irrigation District canals, Oakland Colony Ditch (which runs north to south along Canal Street in North Matheny Tract) and West Oakland Colony Canal (which is a diversion of Oakland Colony Ditch that runs along the northern boundary of South Matheny Tract then continues south, west of Pratt Avenue); neither of these facilities are naturally occurring and both are primarily used to convey seasonal water flows for agricultural irrigation. As such, there is no habitat of value for common or special status species. As it is not the County’s intent to pursue Alternative 3 (a standalone Matheny Tract Wastewater Collection and Treatment System), adjacent agriculturally productive lands or irrigation canals which could be used for foraging or as transit corridors by special status species near the community would not be impacted. Therefore, the project would result in a ***No Impact***.

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; and therefore, cumulative impacts would extend beyond Tulare County political boundaries.

²⁶ Op. Cit.

Potential impacts on sensitive species and their habitats, including riparian habitats, have been analyzed. As noted previously, database and literature searches which provided site-specific information related to biological resources indicated no presence of any special status species within areas which would be disturbed during construction-related activities of the Project. A summary of all state and federal natural resource protection laws that might be relevant to biological impacts of the proposed Project, within the context of CEQA, can be found in Appendix “B”.

The proposed Project would only contribute to cumulative impacts related to this Checklist Item if Project specific impacts to sensitive habitats were to occur. With implementation of Mitigation Measures 3.4-1 through 3.4-8, impacts would be less than significant. Therefore, the Project would result in a *No Cumulative Impact*.

Conclusion: *No Impact*

With implementation of the Mitigation Measures 3.4-1 through 3.4-7 no substantial adverse effect on any riparian habitat or other sensitive natural community would occur. Any impacts would be *Less Than Significant Impact With Mitigation*.

- 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*

As indicated in the CNDDDB search; there are no protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) within or near the Project. As such, the Project would have no substantial adverse effect on wetlands through direct removal, filling, hydrological interruption, or other means.

Therefore, implementation of Alternative 2, City of Tulare option (the Preferred Alternative), would result in *No Impact*.

Cumulative Impact Analysis: *No Cumulative Impact*

The geographic area of this cumulative analysis is the western U.S. While the study area is limited to Tulare County, federally protected wetlands exist in other portions of the U.S., and therefore, cumulative impacts would extend beyond County of Tulare political/jurisdictional boundaries.

As Alternative No. 2, City of Tulare option, is the Preferred Alternative, no wetlands would be impacted. As such, potential impacts are below the 0.1 threshold of impact to require mitigation. Also, even if Alternative 3, Matheny Wastewater Collection and Treatment option is implemented, no impacts to wetlands from potential construction-related activities would occur as wetlands are not present within or near the Project area. Therefore, if

Alternative 3, Matheny Wastewater Collection and Treatment option is implemented, the Project would result in No Impact. However, as Alternative 2, City of Tulare option, is considered “the Project”, implementation of Alternative No. 2 would result in ***No Impact***.

Mitigation Measures: ***None Required***

Conclusion: ***No Impact***

- 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 earlier, the Project will be developed within existing, utilized areas (e.g., roads and shoulders) which are in a continuously disturbed state. There is no habitat whatsoever where any special status species may occur within or adjacent to the Project. The site is absent of habitats that were once native to the San Joaquin Valley, and absent of areas of significant native habitat important to native wildlife species in the general site vicinity. As such, use of the Project Site as a “movement corridor” by native wildlife is not likely. “Wildlife movement corridors in the San Joaquin Valley are more typically associated with natural drainages (rivers and creeks) having significant riparian vegetation along the channel banks. Alternatively, wildlife movement corridors may link important habitat patches of similar values for similar assemblages of species.”²⁷ The Project site fits neither criterion. Therefore, ***No 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. 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; and therefore, cumulative impacts will extend beyond County of Tulare political/jurisdictional boundaries.

Potential impacts on habitats for sensitive species, including riparian and wildlife corridors were analyzed. Reconnaissance-level field surveys were conducted and several database and literature searches that provide site-specific information related to existing biological resources were examined.

Because the proposed actions would consist of underground pipelines and limited development, it is not anticipated to obstruct wildlife movement more than temporarily, or not at all. As such, cumulative impacts would be ***Less Than Significant***.

²⁷ Biotic Evaluation, Live Oak Associates, Inc., Derrel’s Mini Storage, Tulare County, California. Page 23. Appendix “B” of the Draft Environmental Impact Report Derrel’s Mini Storage Project (SCH No. 2014121067) certified and adopted by the Tulare County Planning Commission May 27, 2015.

Mitigation Measures: *None Required*

Conclusion: *Less Than Significant Impact*

Because the proposed Project would not result in harmful effects on regional fish or wildlife movements, any impacts would be *Less Than Significant*.

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 would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinances. No County ordinances protect the types of biological resources found on areas where the Project would occur. IN the unlikely event that Special Status species are encountered, the County would consults with Cal Fish & Wildlife, USFWS or any other agencies on potential impacts to Special Status Species. As such, Alternative 2, (the Preferred Alternative), would not conflict with Tulare County General Plan policies or natural resource protection ordinances. Therefore, the Project would result in *No Impact* to this resource.

Cumulative Impact Analysis: *Less Than Significant Impact*

The geographic area of this cumulative analysis is Tulare County.

Local policies relating to impacts on biological resources have been summarized earlier. There are no impacts to any local policies or ordinances protecting biological resources, therefore, any cumulative impact would be *Less Than Significant*.

Mitigation Measures: *None Required*

Conclusion: *Less than Significant Impact*

As the Project would result in *No Project-related Impact and Less Than Significant Cumulative Impacts*, no mitigation measures are required.

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*

There are two habitat conservation plans that could apply in Tulare County. The Kern Water Habitat Conservation Plan only applies to an area in Allensworth; therefore, the Project site

is not subject to this plan. The Recovery Plan for Upland Species in the San Joaquin Valley outlines a number of species that are important to the San Joaquin Valley. None of these species were identified within the impact areas of the Project. As such, no Project-specific impacts related to this impact area would occur. Further, the proposed Project would not conflict with any approved habitat conservation plans, natural community conservation plans, or regional or state habitat conservation plans. Therefore, the proposed Project would have ***No Impact***.

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

The geographic area of this cumulative analysis is California. A summary of state, regional and local habitat conservation plans was included in the “Regulatory Setting” section, above.

There are no adopted Habitat Conservation Plans which apply to the Project site and its immediate vicinity. Therefore, there would be ***No Cumulative Impact*** because the proposed Project site is not subject to an HCP or other local, regional or state habitat conservation plan.

Conclusion: ***No Impact***

There are ***No Project-related or Cumulative Impacts***; therefore, no mitigation measures are required.

REFERENCES

“Derrel’s Mini Storage Project: Biotic Evaluation, Tulare County, California” prepared by Live Oaks Associates, Inc., September 11, 2014 and included as Appendix “B” of the Draft Environmental Impact Report Derrel’s Mini Storage Project (SCH No. 2014121067) certified and adopted by the Tulare County Planning Commission May 27, 2015

Tulare County General Plan 2030 Update, Background Report, February 2010

Tulare County General Plan 2030 Update and Final EIR adopted by the Board of Supervisors, August 28, 2012, Resolution No. 2012-0699

“Reconnaissance-Level Biological Evaluation of Potential Impacts to Sensitive and Listed Species for Three Proposed Plainview Wastewater System Alternatives, Tulare County, California”, Kamansky’s Ecological Consulting, 2014 [included herein as Appendix “B”]

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California Department of Fish & Wildlife. Websites: Species of Special Concern which was accessed May 23, 2017 at: <https://www.wildlife.ca.gov/Conservation/SSC> and Fully Protected Animals: which was accessed at: http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html.

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California Native Plant Society. Websites:

Preserving and Protecting California Native Plants and Their Habitats which was accessed at: <http://www.cnps.org/cnps/about/> and Rare Plant Program which was accessed at: <http://www.cnps.org/cnps/rareplants/>.

U.S. Fish and Wildlife Service. Endangered Species Glossary. Which was accessed at: <http://www.fws.gov/nc-es/es/glossary.pdf>. Accessed May 23, 2017.

U.S. Fish and Wildlife Service Standardized Recommendations for Protecting of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance, which was accessed at: http://www.fws.gov/sacramento/es/Survey-Protocols-Guidelines/Documents/kitfox_standard_rec_2011.pdf

USFWS San Joaquin Kit Fox Recovery Plan, [Recovery Plan for Upland Species of the San Joaquin Valley, California](#), September 30, 1998. California State University Stanislaus which was accessed May 23, 2017 at: <http://esrp.csustan.edu/publications/pubhtml.php?doc=sjvrp&file=cover.html>.

Provost & Pritchard Consulting Group, *Project Feasibility Report, Matheny Tract Wastewater System, Tulare County, California 2016.*

Chapter 3.5

Cultural Resources

SUMMARY OF FINDINGS

The Preferred/Proposed Project would result in impacts to Cultural Resources that are ***Less Than Significant With Mitigation Measures***. Information provided by Southern San Valley Historical Resources Information Center, at California State University, Bakersfield (Center) and the California Native American Heritage Commission Sacred Lands File search (see Appendix “C” of this document) were used as the basis for determining that this Project would result in a less than significant impact with mitigation incorporated. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 2, City of Tulare option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”.

INTRODUCTION

California Environmental Quality Act (CEQA) Requirements

Several CEQA statutes and guidelines address requirements for cultural resources, including historic and archaeological resources.¹ 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 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 DEIR for the Project meets the CEQA requirements by addressing potential impacts to cultural resources on the Project site. The “Environmental Setting” section provides a description of cultural resources in the region, with special emphasis on the Project site and

¹ “CEQA and Historical Resources” CEQA Technical Advice Series, <http://ceres.ca.gov/ceqa/more/tas/page3.html>

vicinity. The “Regulatory Setting” section provides a description of applicable State and local regulatory policies. Results from CHRIS results 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, if necessary.

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.”²

ENVIRONMENTAL SETTING

Cultural Background

“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.”³

“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.”⁴

“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.”⁵

Tulare County’s Documented Cultural 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. These resources are available to the general public. They have been summarized in the Tulare County General Plan Update 2030 Background Report (2010).⁶

² CEQA Guidelines, Section 15064.5 (b)

³ Tulare County 2030 General Plan. Page 8-5.

⁴ Tulare County 2030 General Plan. Page 8-5.

⁵ Ibid. Page 8-6.

⁶ Tulare County General Plan Background Report. Pages 9-57 to 9-59.

The Southern San Joaquin Valley Historical Resources Information Center, at California State University, Bakersfield (Center) conducted a search for the Matheny Tract project as requested by Tulare County RMA. In summary, the Center's search response letter indicated that only one recorded resource (P-54-003608, the Tulare Irrigation Canal) is located within a one-half mile radius of the Project; and that the NAHC should also be contacted regarding cultural resources that may not be included in the CHRIS inventory (see later dated January 19, 2017, in Appendix "C"). Consistent with the Center's recommendation, Tulare County RMA also requested a Sacred Lands File (SLF) search from the California Native American Heritage Commission (NAHC). The NAHC provided a letter dated January 10, 2017 showing "negative" results which indicates there are no documented Sacred Lands within the Project area (see letter dated January 10, 2017; also in Appendix "C").

REGULATORY SETTING

Federal Agencies & Regulations

The National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) established federal regulations for the purpose of protecting significant cultural resources. The legislation established the 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. The NHPA also established requirements federal agencies to consider the effects of proposed federal projects on historic properties (Section 106, NHPA). Federal agencies and recipients of federal funding are required to initiate consultation with the State Historic Preservation Officer (SHPO) as part of the Section 106 review process.⁷

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.⁸

⁷ Advisory Council on Historic Preservation, National Historic Preservation Program: Overview website: <http://www.achp.gov/overview.html> and National Register Evaluation Criteria website: <http://www.achp.gov/nrcriteria.html>. Accessed June 15, 2017.

⁸ Advisory Council on Historic Preservation, State Historic Preservation Officers, <http://www.achp.gov/shpo.html>. Accessed June 15, 2017.

Among OHP's responsibilities are to identify, evaluate, and register 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 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 California State University Bakersfield, CA. The Center provides information on known historic and cultural resources to governments, institutions and individuals.⁹

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.¹⁰

CEQA Guidelines: Historical Resources Definition

CEQA Guidelines Section 15064.5(a) defines a historical resource as:

“(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 Section 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

⁹ California State Parks, Office of Historic Preservation, *Mission and Responsibilities website*: http://ohp.parks.ca.gov/?page_id=1066. Accessed June 15, 2017.

¹⁰ California State Parks, Office of Historic Preservation, *California Register: Criteria for Designation*, http://www.ohp.parks.ca.gov/?page_id=21238. Accessed June 15, 2017.

the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code Section 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.”¹¹

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, 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.

¹¹ CEQA Guidelines Section 15064.5(d)

- (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.”¹²

CEQA Guidelines: Human Remains

Section 15064.5 of CEQA Guidelines provides specific guidance on the treatment of human remains pursuant to Public Resources Code § 5097.98, which provides specific 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.”¹³

“(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

- (B) If the coroner determines the remains to be Native American:

1. The coroner shall contact the Native American Heritage Commission within 24 hours.

¹² CEQA Guidelines Section 15064.5(c)

¹³ CEQA Guidelines, Section 15064.5(d)

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.”¹⁴
- (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.”¹⁵

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.”¹⁶

¹⁴ CEQA Guidelines Section 15064.5(e)

¹⁵ CEQA Guidelines Section 15064.5(f)

¹⁶ Public Resources Code 5097.5(a)

Tribal Consultation Requirements: SB 18 (Burton, 2004)¹⁷

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.¹⁸

As this Project is not 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); Tribal Consultation for SB 18 compliance is not required.

Tribal Consultation Requirements: AB 52 (Gatto, 2014)¹⁹

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 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.

Existing law establishes the NAHC and vests the commission with specified powers and duties. This bill required the NAHC to provide each California Native American tribe, as defined, on or before July 1, 2016, with a list of all public agencies that may be a lead agency within the geographic area in which the tribe is traditionally and culturally affiliated, the contact information of those agencies, and information on how the tribe may request those public

¹⁷ Senate Bill No. 18, Chapter 905, http://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=200320040SB18, accessed June 15, 2017.

¹⁸ Government Code §65352.3

¹⁹ Assembly Bill No. 52 Chapter 532, http://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB52, accessed June 15, 2017.

agencies to notify the tribe of projects within the jurisdiction of those public agencies for the purposes of requesting consultation.

The NAHC provides protection to Native American burials from vandalism and inadvertent destruction, provides a procedure for the notification of most likely descendants regarding the discovery of Native American human remains and associated grave goods, brings legal action to prevent severe and irreparable damage to sacred shrines, ceremonial sites, sanctified cemeteries and place of worship on public property, and maintain an inventory of sacred places.²⁰

Upon written request, the NAHC is required to conduct a Sacred Lands File search for sites located on or near a project site. As discussed in further detail in Chapter 3.17 Tribal Cultural Resources, a Sacred Lands File check indicated negative results (that is, no Sacred Lands were identified) for the Project location (See Appendix “C” of the DEIR at NAHC Sacred Lands File search letter dated January 10, 2017). Also discussed in further detail in Chapter 3.17, an opportunity has been provided to Native American tribes listed by the Native American Heritage Commission during the CEQA process as required by AB 52, and no tribes responded to the consultation requests within the mandatory response time-frames; therefore, this DEIR has been completed consistent and compliant with AB 52 (see Appendix “C” of the DEIR regarding Tribal consultation process).

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 apply to the proposed Project are listed as follows:

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

²⁰ Native American Heritage Commission, About the Native American Heritage Commission, <http://www.nahc.ca.gov/about/>, accessed June 15, 2017.

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.

PFS-3.4 Alternative Rural Wastewater Systems - The County shall consider alternative rural wastewater systems for areas outside of community UDBs and HDBs that do not have current systems or system capacity. For individual users, such systems include elevated leach fields, sand filtration systems, evapotranspiration beds, osmosis units, and holding tanks. For larger generators or groups of users, alternative systems, including communal septic tank/leach field systems, package treatment plants, lagoon systems, and land treatment, can be considered.

IMPACT EVALUATION

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

Project Impact Analysis:

Less Than Significant Impact With Mitigation

The Project activity would be located within existing road rights-of-way. A search conducted by the Southern San Valley Historical Resources Information Center, at California State University, Bakersfield (Center) in the California Historic Resources Information System (CHRIS) indicated that there are no recorded cultural resources within the project area and one recorded resource within a one-half mile radius (P-54-003608, the Tulare Irrigation Canal). 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. As noted earlier, the CHRIS search results are included in Appendix “C” of this DEIR.

Consistent with the requirements of AB 52, Tulare County requested a records search by the California Native American Heritage Commission (NAHC) of its Sacred Lands File (SLF). The NAHC provided the results of its SLF search (see letter dated January 10, 2017, contained in Appendix “C” of this DEIR) indicating “negative results” (that is, no sacred lands are known to be located in the Project area). The Sacred Lands File Search and Native American tribal consultation that was conducted revealed no existing sacred sites or traditional cultural properties in the vicinity of the Project.

However, there is a possibility that subsurface resources could be uncovered during construction-related activities. In such an event, potentially significant impacts to previously

unknown subsurface resources may occur. With the implementation of **Mitigation Measure 3.5-1**, the Project-specific impacts would 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.

The Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. With implementation of **Mitigation Measure 3.5-1**, potential Project-specific impacts would be reduced to less than significant levels. Therefore, the Project's cumulative impacts would be *Less Than Significant With Mitigation*.

Mitigation Measure(s):

3.5-1 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 specialists shall 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.

Conclusion: *Less Than Significant Impact With Mitigation*

With implementation of the **Mitigation Measure 3.5-1**, potential Project-specific and cumulative impacts related to this Checklist Item would be reduced to *Less Than Significant* levels.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

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

The Project activity would be located within existing road rights-of-way. The CHRIS and NAHC/SLF searches cultural resources survey report did not identify any archaeological (or cultural) resources. Additionally, the Project site has no natural streams, rivers, or geologic features on or near the site which may suggest the presence of archaeological resources. However unlikely, as the pipeline, lift station(s), and lateral connections will be located within existing rights-of-way, there is a possibility that subsurface resources could be uncovered during construction-related activities. In such an event, potentially significant impacts to previously unknown subsurface resources may occur. With the implementation of

Mitigation Measure 3.5-1, the Project-specific impacts would 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.

The Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. With implementation of **Mitigation Measure 3.5-1**, potential Project-specific impacts would be reduced to less than significant levels. Therefore, the Project's cumulative impacts would be *Less Than Significant With Mitigation*.

Mitigation Measures: **See Mitigation Measure 3.5-1.**

Conclusion: *Less Than Significant Impact With Mitigation*

With implementation of the **Mitigation Measure 3.5-1**, Project-specific and cumulative impacts related to this Checklist Item would be reduced to *Less Than Significant*.

c) **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

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

The Project activity would be located within existing road rights-of-way. The CHRIS and NAHC/SLF searches did not identify any paleontological (or cultural) resources. Additionally, no paleontological resources or sites, or unique geologic features have previously been encountered in the Project area. However unlikely, as the pipeline, lift station(s), and lateral connections will be located within existing rights-of-way, there is a possibility that subsurface resources could be uncovered during construction-related activities. In such an event, potentially significant impacts to previously unknown subsurface resources may occur. With the implementation of **Mitigation Measure 3.5-2**, Project-specific impacts would be *Less Than Significant*.

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

The geographic area of this cumulative analysis is Tulare County. The Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. With implementation of **Mitigation Measure 3.5-2**, potential Project-specific impacts would be reduced to less than significant levels. Therefore, the Project's cumulative impacts would be *Less Than Significant With Mitigation*.

Mitigation Measure(s):

- 3.5-2** **The project proponent shall avoid and minimize impacts to paleontological resources. If a potentially significant paleontological resource is encountered during ground disturbing activities, all construction within a 100-foot radius of the find shall immediately cease until a qualified paleontologist determines whether the resources requires further study. The project proponent shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The paleontologist shall notify the Tulare County Resource Management Agency and the project proponent of the procedures that must be followed before construction is allowed to resume at the location of the find. If the find is determined to be significant and the Tulare County Resource Management Agency determines avoidance is not feasible, the paleontologist shall design and implement a data recovery plan consistent with applicable standards. The plan shall be submitted to the Tulare County Resource Management Agency for review and approval. Upon approval, the plan shall be incorporated into the project.**

Conclusion:

Less Than Significant Impact With Mitigation

With implementation of **Mitigation Measure 3.5-2**, Projects-specific and cumulative impacts related to this Checklist Item would be reduced to ***Less Than Significant***.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Project Impact Analysis:

Less Than Significant Impact With Mitigation

The Project activity would be located within existing road rights-of-way. The CHRIS, NAHC/SLF searches, and consultation with Native American tribes did not identify any known remains or formal cemeteries. However unlikely, as the pipeline, lift station(s), and lateral connections will be located within existing rights-of-way, there is a possibility that subsurface resources could be uncovered during construction-related activities. In such an event, potentially significant impacts to previously unknown subsurface resources may occur. With the implementation of **Mitigation Measure 3.5-3**, the Project-specific impacts would be ***Less Than Significant***.

Cumulative Impact Analysis:

Less Than Significant Impact With Mitigation

The geographic area of this cumulative analysis is Tulare County.

The Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. With implementation of **Mitigation Measure 3.5-3**, potential Project-specific impacts would be reduced to less than significant levels. Therefore, the Project's cumulative impacts would be ***Less Than Significant With Mitigation***.

Mitigation Measure(s):

3.5-3 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 [that is, unanticipated] 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/her 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 With Mitigation

With implementation of the **Mitigation Measure 3.5-3**, Project-specific and cumulative impacts related to this Checklist Item would be reduced to ***Less Than Significant***.

DEFINITIONS

Definitions

California Historical Landmarks – The Office of Historic Preservation defines California Historical Landmarks as “buildings, structures, sites, or places that have been determined to have statewide historical significance by meeting at least one of the criteria listed below:

- The first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California).
- Associated with an individual or group having a profound influence on the history of California.
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer or master builder.”²¹

California Historical Resources Information System (CHRIS) - The CHRIS consists of the Office of Historic Preservation (OHP), the nine Information Centers (ICs), and the State Historical Resources Commission (SHRC). The OHP administers and coordinates the CHRIS and presents proposed CHRIS policies to the SHRC, which approves these policies in public meetings. The CHRIS Inventory includes the State Historic Resources Inventory maintained by the OHP as defined in California Public Resources Code § 5020.1(p), and the larger number of resource records and research reports managed under contract by the nine ICs. Different parts of the CHRIS Inventory are a combination of paper documents and maps and digital files (whether submitted digitally or converted to that format by the CHRIS). The collective information managed electronically in the CHRIS Inventory is generally referred to as the CHRIS Database.²²

California Register – “The State Historical Resources Commission has designed this program for use by state and local agencies, private groups and citizens to identify, evaluate, register and protect California's historical resources. The Register is the authoritative guide to the state's significant historical and archeological resources. The California Register program encourages public recognition and protection of resources of architectural, historical, archeological and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for state historic preservation grant funding and affords certain protections under the California Environmental Quality Act.”²³

Historical Resources – As defined in CEQA Guidelines §15064.5(a); see the “CEQA Guidelines: Historical Resources Definition” section of this DEIR. The Office of Historic Preservation defines historical resources as “buildings, structures, objects, historic and archeological sites, landscapes, districts, and all manner of properties associated with past human activities.”²⁴

²¹ Office of Historic Preservation. California Historical Landmarks website http://ohp.parks.ca.gov/?page_id=21387 accessed June 15, 2017.

²² Office of Historic Preservation. About the CHRIS website http://ohp.parks.ca.gov/?page_id=1068 accessed June 15, 2017.

²³ Office of Historic Preservation. About the CHRIS website http://www.ohp.parks.ca.gov/?page_id=21238 accessed June 15, 2017.

²⁴ Office of Historic Preservation. About the CHRIS Inventory website http://ohp.parks.ca.gov/?page_id=28063 accessed June 15, 2017.

Abbreviations and Acronyms

CEQA	California Environmental Quality Act
CHRIS	California Historical Resources Information System
CRHR	California Register of Historical Resources
DEIR	Draft Environmental Impact Report
HABS/HAER	Historic American Building Survey/Historic American Engineering Record
HRI	Historical Resources Inventory database
NHPA	National Historic Preservation Act of 1966
OHP	Office of Historic Preservation
SHPO	State Historic Preservation Office

REFERENCES

CEQA & Historical Resources, *CEQA Technical Advice Series*, which was accessed at: <http://ceres.ca.gov/ceqa/more/tas/page3.html>

CEQA Guidelines 15064.5

California Public Resources Code Section 21084.1

Tulare County General Plan 2030 Update Recirculated Draft EIR (SCH # 2006041162).

Advisory Council on Historic Preservation, which were accessed June 15, 2017 at:

National Historic Preservation Program: Overview: <http://www.achp.gov/overview.html>.

National Register Evaluation Criteria: <http://www.achp.gov/nrcriteria.html>.

State Historic Preservation Officers: <http://www.achp.gov/shpo.html>.

California State Parks, Office of Historic Preservation, which were accessed at:

About the CHRIS: http://ohp.parks.ca.gov/?page_id=1068.

About the CHRIS Inventory: http://ohp.parks.ca.gov/?page_id=28063.

California Historical Landmarks: http://ohp.parks.ca.gov/?page_id=21387.

California Register: http://www.ohp.parks.ca.gov/?page_id=21238.

Mission and Responsibilities: http://ohp.parks.ca.gov/?page_id=1066

Provost & Pritchard Consulting Group, *Project Feasibility Report, Matheny Tract Wastewater System, Tulare County, California 2016*.

Chapter 3.6

Geology and Soils

SUMMARY OF FINDINGS

The Preferred/Proposed Project would result in *Less Than Significant Impacts* related to Geology and Soils, and therefore, no mitigation measures are required. The *Project Feasibility Report, Matheny Tract Wastewater System, Tulare County, California 2016*. (Feasibility Report or Report, Appendix “D” of this DEIR) contains a discussion of soil characteristics with the Report and it also contains a Natural Resources Conservation Service (NRCS) Soils Map and Description (as Appendix “B” of the Feasibility Report) that describes the soil type(s) within the affected areas of the Matheny Tract Project. The impact analyses and determinations in this chapter are based upon information obtained from the References listed at the end of this chapter. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 2, City of Tulare option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project.” A detailed review of potential impacts is provided in the analysis below.

INTRODUCTION

CEQA Guidelines Requirements for Evaluation of Impacts to Geology and Soils

This section of the Draft Environmental Impact Report (DEIR) addresses potential impacts to Geology and Soils. As required in Guidelines Section 15126, all phases of the Project would be considered as part of the potential environmental impact.

As noted in Guidelines 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 may 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.”¹

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.

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).”²*

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.”³*

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.”⁴*

¹ CEQA Guidelines Section 15126.2

² Tulare County General Plan 2030 Update, Appendix B General Plan Background Report. Page 8-2.

³ Ibid.

⁴ Ibid.

CEQA THRESHOLDS OF SIGNIFICANCE

The thresholds of significance for this section are established by the CEQA Checklist item questions. The following are potential thresholds of significance:

- Whether the project is located on a fault line
- Whether the project will create a hazard to people or property
- If the project site subject to landslides
- IF the project site is located on a liquefaction zone

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.”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.”⁶

“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.”⁷

⁵ Tulare County General Plan 2030 Update, *Appendix B General Plan Background Report*. Page 8-5.

⁶ Ibid.

⁷ Op. Cit.

“Settlement can occur in poorly consolidated soils during ground-shaking. 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 ground-shaking 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.”⁸

“Liquefaction is a process whereby soil is temporarily transformed to a fluid form during intense and prolonged ground-shaking. 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.”⁹

Earthquake Hazards

“Ground-shaking 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 ground-shaking, 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 ground-shaking over longer periods of time, thereby affecting a larger area. Ground-shaking 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 ground-shaking intensities than areas located on hard rock. Therefore, structures located in the valley will tend to suffer greater damage from ground-shaking 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.”¹⁰

⁸ Op. Cit. 8-9.

⁹ Op. Cit.

¹⁰ Op. Cit.

“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** is located approximately 40 miles west of the Tulare County boundary and [approximately] 60 miles west of the project area. 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 of Tulare County lays the “Central California Active Area,” section of the San Andreas Fault where many earthquakes have originated.
- **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 approximately [approximately] 60 miles east of the project area. The Group is located within Tulare and Inyo Counties and has historically been the source of seismic activity within Tulare County.
- **Clovis Fault** is considered to be active within the Quaternary Period, 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 and [approximately] 70 miles north of the project area. 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.

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There are other unnamed faults north of Bakersfield and near Tulare Buttes about 30 miles north of Porterville. These faults are small and have exhibited activity in the last 1.6 million years, but not in the last 200 years. It is also possible, but unlikely, that previously unknown faults could become active in the area.¹² No Alquist-Priolo Earthquake Fault Zones or known active faults are in or near the Project area.¹³

Soils and Liquefaction

“The San Joaquin Valley portion of Tulare County is located on alluvial deposits, which tend to experience greater ground-shaking intensities than areas located on hard rock. Therefore, structures located in the valley will tend to suffer greater damage from ground-shaking 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

¹¹ Op. Cit. 3.7-5; and *Tulare County, Revised Draft General Plan 2030 Update*, August 2012. Page 10-7.

¹² *Tulare County, Revised Draft General Plan 2030 Update*, August 2012. Page 10-15.

¹³ California Geological Survey, <http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm>

geologic characteristics of an area can therefore be a greater hazard than its distance to the epicenter of the quake.”¹⁴

“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.”¹⁵

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,
- Topography (amount of slope in combination with gravitation forces).”¹⁶

REGULATORY SETTING

Federal Agencies & Regulations

None that apply to the Project.

State Agencies & Regulations

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.”¹⁷

¹⁴ Ibid. 8-7.

¹⁵ Op. Cit. 8-9.

¹⁶ Op. Cit. 8-10.

¹⁷ Op. Cit. 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.”¹⁸

State Water Resources Control Board and Regional Water Quality Control Board

National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity- Water Quality Order 99-08 DWQ.

Typically, General Construction Storm Water NPDES permits are issued by the RWQCB for grading and earth-moving activities. The General Permit is required for construction activities that disturb one or more acres. The General Permit requires development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which specifies practices that include prevention of all construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving off site into receiving waters. The NPDES permits are issued for a five-year term. NPDES general permits require adherence to the Best Management Practices (BMPs) including:

- Site Planning Consideration- such as preservation of existing vegetation.
- Vegetation Stabilization- through methods such as seeding and planting.
- Physical Stabilization- through use of dust control and stabilization measures.
- Diversion of Runoff – by utilizing earth dikes and temporary drains and swales.
- Velocity Reduction – through measures such as slope roughening/terracing.
- Sediment Trapping/Filtering – through use of silt fences, straw bale and sand bag filters, and sediment traps and basins.

Local Policies & 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.

HS-1.2 Development Constraints - The County shall permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.

¹⁸ Op. Cit.

HS-1.3 Hazardous Lands - The County shall designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.

HS-1.5 Hazard Awareness and Public Education - The County shall continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.

HS-1.11 Site Investigations - The County shall conduct site investigations in areas planned for new development to determine susceptibility to landslides, subsidence/settlement, contamination, and/or flooding.

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 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.

WR-2.2 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 - 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.

IMPACT EVALUATION

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.**

There are no known active earthquake faults within the Project area. There are, however, 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 is located approximately 40 miles west of the Tulare County boundary and 50 miles west of the Project area. 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 of Tulare County lays the “Central California Active Area,” section of the San Andreas Fault where many earthquakes have originated.
- 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 approximately 70 miles east of the Project area. The Group is located within Tulare and Inyo Counties and has historically been the source of seismic activity within Tulare County.
- Clovis Fault is considered to be active within the Quaternary Period, 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 and approximately 70 mile north of the project area. 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.¹⁹²⁰

There are other unnamed faults north of Bakersfield and near Tulare Buttes about 30 miles north of Porterville. These faults are small and have exhibited activity in the last 1.6 million years, but not in the last 200 years. It is also possible, but unlikely, that

¹⁹ Ibid. 3.7-5.

²⁰ Tulare County, Revised Draft General Plan 2030 Update, August 2012. Page 10-7.

previously unknown faults could become active in the area. No Alquist-Priolo Earthquake Fault Zones or known active faults are in or near the Project area. Therefore, Project-specific impacts would be ***Less Than Significant***.

i) Strong seismic ground shaking?

Ground shaking 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 ground shaking, which is directly related to the magnitude of a specific 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 ground shaking over longer periods of time, thereby affecting a larger area. Ground shaking intensity, which is often a more useful measure of earthquake effects than magnitude, is a qualitative measure of the effects felt by the population.

The common way to describe ground motion during an earthquake is with the motion parameters of acceleration and velocity in addition to the duration of the shaking. A common measure of ground motion is the peak ground acceleration (PGA), which is the largest value of horizontal acceleration obtained from a seismograph. PGA is expressed as the percentage of the acceleration due to gravity (g), which is approximately 980 centimeters per second squared. The Project is located in an area that may experience 10 to 20%.

The Project area is located in a seismic zone which is sufficiently far from known faults and consists primarily of a stable geological formation. Project-specific hazards due to ground shaking would be ***Less Than Significant***.

iii) Seismic-related ground failure, including liquefaction?

Liquefaction is a process whereby soil is temporarily transformed to a fluid form during intense and prolonged ground shaking. 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 0.3 g 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. If liquefaction occurs in or under a sloping soil mass, the entire mass may flow toward a lower elevation. Also of particular concern in terms of developed and newly developing areas are fill areas that have been poorly compacted.

No specific county-wide 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 San Joaquin Valley portion of the County. However, soil

types in the area are not conducive to liquefaction because they are either too coarse or too high in clay content.²¹

As the Project area is sufficiently far from known faults and consists primarily of a stable geological formation, it is unlikely to be subject to seismically-induced liquefaction. As such, Project-specific effects would result in a ***Less Than Significant Impact***.

iv) Landslides?

Landslides are a geologic hazard 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,
- Topography (amount of slope in combination with gravitation forces).

Tulare County has three geologic environments: the valley, foothills, and mountains. The range in topography between these three areas presents a range of landslide hazards. As of June 2009, the California Geological Survey had not developed landslide hazard identification maps for Tulare County. However, it is reasonable to assume that certain areas in Tulare County are more prone to landslides than others. Such areas can be found in foothill and mountain areas where fractured and steep slopes are present (as in the Sierra Nevada Mountains), where less consolidated or weathered soils overlie bedrock, or where inadequate ground cover accelerates erosion. Additionally, development grading operations can create unstable slopes due to cut and fill activities.

There is the potential for small slides and slumping along the steep banks of rivers or creeks; in particular along the Kaweah, Kings, and Tule River bluffs. However, as the Project area is not near any of these areas and is situated on relatively flat topography, there is no risk of landslides within or near the Project area.

The Project is unlikely to be subject to landslides. Therefore, Project-specific impacts would result in a ***No Impact***.

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

The existing area of the Project is not located within a published Earthquake Fault Zone and the potential for ground rupture is low. As earthquakes are possible throughout the State of California, the Project would be required to comply with the Tulare County General Plan and Zone II of the Uniform Building Code. In addition, the Project area is not located within an area mapped to have a potential for soil liquefaction. As the Project area is relatively flat, there is no potential for landslides. Therefore, the Project would result in a ***Less Than Significant Project-Specific Impact*** related to this Checklist Item.

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

²¹Tulare County, 2030 General Plan Update, Recirculated Draft Environmental Impact Report, February 2010. Page 3.7-7.

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 Tulare County 2030 General Plan EIR.

The Project would not increase geotechnical related impacts off-site. The Project would result in ***Less Than Significant Cumulative Impact*** related to this Checklist Item.

Mitigation Measure(s): ***None Required***

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

As noted earlier, the Project-specific impacts would result in a ***Less Than Significant Impact***. Therefore, the Project would result in ***No Cumulative Impact***.

b) Result in substantial soil erosion or the loss of topsoil?

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

The Project's pipeline footprint is entirely over Copien loam soil with 0 to 2 percent slopes. The Copien loam has moderately well drained soil resulting in rare frequency of flooding and ponding.

While impacts are anticipated to be less than significant, the Clean Water Act (CWA) and the Central Valley Regional Water Quality Control Board (CVRWQCB) require a Stormwater Pollution Prevention Plan (SWPPP) to be developed by a qualified engineer or erosion control specialist and implemented before construction begins. The SWPPP would be kept on site during construction activity and would be made available upon request to representatives of the CVRWQCB. The objectives of the SWPPP would be to identify pollutant sources that may affect the quality of stormwater associated with construction activity and to identify, construct, and implement stormwater pollution prevention measures to reduce pollutants in stormwater discharges during and after construction. To meet these objectives, the SWPPP would include a description of potential pollutants, a description of methods of management for dredged sediments, and hazardous materials present on site during construction (including vehicle and equipment fuels). The SWPPP would also include details for best management practices (BMPs) for the implementation of sediment and erosion control practices. Implementation of the SWPPP would comply with state and federal water quality regulations and would reduce this impact to a less-than-significant level. Compliance with local grading and erosion control ordinances would also help minimize adverse effects associated with erosion and sedimentation. Any stockpiled soils would be watered and/or covered to prevent loss due to wind erosion as part of the SWPPP during construction and reclamation. As a result of these efforts, loss of topsoil and substantial soil erosion during the construction and

reclamation periods are not anticipated. Therefore, Project-specific impacts 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/or the Tulare County 2030 General Plan EIR.

As discussed under Item b), above, the Project shall comply with state and federal laws which require that a SWPPP be prepared and implemented to ensure impacts are Less Than Significant. With implementation of a SWPPP, the Project would result in ***No Cumulative Impact*** related to this Checklist Item.

The Project would not result in significant impacts with implementation of a SWPPP. Therefore, cumulative impacts would result in a ***Less Than Significant Impact***.

Mitigation Measure(s): ***None Required***

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

As noted earlier, Project-specific and cumulative impacts related to this Checklist Item would result in a ***Less Than Significant Impact***.

- 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 unlikely to be subject to 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 foothill and mountain areas of the County are more likely to experience landslides than the Valley floor. Susceptible areas include areas where fractured and steep slopes are present or where inadequate ground cover accelerates erosion. Erosion and ground slumping of soils can also occur along bluff and banks of the Kaweah, Kings, and Tule Rivers. The probability of soil liquefaction actually taking place in the County is considered to be a low-to-moderate hazard. Soil types in the area are not conducive to liquefaction because they are either too coarse or too high in clay content. However, due to the high clay content, there is potential for some subsidence to occur. Impacts related to these types of geological hazards are site specific and need to be evaluated on a site by site basis.²²

²² Tulare County, 2030 General Plan Update, Recirculated Draft Environmental Impact Report, February 2010. Page 3.7-22.

With adherence to all applicable State and local building codes and regulations and implementation of the policies contained in the draft Health and Safety Element, impacts associated with on- or off-site landslide, subsidence, liquefaction, or collapse would be minimized. Subsequently, with implementation of the required policies noted below, Project-specific impacts would be ***Less Than Significant***.²³

As noted earlier, Tulare County General Plan Policies designed to minimize geologic hazard impacts to people and structures in the County include the following:

- HS-1.2 Development Constraints
- HS-1.3 Hazardous Lands
- HS-1.5 Hazard Awareness and Public Education
- HS-1.11 Site Investigations

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/or Tulare County 2030 General Plan EIR.

The Project would have a minor impact on soil compaction. As a result, the Project would result in a ***Less Than Significant Cumulative Impact***.

Mitigation Measure(s): ***None Required***

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

As noted earlier, Project-specific and cumulative impacts related to this Checklist Item would be ***Less Than Significant***.

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?

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

Expansive soils possess a shrink-swell characteristic which is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying. Structural damage may occur over a long period of time, usually the result of inadequate soil and foundation engineering, or the placement of structures directly on expansive soils.

According to Feasibility Report; there is one soil category within the Matheny Tract area identified by the United States Department of Agriculture Natural Resources Conservation Service (NRCS) as Colpien Loam, 0 to 2 percent slopes (see Appendix B [of the Feasibility

²³ Tulare County, Revised Draft General Plan 2030 Update, August 2012. Pages 10-5 and 10-6.

Report]). The Colpien Loam consists of very deep, moderately-well-drained soils on terraces that formed in alluvium derived mainly from granitic rocks. These soils are artificially drained. Slopes are 0 to 2 percent. The average annual precipitation is about 10 inches and the average annual temperature is about 63 degrees F. According to the NRCS, a typical soil profile consists of loam between 0 and 60 inches and sandy loam between 60 and 65 inches. The frost-free season is 250 to 300 days. Although Colpien Loam is considered prime farmland if irrigated and protected or free from flooding during growing season, the Matheny Tract is within the City of Tulare's Sphere of Influence. As such, there is no proposed significant impact to the existing soils in the Matheny Tract area.

The Tulare County General Plan, Health and Safety Element includes several policies and implementation measures that have been developed to ensure a safe environment for residents, visitors, and businesses. For example, policies include continued compliance with all applicable development requirements including the California Building Code (see Policies HS-1.4) and the restriction of development within a variety of hazardous areas (see Policies HS-1.2 and HS-1.3). Policy HS-1.5 promotes the awareness and education of residents about natural hazards, including soil conditions. Policy HS-1.11 requires the preparation of engineering studies for all new development proposals within areas of potential soil instability.

With adherence to these codes and regulations and implementation of the policies contained in the Health and Safety Element, geologic hazard impacts associated with expansive soils would be minimized. With implementation of required General Plan policies, there would be a ***Less Than Significant Project Specific Impact***.

As noted earlier, Tulare County General Plan Policies designed to minimize geologic hazard impacts to people and structures in the County include the following:

- HS-1.2 Development Constraints
- HS-1.3 Hazardous Lands
- HS-1.4 Building and Codes
- HS-1.5 Hazard Awareness and Public Education
- HS-1.11 Site Investigations

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

Regional development would increase the number of people and structures subject to geologic- and soils-related risks. Compliance with federal, State and local regulations as well as General Plan policies would reduce building construction and run-off and erosion potential impacts associated with geology and soils to a less-than-significant level.

Federal, State and local regulations are designed to protect people and structures from increased hazards related to such issues as earthquakes, landslides and soil erosion. As a result, conformance with adopted California building codes, and other measures to protect people and structures from geologic hazards, would reduce this impact to a less than

significant level. The Project's incremental contribution cumulative impacts would be ***Less Than Significant***.

Mitigation Measure(s): ***None Required***

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

As noted earlier, ***Less Than Significant Project-specific or Cumulative Impacts*** related to this Checklist Item would 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 Project would connect the community to the City of Tulare's existing WWTP. Implementation of the Project would take the community of Matheny Tract off private, individual septic systems and place it on a public sewer system. Therefore, there would be ***No impact***.

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

See Project Impact Analysis.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, ***No Project -specific or Cumulative Impacts*** related to this Checklist Item would occur.

REFERENCES

CEQA Guidelines Section 15126.2

Tulare County General Plan 2030 Update, *Appendix B General Plan Background Report*

Tulare County General Plan 2030 Update and Final EIR (SCH # 2006041162).

State of California Department of Conservation, *Alquist-Priolo Earthquake Fault Zone Maps*, which was accessed June 8, 2017 at: http://www.quake.ca.gov/gmaps/ap/ap_maps.htm, Updated December 2010

Five County Seismic Safety Element, *Summary & Policy Recommendations II*, 3 and 15.

USGS, *Earthquake Hazards Program: Custom Mapping & Analysis Tools*, which was accessed June 8, 2017 at: <https://earthquake.usgs.gov/hazards/qfaults/map/#qfaults>

USGS. *Earthquake Hazards Program: Glossary*, which was accessed June 8, 2017 at: <https://earthquake.usgs.gov/learn/glossary/>.

Metcalf & Eddy, “Wastewater Engineering,” third edition, Table 2-10

Provost & Pritchard Consulting Group, *Project Feasibility Report, Matheny Tract Wastewater System, Tulare County, California 2016*.

Chapter 3.7

Greenhouse Gas Emissions

SUMMARY OF FINDINGS

Based on the impact analysis below, potential impacts related to Greenhouse Gas generation as a result of the Proposed/Preferred Project are determined to be ***Less Than Significant***. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 2, City of Tulare option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. Greenhouse Gas impacts from the Project have been compared to a similar project (Plainview) in Tulare County that were estimated using the Sacramento Metropolitan Air Quality Management District’s Roadway Construction Emissions Model Version 7.1.5.1 (which is the preferred model for estimating emissions from linear construction projects) and is included as Appendix “A” of this Draft Environmental Impact Report (DEIR). As this Project is approximately 60% the size of Plainview’s, it is reasonable to conclude that a less than significant impact would occur. The impact determinations in this chapter are supported by a review of potential impacts provided in the following analysis using the recommendations in the San Joaquin Valley Unified Air Pollution Control District’s (Air District or SJVAPCD) *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* and *District Policy APR 2015: Zero Equivalency Policy for Greenhouse Gases*.¹

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 §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,

¹ Air District APR 2015 can be found on the Air District’s website at http://www.valleyair.org/policies_per/Policies/REVISEDAP2015.pdf.

in the context of a particular project, whether to:

- (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or
 - (2) Rely on a qualitative analysis or performance based standards.
- (b) A lead agency should consider the following factors, among others, when assessing 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. 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.”²

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.”³

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

² CEQA Guidelines, Section 15064.4

³ Ibid. Appendix G: Environmental Checklist Form.

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 emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.”⁴

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 (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).”⁵ Nitrogen trifluoride was not listed initially in AB 32 but was subsequently added to the list via legislation. ⁶

“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

⁴ 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.

⁵ General Plan Background Report. Pages 6-19 to 6-20.

⁶ California Air Resources Board. Assembly Bill 32 Overview. Website: <http://www.arb.ca.gov/cc/ab32/ab32.htm>. Accessed on June 8, 2017.

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.”⁷

“In 2007, Tulare County generated approximately 5.2 million tonnes of CO₂e [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.”⁸ **Table 3.7-1** below, identifies Tulare County’s emissions by sector in 2007.

Table 3.7-1
Emissions by Sector in 2007⁹

Sector	CO₂e (tonnes/year)	% of Total
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%
Total	5,208,060	100%
Per Capita	36.1	

“In 2030, Tulare County is forecast to generate approximately 6.1 million tonnes of CO₂e. 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 CO₂e per resident”¹⁰.

⁷ United States Environmental Protection Agency, National Greenhouse Gas Emissions Data. Page 1-2. Website <http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2011-Chapter-1-Introduction.pdf>. Accessed December 11, 2015. EPA reference includes: 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. December 2009.

⁸ General Plan 2030 Update Background Report. Page 6-36.

⁹ Ibid. 6-38.

¹⁰ Op. Cit.

Table 3.7-2 Emissions by Sector in 2030¹¹		
Sector	CO₂e (tonnes/year)	% of Total
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%
Total	6,105,480	100%
Per Capita	27.4	

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, CO₂ and methane are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas methane primarily results from off-gassing associated with agricultural practices and landfills. SF₆ 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.

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

¹¹ Op. Cit.

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.”¹²

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.^[2]
- **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.^[3]
- **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 CO₂ from the atmosphere) or a source of greenhouse gas emissions. In the United States, since 1990, managed forests and other lands have absorbed more CO₂ from the atmosphere than they emit.”¹³

¹² General Plan 2030 Update Background Report. Page 6-31. Background Report citations include: ARB website: <http://www.arb.ca.gov/cc/120106workshop/intropres12106.pdf> (accessed July 2008) and IPCC website: <http://www.grida.no/climate/ipcc%5Ftar/wgl/032.htm#f5> (accessed July 2008).

¹³ United States Environmental Protection Agency. Sources of Greenhouse Gas Emissions. Website: <http://www3.epa.gov/climatechange/ghgemissions/sources.html>. Accessed June 9, 2017.

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.”¹⁴

“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 (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆) — 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.”¹⁵

However, as indicated by the U.S. EPA Website accessed on June 15, 2017; “Thank you for your interest in this topic. We are currently updating our website to reflect EPA's priorities under the leadership of President Trump and Administrator Pruitt. If you're looking for an archived version of this page, you can find it on the [January 19 snapshot](#).”¹⁶

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,...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.”¹⁷

¹⁴ United States Environmental Protection Agency. Regulatory Initiatives. Website:

<http://www3.epa.gov/climatechange/EPAactivities/regulatory-initiatives.html>. Accessed on November 17, 2015.

¹⁵ United States Environmental Protection Agency. Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act. Website: <http://www3.epa.gov/climatechange/endangerment/>. Accessed on November 17, 2015

¹⁶ United States Environmental Protection Agency. Website: <https://www.epa.gov/sites/production/files/signpost/cc.html>. Accessed on June 15, 2017.

¹⁷ Tulare County General Plan 2030 Update RDEIR. Pages 3.3-2 to 3.3-3.

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).”¹⁸

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.

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.

¹⁸ Tulare County General Plan 2030 Update Background Report. Pages 6-21 to 6-22. Background Report citation: Climate Action Team Report to Governor Schwarzenegger and the Legislature. March 2006.

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.”¹⁹

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”.²⁰

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

¹⁹ Ibid. 6-22 to 6-23

²⁰ Op. Cit. 6-26 to 6-27. Background Report citation: Technical Advisory – CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review. June 19, 2008.

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, 2012.²¹

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.”²² On July 22, 2004, The California Air Resources Board adopted the 2004 Revisions to the California State Implementation Plan for Carbon Monoxide²³.

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;
- 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.”²⁴

²¹ Senate Bill 375 (Steinberg). Website: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=200720080SB375. Accessed June 9, 2017.

²² California Air Resources Board. Air Quality Standards and Area Designations. Website: <http://www.arb.ca.gov/design/design.htm>. Accessed June 8, 2017

²³ California Air Resources Board. 2004 Revisions to the California State Implementation Plan for Carbon Monoxide. Website: <http://www.arb.ca.gov/planning/sip/co/co.htm>. Accessed June 8, 2017

²⁴ Tulare County General Plan 2030 Update Background Report. Pages 6-27 to 6-28. Background Report citation: Climate Change Proposed Scoping Plan. October 2008.

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.”²⁵

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.²⁶

“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.”²⁷ 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.²⁸

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 entrepreneurial air quality-management strategies.”²⁹ “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.”³⁰

The Air District has established a menu of performance standards, some of which depend on the existence of an adopted climate action plan or the establishment of Best Performance Standards (BPS). The Air District’s *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Project under CEQA* document provides guidance to lead agencies for evaluating the significance of project-specific and cumulative impacts related to GHG emissions.

²⁵ Op. Cit. Page 6-28. Background Report citation: CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. January 2008.

²⁶ California Air Pollution Control Officers Association. Website: <http://www.capcoa.org/>. Accessed on June 9, 2017.

²⁷ Ibid.

²⁸ California Air Pollution Control Officers Association. CAPCOA Greenhouse Gas Reduction Exchange. Website: <http://www.ghgrx.org/>. Accessed June 9, 2017.

²⁹ San Joaquin Valley Air Pollution Control District. About the District. Website: http://www.valleyair.org/General_info/aboutdist.htm#Mission. Accessed June 9, 2017.

³⁰ Ibid.

As discussed above in the Thresholds of Significance discussion, the Air District has determined that the quantification of GHG emissions is expected for all projects that require an Environmental Impact Report.³¹

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 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,

³¹ San Joaquin Valley Air Pollution Control District Policy, Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Project under CEQA. Pages 3 to 5.

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.”³²

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

The Project would generate GHG emissions through construction-related activities and maintenance-related activities. The period of construction would be short-term, and construction-phase GHG emissions would occur directly from the off-road heavy-duty equipment and the on-road motor vehicles needed to mobilize crew, equipment, and materials, and to construct the pipeline.

According to the Air District’s *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* (Agency Guidance), projects implementing Best Performance Standards (BPS) in accordance with District guidance are determined to have a less than significant individual and cumulative impact on global climate change and do not require project specific quantification of GHG emissions. The Agency Guidance also states that projects not implementing BPS should quantify emissions and any project demonstrating a 29% reduction in GHG emissions as compared to business-as-usual (BAU)

³² Tulare County Climate Action Plan. Page 1

would have a less than significant impact.³³ The Air District's policy *APR 2015: Zero Equivalency Policy for Greenhouse Gases* has determined that projects emitting less than 230 metric tons of CO₂e per year is considered to have a less than significant impact.³⁴

As the Air District has not established BPS for construction-type projects (such as the Project) GHG emissions were estimated using the Sacramento Metropolitan Air Quality Management District's Roadway Construction Emissions Model Version 7.1.5.1 (see Appendix "A" of this DEIR). As construction emissions are short-term in nature, generation of GHG emissions would cease upon completion of the Project. Consistent with Air District procedures for determining construction related impacts for stationary sources, Project-related GHG emissions were amortized over the projected life of the pipeline. Wastewater facility pipelines are typically specified for a 50-year life; however, for a conservative estimate, emissions have been amortized assuming a 30-year life.

The emissions model for the Plainview Wastewater System Project indicates that the Project would emit 1,012.7 tons of GHG emissions during construction operations. As noted earlier, as the Matheny Tract Wastewater System Project is approximately 60% the size of Plainview, it would likely result in approximately 607.62 tons (which is 60% of 1012.7 tons). Therefore, the 30-year amortized GHG emissions are 20.56 tons/year (60% of 33.76 tons), which is below the Air District's zero-equivalency threshold. As such, a ***Less Than Significant Project-specific Impact*** related to this Checklist Item would occur.

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

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. As the proposed Project would result in Less Than Significant Project-specific Impacts, ***Less Than Significant Cumulative Impacts*** would also occur.

Mitigation Measure(s): ***None Required***

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

As noted earlier, the Project would result in ***Less Than Significant Project-specific and Cumulative Impacts*** related to this Checklist Item.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

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

³³ San Joaquin Valley Air Pollution Control District, Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects Under CEQA. Pages 4 to 5.

³⁴ San Joaquin Valley Air Pollution Control District, APR 2015: Zero Equivalency Policy for Greenhouse Gases. Page 2.

The Project does not conflict with the Tulare Climate Action Plan, the Tulare County General Plan, the Air District Climate Change Action Plan, or any Air District rules/regulations, for the purpose of reducing greenhouse gas emissions.

The Project's objectives and components do not conflict with the goals of AB 32 and greenhouse gas reduction. Therefore, the Project is consistent with the aforementioned plans, policies, and regulations. As such, ***No Project-specific Impacts*** related to this Checklist Item would occur.

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

The geographic area of this cumulative analysis is the San Joaquin Valley Air Basin. As the proposed Project is consistent with aforementioned plans, policies, and regulations, ***Less Than Significant Cumulative Impacts*** related to this Checklist Item would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No 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

As defined by SJVAPCD or Tulare County General Plan:

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.”³⁵

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.”³⁶

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.”³⁷

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.”³⁸

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.”³⁹ “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.”⁴⁰

Category: “A District approved subdivision within a “class” as identified by unique operational or technical aspects.”⁴¹

³⁵ 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.

³⁶ Ibid. 6 to 7

³⁷ Op. Cit. 7

³⁸ Op. Cit.

³⁹ Op. Cit.

⁴⁰ San Joaquin Valley Air Pollution Control District, FACT SHEET: Addressing Greenhouse Gas Emission Impacts under the California Environmental Quality Act (CEQA). Page 1.

⁴¹ District Policy, Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency. Page 7.

Class: “The broadest District approved division of stationary GHG sources based on fundamental type of equipment or industrial classification of the source operation.”⁴²

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.”⁴³

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 (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrochlorofluorocarbons (HCFCs), ozone (O₃), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).”⁴⁴

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⁴² Op. Cit.

⁴³ General Plan 2030 Update Background Report. Page 6-3.

⁴⁴ Ibid. 6-3.

Draft Environmental Impact Report
Matheny Tract Wastewater System Project Feasibility Report

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FACT SHEET: Addressing Greenhouse Gas Emissions Impact under the California Environmental Quality Act (CEQA) – Land Use Development Projects. Website:

https://www.valleyair.org/Programs/CCAP/bps/Fact_Sheet_Development_Sources.pdf.

Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. Website: [http://www.valleyair.org/Programs/CCAP/12-17-](http://www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf)

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Tulare County Resource Management Agency (RMA)

Climate Action Plan

General Plan 2030 Update

General Plan 2030 Update Background Report

General Plan 2030 Update Recirculated Draft Environmental Impact Report (SCH # 2006041162)

United States Environmental Protection Agency (EPA)

Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act. Website accessed on June 8, 2017:

<http://www3.epa.gov/climatechange/endangerment/>. [Note: Per U.S. EPA at

<https://www.epa.gov/sites/production/files/signpost/cc.html>.; “We are currently updating our website to reflect EPA's priorities under the leadership of President Trump and Administrator Pruitt. If you're looking for an archived version of this page, you can find it on the [January 19 snapshot](#).”]

U.S. Greenhouse Gas Inventory Report Archive. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2011. EPA 430-R-13-001. Website accessed June 8, 2017:

<http://www3.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2011-Chapter-1-Introduction.pdf>. [Note: Per U.S. EPA at

<https://www.epa.gov/sites/production/files/signpost/cc.html>.; “We are currently updating our website to reflect EPA's priorities under the leadership of President Trump and Administrator Pruitt. If you're looking for an archived version of this page, you can find it on the [January 19 snapshot](#).”]

Regulatory Initiatives. Website accessed on June 8, 2017:

<http://www3.epa.gov/climatechange/EPAactivities/regulatory-initiatives.html>. [Note: Per U.S. EPA at <https://www.epa.gov/sites/production/files/signpost/cc.html>.; “We are currently updating our website to

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reflect EPA's priorities under the leadership of President Trump and Administrator Pruitt. If you're looking for an archived version of this page, you can find it on the [January 19 snapshot](#).”]

Sources of Greenhouse Gas Emissions. Website accessed on June 8, 2017:

<http://www3.epa.gov/climatechange/ghgemissions/sources.html>. [Note: Per U.S. EPA at <https://www.epa.gov/sites/production/files/signpost/cc.html>.; “We are currently updating our website to reflect EPA's priorities under the leadership of President Trump and Administrator Pruitt. If you're looking for an archived version of this page, you can find it on the [January 19 snapshot](#).”]

Provost and Pritchard Consulting Group, *Project Feasibility Report, Matheny Tract Wastewater System, Tulare County, California 2016*.

Chapter 3.8

Hazards and Hazardous Materials

SUMMARY OF FINDINGS

The Preferred/Proposed Project will result in **Less Than Significant Impacts** related to Hazards and Hazardous Materials and therefore, no mitigation measures are required. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 2, City of Tulare option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. 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 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.”¹

¹ CEQA Guidelines, Section 15126.2 (a)

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 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 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 thresholds of significance for this section are established by the CEQA Checklist item questions. The following are potential thresholds for significance:

- Create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials?
- 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?
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- Be located on a site which is included on a list of hazardous materials sites pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- 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 for people residing or working in the project area?
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

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).”²

² Tulare County General Plan, *Background Report*. Page 8-26.

“Similarly, hazardous wastes are defined as 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).”³

The Project is located within the unincorporated portion of central Tulare County in California’s Central Valley. Matheny Tract is a Census Designated Place located one mile south of the City of Tulare, generally south of Avenue 216 (Paige Avenue), east of Road 96 (Pratt Street) and west of “I” Drive and State Route 99. Tulare County is surrounded by Fresno County to the north, Inyo County to the east, Kern County to the south, and Kings County to the west. Areas surrounding the Project are primarily utilized for agricultural purposes. Aside from some likely agricultural chemical use on agricultural properties in the vicinity, the current uses of the site and adjoining properties are not ones that are indicative of the use, treatment, storage, disposal or generation of significant quantities of hazardous substances or petroleum products.

The nearest airstrip is Tulare Municipal Airport (Mefford Field, City of Tulare), located approximately 1.2 miles southeast of South Matheny Tract and approximately 0.80 miles southeast of North Matheny Tract, respectively.

The Visalia Landfill is approximately 15 miles north of Matheny Tract, while the Teapot Dome Landfill is located approximately 17 miles east of Matheny Tract. The City of Tulare industrial wastewater treatment plant is the nearest WWTP which is located approximately 0.75 miles north of Matheny Tract.

A search of potential sources of hazardous material in the Project vicinity was performed by Provost & Pritchard Consulting Group using the Geotracker database (the State Water Resources Control Board [SWRCB] underground contaminant information management system). Data about leaking underground storage tanks and other types of soil and groundwater contamination, along with associated cleanup activities, are part of the information that the SWRCB is required to maintain under Section 65962.5 of the California Public Resources Code (PRC) (i.e. the “Cortese List”).

The Feasibility Report noted; “A review of Identified Hazardous Waste Sites on the EnviroStor Database determined that there are no identified hazardous sites within the Matheny Tract or nearby vicinity.

A review of the Geotracker Database (Appendix E [in the Feasibility Report]), which is maintained by the California Environmental Protection Agency – State Water Resource Control Board (SWRCB), identifies C&E Feed & Auto Parts (T0610700135), at the northeast corner of Pratt Street and Addie Avenue, as a site with a cleanup status of “Completed- Case Closed” and Curti & Sons, Inc. (T0610700411) at 3235 Avenue 199, as a site with a cleanup status of “Open

³ Ibid.

– Remediation.” The SWRCB defines “Open – Remediation” as an on-going corrective action at a site where the actual construction or implementation activities to accomplish cleanup at the site are in process.”⁴

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).”⁵

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 [Department of Energy] 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.””⁶

Superfund

“[Comprehensive Environmental Response, Compensation and Liability Act] CERCLA, commonly referred to as Superfund, were 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

⁴ Matheny Tract Wastewater System Project Feasibility Report, 2016. Page 8. Prepared by Provost & Pritchard Consulting Group (and included as Appendix “D” of this DEIR).

⁵ Op. Cit. 8-37. Background Report citation includes California Department of Toxic Substance Control Hazardous Waste Tracking System Database, Total Yearly Tonnage by Waste Code. Report generated November 17, 2008.

⁶ United States Department of Energy, The Office of Health, Safety and Security, <http://homer.ornl.gov/sesa/environment/policy/hmta.html>. Accessed December 31, 2015.

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.”⁷

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 (NPL).”⁸

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 states 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.”⁹

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 [Resource Conservation and Recovery Act] 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 States Unified Program, which is a consolidation of six environmental programs at the local level, and conducts

⁷ Tulare County General Plan 2030 Update, Background Report, February 2010. Page 8-27.

⁸ Ibid.

⁹ Op. Cit. 8-28 to 8-29.

triennial reviews of Unified Program agencies to ensure that their programs are consistent statewide and conform to standards.”¹⁰

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 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.”¹¹

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.”¹²

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).”¹³ The Cortese List identifies the following:

- Hazardous Waste and Substances Sites
- Cease and Desist Order sites
- Waste Constituents above Hazardous Waste Levels outside the Waste Management Unit Sites
- Leaking Underground Storage Tank (LUST) Cleanup Sites
- Other cleanup sites
- Land disposal sites
- Military sites
- Waste Discharge Requirements sites
- Permitted Underground Storage Tank (UST) Facilities Sites

¹⁰ Op. Cit. 8-29.

¹¹ Op. Cit. 8-30 to 8-31.

¹² Op. Cit. 8-31.

¹³ Cal/EPA, *Background and History on "Cortese List" Statute*, <http://www.calepa.ca.gov/sitecleanup/corteselist/Background.htm>, Accessed December 30, 2015

- Monitoring Wells Sites
- DTSC Cleanup Sites
- DTSC Hazardous Waste Permit Sites

California Hazardous Material Release Response Plans and Inventory Law of 1985

The California Hazardous Material Release Response Plans and Inventory Law of 1985, often referred to as the Business Plan Act, requires facility operators to prepare Hazardous Materials Business Plans (HMBP). HMBPs are required to inventory hazardous materials stored and used within the site, disclose the location of storage and uses on site, maintain an emergency response plan, and contain provisions specifying employee training in safety and emergency response procedures. Local regulatory authorities such as Environmental Health Departments collect Hazard materials Business Plans.

California Accidental Release Program (CalARP)

The CalARP requires certain facilities to prepare RMPs. The CalARP is similar to the CAA's Section 112(r). A facility handling hazardous materials listed in the CalARP and federal RMP regulations must comply with both statutes. The CalARB formally replaced California's old Risk Management Prevention Program (RMPP) as of January 1997. Certain facilities prior to implementation of the CalARP were required to comply with the RMPP regulation administered by the State Office of Emergency Services (OES). The majority of these facilities and future facilities are required to comply with both the federal RMP and CalARP regulations. These similar regulations require facility operators that handle an amount of a listed acutely hazardous material, as well as explosive or flammable material, exceeding a threshold quantity to conduct additional planning studies covering equipment and safety systems, operating procedures, preventative maintenance, off-site consequence and risk assessment analysis, and safety auditing. OES delegates its enforcement authority to local administering agencies such as county Environmental Health Departments.

Emergency Response to Hazardous Material Incidents

California has developed an Emergency Response Plan to coordinate emergency services provided by Federal, State, and local government and private agencies. Response to hazardous materials incidents is one part of this plan. The plan is administered by the state OES, which coordinates the responses of other agencies including CalEPA, the California Highway Patrol, CDFG, the Central RWQCB, and the Tulare County Office of Emergency Services.¹⁴

Local Policy & Regulations

Tulare County Office of Emergency Services

¹⁴ County of Tulare Office of Emergency Services, What is OES? <http://tularecounty.ca.gov/oes/index.cfm/what-is-oes/> Accessed May 24, 2017.

“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 should it occur, or both. Tulare County Office of Emergency Services implements the 2011 Tulare County Hazard Mitigation Plan.”¹⁵

Tulare County Environmental Health and Human Services Agency

“Since 1995, our organization, commonly referred to as HHSA, has been an integrated agency, providing a broad range of social and human services. Our programs include traditional categories of County service delivery, such as public health, public assistance, environmental

¹⁵ 2011 Tulare County Hazard Mitigation Plan, <http://tularecounty.ca.gov/oes/index.cfm/linkservid/6C690A67-1893-493E-A5467D6CAC8BDDE5/showMeta/0/> Accessed December 30, 2014.

health, child protective services, and mental health. Programs for veterans, those on conservatorship, and for the aging population also fall under our umbrella.”¹⁶

Tulare County General Plan Policies

The General Plan has a number of policies that apply to projects within Tulare County. General Plan policies that apply to the 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 Federal safety standards, including the Hazardous Waste Management Plan, Emergency Operations Plan, and Area Plan.

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 ANALYSIS

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 Impact

Other than the two sites noted in the EnviroStor Database search results provided in the Feasibility Report’s Appendix “E”, there are no known hazardous materials sites in the Project vicinity. Construction of the Project’s components would require the transport and use of small quantities of hazardous materials in the form of gasoline, diesel and oil associated with construction equipment. There is the potential for small leaks due to refueling of the construction equipment; however, standard construction Best Management Practices (BMPs) included in the SWPPP would reduce the potential for and clean-up in the unlikely event of spills or leaks of construction-related fuels and other hazardous materials. The BMP included in the SWPPP addresses storm water contamination, control the amount of runoff from the site, and require proper disposal or recycling of hazardous materials. All solid construction wastes would be disposed of or recycled by qualified service providers. In order to accommodate directing of construction materials to proper end-point destinations, contractors and workers would be educated on waste sorting, appropriate recycling storage areas, and measures to reduce landfill waste. Any hazardous wastes, in liquid or solid form, would be removed from the site by a licensed hazardous waste recycling or disposal firm.

¹⁶ Tulare County Environmental Health Webpage, <http://tchhsa.org/hhsa/index.cfm/message-from-the-director/>

The Project operation may require the storage of minimal amounts of hazardous materials, such as fuel and lubricants related to lift station maintenance. The storage, transport, and use of these materials would comply with Local, State, and Federal regulatory requirements. Typical operations and maintenance activities would produce less than 220 lbs. of combined solid and liquid waste. The EPA considers businesses that produce less than 220 lbs. of hazardous waste a Conditionally Exempt Small Quantity Generator, which are exempt from hazardous waste management regulations¹⁷. Implementation of Tulare County General Plan policies would ensure that impacts from the handling, storage, transport, or accidental release of hazardous materials are less than significant. The Project would not result in a significant hazard to the public or the environment; therefore, Project-specific impacts would be ***Less Than Significant***.

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 Tulare County 2030 General Plan EIR.

While construction of the proposed pipeline would require equipment that utilizes insignificant amounts hazardous materials, the long term operation of the pipeline would not require any. Therefore, there would be ***No Cumulative Impacts***.

Mitigation Measure(s): ***None Required***

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

Potential Project-specific impacts related to this Checklist Item would be ***Less Than Significant***. ***No Cumulative Impacts*** related to this Checklist Item would occur.

- 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***

Construction and operation of the Project would require equipment that utilizes insignificant amounts of hazardous materials. Therefore, Project-specific impacts would be ***Less Than Significant***.

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

¹⁷ Environmental Protection Agency, Managing Your Hazardous Waste, A guide for Small Businesses. <http://www.epa.gov/osw/hazard/generation/sqg/handbook/k01005.pdf>. Accessed July, 2013.

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 Tulare County 2030 General Plan EIR.

As noted earlier, while construction of the proposed pipeline would require equipment that utilizes insignificant amounts of hazardous materials, the long-term operation of the pipeline would not require any such materials. Therefore, cumulative impacts would be ***Less Than Significant***.

Mitigation Measure(s): ***None Required***

Conclusion: ***Less Than Significant***

As discussed earlier, Project-specific impacts related to this Checklist item would be Less Than Significant. ***No Cumulative Impacts*** related to this Checklist Item would occur.

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 is not located within one-quarter mile of an existing or proposed school. The nearest school, Palo Verde Elementary, is located approximately 1.5 miles south of Matheny Tract. Therefore, ***No Project-specific Impact*** would 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 Tulare County 2030 General Plan EIR.

The Project is not located within one-quarter mile of an existing or proposed school. Therefore, ***No Cumulative Impact*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would 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 noted earlier, the Feasibility Report noted; “A review of Identified Hazardous Waste Sites on the EnviroStor Database determined that there are no identified hazardous sites within the Matheny Tract or nearby vicinity.”¹⁸ As such, the Project does not involve land that is listed as a hazardous materials site pursuant to Government Code Section 65962.5 and is not included on a list compiled by the Department of Toxic Substances Control. Therefore, ***No Project-specific Impact*** would 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 Tulare County 2030 General Plan EIR.

As noted earlier, the Project does not involve land that is listed as a hazardous materials site pursuant to Government Code Section 65962.5 and is not included on a list compiled by the Department of Toxic Substances Control. Therefore, ***No Cumulative Impact*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would 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 for people residing or working in the project area?**

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

The nearest airstrip is Tulare Municipal Airport (Mefford Field, City of Tulare), located approximately 1.2 miles southeast of South Matheny Tract and approximately 0.80 miles southwest of North Matheny Tract, respectively.

The Project is not located within a Tulare County Airport Land Use Plan boundary, Federal Aviation Administration designated civilian airport Runway Clear Zone, military airfield Clear Zone, or an Accidental Potential Zone. Therefore, ***No Project-specific Impact*** would 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 Tulare County 2030 General Plan EIR.

¹⁸ *Project Feasibility Report, Matheny Tract Wastewater System, Tulare County, California 2016*. Page 8. Prepared by Provost & Pritchard Consulting Group (and included as Appendix “D” of this DEIR).

The Project is not located within a Tulare County Airport Land Use Plan boundary. Therefore, ***No Cumulative Impacts*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

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

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

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

The Project is not in the vicinity of a private airstrip. Therefore, ***No Project-specific Impact*** would 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 Tulare County 2030 General Plan EIR.

The Project is not in the vicinity of a private airstrip. Therefore, ***No Cumulative Impacts*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would occur.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Project Impact Analysis: ***No 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.”¹⁹

The plan referenced above is identified in the Tulare County General Plan as the Multi-Hazard Functional Plan. The plan was superseded with the Tulare County Hazard Mitigation Plan (HMP) (2011) and Tulare County/Operation Area Emergency Operation Plan (EOP) (2013).²⁰ “[H]azard mitigation is any work to minimize the impacts of any type of hazard event before it occurs. Hazard mitigation aims to reduce losses from future disasters. It is a process in which hazards are identified and profiled, the people and facilities at risk are analyzed, and mitigation actions to reduce or eliminate hazard risk are developed. The implementation of the mitigation actions, which include both short- and long-term strategies that may involve planning, policy changes, programs, projects, and other activities, is the end result of this process.”²¹ The EOP “establishes policies, procedures and an emergency management organization (EMO), and assigns roles and responsibilities to ensure the effective management of emergency operations within the Tulare Operational Area (OA). The EOP addresses the County/Operational Area's planned response to disasters and supports the California Emergency Plan. The plan also identifies sources of external support which might be provided through mutual aid and specific statutory authorities by other jurisdictions, State and Federal agencies, and the private sector.”²²

In addition to the Tulare County General Plan, the Tulare County Association of Governments (TCAG) Draft Environmental-Impact-Report for the 2014-2040 Regional Transportation Plan & Sustainable-Communities Strategy (RTP/SCS) indicated that the RTP/SCS could facilitate the transport of hazardous materials on roadways or railways in Tulare County. “Transportation improvement projects under the 2014 RTP/SCS could facilitate the transport of hazardous materials on roadways or railways in Tulare County but would not directly result in a transport-related hazard. Compliance with existing laws and regulations, such as the federal Resource Conservation and Recovery Act (RCRA) and the state Hazardous Waste Control Act and California Vehicle Code, would ensure that the transport of hazardous materials, the handling of acute hazardous substances within proximity to schools, and the release of hazardous materials would be adequately controlled such that impacts would be less than significant. With respect to hazardous materials sites listed under Government Code Section 65962.5, the majority of transportation improvements involve modification of existing facilities, rather than construction of new facilities, and would not occur on known hazardous sites. With regard to future projects that would develop new facilities, because of the programmatic nature of the project, it is not possible to determine with accuracy whether future projects located on previously undisturbed land would contain hazardous materials. However, such projects would be required to address any on-site environmental issues, including any potential hazardous materials and mitigate such impacts accordingly. Impacts would be less than significant.

¹⁹ Tulare County General Plan 2030 Update, Background Report, February 2010. Pages 8-44 to 8-45.

²⁰ These two documents are available upon request from the Tulare County Resource Management Agency-Environmental Planning Division.

²¹ Tulare County Hazard Mitigation Plan. Page 1-1.

²² Tulare County/Operation Area Emergency Operation Plan. Page 1.

Some projects under the 2014 RTP/SCS may be located within an airport safety zone; however, the 2014 RTP/SCS would not directly expose people or create a new airport safety hazard. The 2014 RTP/SCS would not expose people to new wildland fire hazards, as future infill and TOD projects would occur in existing urbanized areas, not adjacent to wildlands. Finally, the 2014 RTP/SCS would have no adverse impact on adopted emergency response plans or emergency evacuation plan; rather, by improving circulation in the County, it could have beneficial impact on emergency response and evacuation. Impacts would be less than significant.”²³

The Project site consists mainly of existing rural and semi-rural paved roads and existing road right-of-ways. The pipelines would be trenched in the existing rights-of-way that generally consist of gravel road shoulders (which is typical of roadways in the area). Occasionally, pipelines would require trenching beneath paved roadways to connect to other pipeline infrastructure, as is the case with the inter-tie with existing Tulare wastewater treatment plant pipeline at the intersection of Avenue 216 (Paige Avenue) and Road 96 (Pratt Street). The construction and operation of an underground pipeline would not require long-term roadway closures nor would it impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, ***No Project-specific Impact*** would 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 Tulare County 2030 General Plan EIR.

The construction and operation of an underground pipeline would not impair implementation of or physically interfere with an adopted emergency response plans or emergency evacuation plans. Therefore, ***No Cumulative Impact*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would occur.

- h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?**

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

²³ Draft 2014-2040 Regional Transportation Plan & Sustainable Communities Strategy Draft Environmental Impact Report-(SCH#2012081070) Pages 4.13-1 and 4.13-2; which can be accessed at: <http://www.tularecog.org/wp-content/uploads/2015/06/Regional-Transportation-Plan-RTP-Sustainable-Communities-Strategy-SCS-Environmental-Impact-Report-Draft-ADEIR-with-Appendices.pdf>

The Project site consists mainly of existing rural and semi-rural paved roads and existing road rights-of-way. The pipelines would be trenched in the existing rights-of-way that generally consist of gravel road shoulders, which is typical of roadways in the area. Occasionally, pipelines would require trenching through paved roadways to connect to other pipeline infrastructure, as is the case with the inter-tie with existing Tulare wastewater treatment plant pipeline at the intersection of Avenue 216 (Paige Avenue) and Road 96 (Pratt Street). The Project site does not consist of any wildlands. Therefore, the Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. There would be ***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/or Tulare County 2030 General Plan EIR.

The Project is not located in wildland and would not impact the growth of wildlands. ***No Cumulative Impacts*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

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

DEFINITIONS

Hazardous Material - “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).”²⁴

Hazardous Wastes - “Similarly, hazardous wastes are defined as 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).”²⁵

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 above categories.”²⁶

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.”²⁷

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.”²⁸ Treatment Facilities: “There are nine tiered permit facilities conducting onsite hazardous waste treatment in a total of eleven treatment processes in Tulare County. An estimated total of 10,549 tons of hazardous waste per year is treated by these facilities. The three highest-volume hazardous waste types treated are:

²⁴ Tulare County General Plan, *Background Report*, 8-26.

²⁵ Ibid. 8-26.

²⁶ Op. Cit. 8-28 to 8-29.

²⁷ Op. Cit. 8-29.

²⁸ Op. Cit.

1. Unspecified Aqueous Solution– 6,028 tons;
2. Aqueous Solution with Metals – 3,570 tons; and
3. Liquids with Chromium6+ greater than 500 mg/L – 741 tons.”²⁹

Storage Facilities - “According to available information from the agencies (Department of Toxic Substances Control [DTSC] and Regional Water Quality Control Board [RWQCB]) that oversee treatment, storage and disposal facilities (TSDFs), there are no facilities authorized for the storage of hazardous waste in Tulare County.”³⁰

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.”³¹

REFERENCES

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²⁹ Op. Cit. 8-30.

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³¹ Op. Cit.

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Chapter 3.9

Hydrology and Water Quality

SUMMARY OF FINDINGS

The Preferred/Proposed Project would result in *Less Than Significant Impacts* related to Hydrology and Water Quality with implementation of the mitigation measures recommended below in the analysis below. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 2, City of Tulare option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. A review of potential impacts is provided in the analysis below and in as a component of the “*Project Feasibility Report, Matheny Tract Wastewater System, Tulare County, California 2016*” (Feasibility Report or Report) and included as Appendix “D” of this DEIR.

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 CEQA Guidelines Section 15126, all phases of the proposed Project would 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.”¹

The environmental setting provides a description of the Hydrology and Water Quality 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 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 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 thresholds of significance for this section are established by the CEQA checklist item questions. The following are potential thresholds for significance.

- Project is not in compliance with the regulations outlined by the State Water Resources Control Board.
- Project is not in compliance with the regulations by the Regional Water Quality Control Board.
- Design of stormwater facilities will not adequately protect surface water quality.
- Project will cause erosion.
- Project will alter existing drainage patterns or watercourse.
- Project will increase flooding or flooding impacts.
- Project’s water usage not assessed in the Tulare County 2030 General Plan (General Plan Amendment, Zone Change, etc.).
- Project that will impact service levels of a Water Service District.
- Project includes or requires an expansion of a Water Service District.
- Project is in a flood zone.
- Project will create a flood safety hazard.
- Project located immediately downstream of a dam.
- Project will violate any water quality standards or waste discharge requirements.
- Project will 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).
- 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, in a manner which would result in substantial erosion or siltation on- or off-site. Project will substantially alter the

¹ CEQA Guidelines, Section 15126.2(a).

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.

- Project will 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 will 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.
- Project will place within a 100-year flood hazard area structures which would impede or redirect flood flows.
- Project will 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; and/or be subject to inundation by seiche, tsunami, or mudflow.

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.”²

“The Basin is one of the most important agricultural centers of the world. Industries related to agriculture, such as food processing and packaging (including canning, drying, and wine making), are prominent throughout the area. Producing and refining petroleum lead non-agricultural industries in economic importance.”³

The Tulare Lake Hydrologic Region has both watershed areas (surface water) and groundwater sub-basin areas.

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 tributaries); 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

² California Water Plan Update 2013, Tulare Lake Hydrologic Region Vol. 2 Regional Reports. Page TL-11. Accessed May 30, 2017 at: http://www.water.ca.gov/waterplan/docs/cwpu2013/Final/Vol2_TulareLakeRR.pdf

³ Water Quality Control Plan for the Tulare Lake Basin Second Edition Revised January 2015 (with Approved Amendments). Page I-

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.”⁴

The White River drainage is just south of the Tule River drainage. The Tule sub-basin includes the White River drainage, which is similar to the region described in the California Water Plan Update in the preceding paragraph, with west and southwest-flowing streams, creeks, drainages and irrigation facilities conveying surface water to the Valley floor.

“Surface water from the Tulare Lake Basin only drains north into the San Joaquin River in years of extreme rainfall. This essentially closed basin is situated in the topographic horseshoe formed by the Diablo and Temblor Ranges on the west, by the San Emigdio and Tehachapi Mountains on the south, and by the Sierra Nevada Mountains on the east and southeast.”⁵

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.”⁶ Specific objectives outlined in the Water Quality Control Plan are listed below:⁷

- **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 (NH₃) 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 MPN /100 ml, nor shall more than ten percent of the total number of samples taken during any 30-day period exceed 400 MPN /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.

⁴ California Water Plan Update 2013, Tulare Lake Hydrologic Region Vol. 2 Regional Reports. Page TL-12 thru -13.

⁵ Water Quality Control Plan for the Tulare Lake Basin Second Edition (Revised January 2015 (with Approved Amendments). Page I-1. Accessed May 30, 2017 at :http://www.waterboards.ca.gov/rwqcb5/water_issues/basin_plans/tlbp.pdf

⁶ Ibid. III-2.

⁷ Ibid. III-2 to III-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.

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.”⁸

⁸ General Plan Background Report. Page 10-7.

“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.”⁹

“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.”¹⁰

Ground Water Sub Basin

“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 [in the Water Quality Control Plan] shows the location of the alluvial groundwater basins and subbasins and Table TL-1 [in the Water Quality Control Plan] 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 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).”¹¹

The Project area is within the Tule sub-basin of the San Joaquin Valley Groundwater Basin within the Tulare Lake Hydraulic Region.

“Water agencies in the Tulare Lake region have been practicing conjunctive use for many years to manage groundwater and assist dry year supplies. Groundwater recharge is primarily from rivers and natural streambeds, irrigation water percolating below the root zone of irrigated fields, direct recharge from developed ponding basins and water banks, and in-lieu recharge where surface water is made available in-lieu of groundwater pumping. Some water agencies accomplish recharge by directing available water into existing natural streambeds and sloughs, and others encourage application of water, when available, on farmed fields. The Deer Creek and Tule River Authority provides an example of how groundwater management activities can be coordinated with other resources. The authority, in conjunction with the US Bureau of

⁹ California Water Plan Update 2009, Tulare Lake. Page TL-5.

¹⁰ Water Quality Control Plan for the Tulare Lake Basin Second Edition Revised January 2015 (with Approved Amendments). Page I-1.01.

¹¹ California Water Plan Update 2013, Tulare Lake. Page TL-13 to TL-16.

Reclamation, has constructed more than 200 acres of recharge basins as part of its Deer Creek Recharge-Wildlife Enhancement Project. When available, the project takes surplus water during winter months and delivers it to the basins, which serve as winter habitat for migrating waterfowl, creating a significant environmental benefit. Most of the water also recharges into the underlying aquifer, thereby benefiting the local groundwater system.”¹²

Groundwater Quality

Specific objectives outlined in the Water Quality Control Plan are listed below:

- **Bacteria:** In ground waters designated MUN, the concentration of total coliform organisms over any 7-day period shall be less than 2.2 MPN/100 ml.
- **Chemical Constituents:** Ground waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses.
- **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.¹³

According to the California Water Plan 2009, “Water quality issues relate to the relative impacts to the beneficial uses of water, including its drinking quality, use in irrigated agriculture, etc. Below are key water quality issues in this region. For further discussion, see Appendix B Water Quality [of the 2009 Water Plan].”¹⁴

“**Salinity:** Salinity is the primary contaminant affecting water quality and habitat in the Tulare Lake region. Because the groundwater basin in the San Joaquin Valley portion of the region is an internally drained and closed basin, salts, much of which are introduced into the basin with imported water supplies, build up in the soil and groundwater. Salt contained in the imported water supply is the primary source of salt circulating in the Tulare Lake region. The California Aqueduct, Friant-Kern Canal, and to a less extent Delta Mendota Canal supply most of the higher quality surface irrigation water in the Tulare Lake region. The quality of this supply may be impaired by the recirculation of salts from the San Joaquin River to the Delta Mendota Canal intake pump, leading to a greater net accumulation of salts in the basin. Delivery data from the two major water projects in California indicate there is a substantial amount of salt being transported from the Delta to other basins throughout the state. Annual import of salt into the Tulare Lake region is estimated to be 1,206 thousand tons of salt. In situ dissolution of salts and pumping from the underlying confined aquifer are important secondary sources.

Sedimentation and Erosion: In the Central Valley, erosion is occurring from the

¹² Ibid. TL-10.

¹³ Water Quality Control Plan for the Tulare Lake Basin Second Edition Revised January 2015 (with Approved Amendments). Pages III-7, III-7.01, and III-8.

¹⁴ California Water Plan Update 2009, Tulare Lake. Pages TL-24.

headwaters down to the valley floor. Although naturally occurring, erosion can be accelerated by timber harvest activities, land use conversion, rural development, and grazing. Excessive soil erosion and sediment delivery can impact the beneficial uses of water by (1) silting over fish spawning habitats; (2) clogging drinking water intakes; (3) filling in pools creating shallower, wider, and warmer streams and increasing downstream flooding; (4) creating unstable stream channels; and (5) losing riparian habitat. Timber harvesting in the riparian zone can adversely affect stream temperatures by removing stream shading, a concern for spawning and rearing habitat for salmonids. Thousands of miles of streams are potentially impacted, and the lack of resources has prevented a systematic evaluation of these impacts.

Nitrates and Groundwater Contaminates: Groundwater is a primary water supply, but in many places it is impaired or threatened because of elevated levels of nitrates and salts that are derived principally from irrigated agriculture, dairies, discharges of wastewater to land, and from disposal of sewage from both community wastewater systems and septic tanks. As population has grown, many cities have struggled to fund improvements in wastewater systems. High TDS content of west-side water is due to recharge of stream flow originating from marine sediments in the Coast Range.

Naturally-occurring arsenic and human-made organic chemicals—pesticides and industrial chemicals—in some instances have contaminated groundwater that is used as domestic water supplies in this region. In some cases, nitrates are from natural sources. Agricultural pesticides and herbicides have been detected throughout the valley, but primarily along the east side where soil permeability is higher and depth to groundwater is shallower. The most notable agricultural contaminant is DBCP, a now-banned soil fumigant and known carcinogen once used extensively on grapes.”¹⁵

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.”¹⁶

“Tulare Lake region’s groundwater use rises and falls contingent on the availability of both local and imported surface supplies. The management of water resources within this region is a complex activity and critical to the region’s agricultural operations. Local annual surface supplies are determined by the amount of runoff from the Sierra Nevada watersheds, the flows captured in local reservoirs, and carryover storage over a series of years. Imported surface supply availability is contingent not only on runoff in any year or series of years but also by regulations determining the amount of water that can be pumped month to month from the Sacramento-San Joaquin River Delta due to fishery and other concerns. The recent San Joaquin River settlement will reduce the overall volume of water available for diversion into the Friant-Kern Canal. The

¹⁵ California Water Plan Update 2009, Tulare Lake. Page TL-22 to TL-25.

¹⁶ Water Quality Control Plan for the Tulare Lake Basin Second Edition Revised January 2015 (with Approved Amendments). Page I-1.01.

new biological opinion on the Operating Criteria and Plan (OCAP) for the SWP and CVP will impact surface water supplies to south-of-Delta water users.”¹⁷

“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 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.”¹⁸

“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.”¹⁹

“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.”²⁰

According to the 2009 California Water Plan, the water storage has varied between 1998-2005, likely due to changing precipitation levels, as seen in Table 3.9-1 and Figure 3.9-1.

¹⁷ California Water Plan Update 2009, Tulare Lake. Page TL-15 to TL-17.

¹⁸ Tulare County General Plan 2030 Update, Background Report, February 2010. Page 10-11.

¹⁹ Department of Water Resources California Water Plan Update 2009, Tulare Lake, page TL-17.

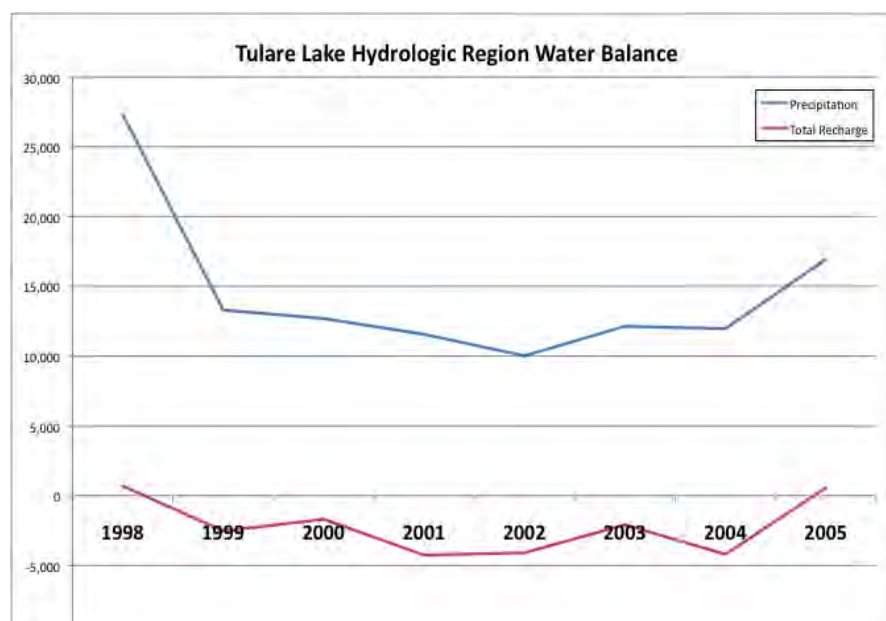
²⁰ Ibid. 19.

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Table 3.9-1²¹								
Tulare Lake Hydrologic Water Balance for 1998-2005 (thousand acre-feet)								
Tulare Lake Region	Water Year							
	1998	1999	2000	2001	2002	2003	2004	2005
Water Entering the Region								
Precipitation	27,306	13,298	12,693	11,564	10,021	12,137	11,964	16,939
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	3,716	4,817	5,627	3,696	4,239	5,174	4,816	5,909
Total	31,022	18,115	18,320	15,260	14,260	17,311	16,780	22,848
Water Leaving the Region								
Consumptive Use of Applied Water	5,401	7,486	7,427	7,591	7,938	7,430	8,031	6,655
Outflow to Oregon/Nevada/Mexico	0	0	0	0	0	0	0	0
Exports to Other Regions	1,857	821	1,540	1,093	1,643	1,898	1,961	1,724
Statutory Required Outflow to Salt Sink	0	0	0	0	0	0	0	0
Additional Outflow to Salt Sink	457	456	457	458	305	458	457	300
Evaporation, Evapotranspiration of Native Vegetation, Groundwater Subsurface Outflows, Natural and Incidental Runoff, Ag Effective Precipitation & Other Outflows	22,606	11,885	10,578	10,374	8,462	10,327	10,532	13,596
Total	30,321	20,648	20,002	19,516	18,348	20,113	20,981	22,274
Storage Changes in Region: [+] Water added to storage, [-] Water removed from storage								
Change in Surface Reservoir Storage	438	-595	-57	-141	-161	173	-199	680
Change in Groundwater Storage	263	-1,938	-1,625	-4,115	-3,927	-2,975	-4,002	-106
Total	701	-2,533	-1,682	-4,256	-4,088	-2,802	-4,201	574

(This table does not include dairy usage)

Figure 3.9-1²²



²¹ Ibid. 24.

²² Department of Water Resources, 2009. California Water Plan Update, Tulare Lake.

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“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.”²³ 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 may further decrease water demand, while Expansive Growth may increase water demand.

**Table 3.9-2
Irrigation Districts in Tulare County²⁴**

Entity	Surface Water	Imported Water Source	Groundwater Extraction
Alpaugh Irrigation District	NA	Friant-Kern Canal (1,000af avg.)	19,000 af
Alta Irrigation District	King River	Friant-Kern Canal (surplus)	230,000 af
Delano-Earlimart Irrigation District	NA	Friant-Kern Canal (146,050 af avg.)	8,000 af
Exeter Irrigation District	NA	Friant-Kern Canal (1,000 af avg.)	14,000 af
Hills Valley Irrigation District	NA	Cross Valley Canal (2,000 af avg.)	1,000 af
Ivanhoe Irrigation District	Kaweah River	Friant-Kern Canal (11,650 af avg.)	15,000 af
Kaweah Delta Water Cons. District	Kaweah River	Friant-Kern Canal (24,000 af avg.)	130,000 af
Kern-Tulare Water District	Kern River	Cross Valley Canal (41,000 af avg.)	33,000 af
Lindmore Irrigation District	NA	Friant-Kern Canal (44,000 af avg.)	28,000 af
Lower Tulare River Irrigation Dist.	Tule River	Friant-Kern Canal (180,200 af avg.) Cross Valley Canal (31,000 af avg.)	NA
Lindsay-Strathmore Irrigation Dist.	NA	Friant-Kern Canal (24,150 af avg.)	NA
Orange Cove Irrigation District	NA	Friant-Kern Canal (39,200 af avg.)	30,000 af
Pioneer Water Irrigation District	Tule River		3,000 af
Pixley Irrigation District	NA	Friant-Kern Canal (1,700 af avg.) Cross Valley Canal (31,000 af avg.)	130,000 af
Porterville Irrigation District	Tule River	Friant-Kern Canal (31,000 af avg.)	15,000 af
Rag Gulch Water District	Kern River	Friant-Kern Canal (3,700 af avg.) Cross Valley Canal (13,300 af avg.)	
Saucelito Irrigation District	Tule River	Friant-Kern Canal (37,600 af avg.)	15,000 af
Stone Corral Irrigation District	NA	Friant-Kern Canal (10,000 af avg.)	5,000 af
Teapot Dome Irrigation District	NA	Friant-Kern Canal (5,600 af avg.)	
Terra Bella Irrigation District	NA	Friant-Kern Canal (29,000 af avg.)	2,000 af
Tulare Irrigation District	Kaweah River	Friant-Kern Canal (100,500 af avg.)	65,000 af

²³ Tulare County General Plan 2030 Update, Background Report, February 2010. Page 10-11.

²⁴ Bookman-Edmonston Engineering Inc. Water Resources Management in the Southern San Joaquin Valley. Table A-1.

“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, all utilizing water from the Friant-Kern Canal and local streams. The Kings River Water Conservation District covers the western county.”²⁵ A table of irrigation districts in Tulare County is shown in **Table 3.9-2**.

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.”²⁶

“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;
- 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).”²⁷

²⁵ Ibid. 10-12.

²⁶ Department of Water Resources, 2009. California Water Plan Update, Tulare Lake. Page TL-17.

²⁷ Tulare County General Plan 2030 Update, Background Report, February 2010. Page 7-33.

Much of the County land is rural in nature and requires the use of private wells. If a project utilizes water from an existing irrigation district, then it will be up to the irrigation district to determine if the Project could potentially create a significant impact related to water supply. An example of a potential impact could involve a need for a significant increase in the service levels of an irrigation district.

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.”²⁸

“Flood events in the Tulare Lake region are caused by rainfall, snowmelt, and the resultant rising of normally dry lakes. Although significant progress has been made to contain floodwaters in the region, improvements to the flood control system are still needed to lessen the flood risk to life and property.”²⁹

“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.”³⁰

“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.”³¹

“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

²⁸ Ibid. 8-13.

²⁹ California Water Plan Update 2009, Tulare Lake. Page TL-28 to TL-29.

³⁰ Tulare County General Plan 2030 Update, Background Report, February 2010, page 8-14.

³¹ Ibid. 8-14.

electric-generating facilities and transmission lines associated with hydro-electric dams could also affect life support systems in communities outside the immediate hazard area.”³²

REGULATORY SETTING

Water in California is managed by a complex network of federal, state, and local regulations. California administers rights to surface water at the state level, but not rights to groundwater, which is managed under a variety of authorities including local governments. Major regulatory policies pertaining to domestic water management are summarized below.

Federal Agencies & Regulations

Clean Water Act and National Pollutant Discharge Elimination System Permit Program

“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.”³³

National Toxics Rule and California Toxics Rule

In 1992, pursuant to the CWA, EPA promulgated the National Toxic Rule (NTR) criteria to establish numeric criteria for priority toxic pollutants for California. The NTR established water quality standards for 42 pollutants not covered at that time under California’s statewide water quality regulations. As a result of a September 1994 court order that revoked California’s statewide water quality control plan for priority pollutants, EPA initiated efforts to promulgate additional numeric water quality criteria for California. In May 2000, EPA issued the California Toxics Rule (CTR), which promulgated numeric water quality criteria for California. The CTR documentation (Volume 65, pages 31682-31719 of the Federal Register [65 FR 31682-31719] May 18, 2000, along with amendments in February 2001) carried forward the previously promulgated standards of the NTR, thereby providing a single document listing California’s fully adopted water quality criteria for 126 priority pollutants.

³² Op. Cit. 8-17.

³³ EPA summary of the Clean Water Act – <http://www.epa.gov/lawsregs/laws/cwa.html>

Section 303 (d) Impaired Waters List

Section 303(d) of the CWA requires states to develop lists of water bodies (or sections of water bodies) that do not meet water quality standards after implementation of minimum required levels of treatment by point source discharges. Point sources include all sources subject to regulations under the National Pollutant Discharge Elimination System (NPDES) program, e.g. wastewater treatment facilities, some stormwater discharges and concentrated animal feeding operations. The intent of the Section 303(d) list is to identify water bodies that require future development of a Total Maximum Daily Load (TMDL) and associated implementation program to maintain water quality. Section 303(d) requires states to develop a TMDL for each of the listed pollutants and water bodies.³⁴

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 serving fewer than 25 individuals.)”³⁵

Environmental Protection Agency

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;
- 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;

³⁴ United States EPA, What is a TMDL? Web, accessed May 16, 2014,
<http://water.epa.gov/lawsregs/lawguidance/cwa/tmdl/overviewoftmdl.cfm#responsibility>

³⁵ EPA summary of the Safe Drinking Water Act – <http://water.epa.gov/lawsregs/rulesregs/sdwa/index.cfm>

- 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.”³⁶

U.S. Army Corps of Engineers

“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.”³⁷

Executive Order 11988: Floodplain Management

Executive Order 11988 requires federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, Executive Order 11988 states that “each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities.

“In 1968 [National Flood Insurance Act of 1968], Congress created the National Flood Insurance Program (NFIP) to help provide a means for property owners to financially protect themselves. The NFIP offers flood insurance to homeowners, renters, and business owners if their community participates in the NFIP. Participating communities agree to adopt and enforce ordinances that meet or exceed FEMA requirements to reduce the risk of flooding.”³⁸

State Agencies & Regulations

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

³⁶ U.S. Environmental Protection Agency; <http://www.epa.gov/aboutepa/whatwedo.html>

³⁷ Army Corps of Engineers <http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx>

³⁸ Flood Insurance Program Summary: http://www.floodsmart.gov/floodsmart/pages/about/nfip_overview.jsp

Control Boards (Regional Boards) to oversee water quality on a day-to-day basis at the local/regional level.”³⁹

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.”⁴⁰

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.”⁴¹

“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.”⁴²

California Anti-degradation Policy (SWRCB Resolution No. 68-16)⁴³

Resolution No. 68-16, which is also known as the Board’s Statement of Policy with Respect to Maintaining High Quality Waters in California, states, in part:

- Whenever the existing quality of water is better than the quality established in policies as the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any changes will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.

³⁹ Porter-Cologne Water Quality Control Act Summary, http://ceres.ca.gov/wetlands/permitting/Porter_summary.html

⁴⁰ State Water Board Website, http://www.waterboards.ca.gov/about_us/water_boards_structure/mission.shtm I

⁴¹ Ibid.

⁴² Central Valley Water Quality Control Board, http://www.swrcb.ca.gov/centralvalley/about_us/

⁴³ State Water Resources Control Board Resolution No. 68-16, http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/1968/rs68_016.pdf, Accessed, May 16, 2014

- Any activity which produces or may produce a waste or increased volume or concentration of wastewaters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

The State Water Resources Control Board has interpreted Resolution 68-16 to incorporate the federal anti-degradation policy, which is applicable if discharge that began after November 28, 1975, will lower existing surface water quality.

California Department of Water Resources⁴⁴

The Department of Water Resources' (DWR) primary 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. Other goals include:

- Goal 1 - Develop and assess strategies for managing the State's water resources, including development of the California Water Plan Update.
- Goal 2 - Plan, design, construct, operate, and maintain the State Water Project to achieve maximum flexibility, safety, and reliability.
- Goal 3 - Protect and improve the water resources and dependent ecosystems of statewide significance, including the Sacramento-San Joaquin Bay-Delta Estuary.
- Goal 4 - Protect lives and infrastructure as they relate to dams, floods, droughts, watersheds impacted by fire and disasters, and assist in other emergencies.
- Goal 5 - Provide policy direction and legislative guidance on water and energy issues and educate the public on the importance, hazards, and efficient use of water.
- Goal 6 - Support local planning and integrated regional water management through technical and financial assistance.
- Goal 7 - Perform efficiently all statutory, legal, and fiduciary responsibilities regarding management of State long-term power contracts and servicing of power revenue bonds.
- Goal 8 - Provide professional, cost-effective, and timely services in support of DWR's programs, consistent with governmental regulatory and policy requirements.

Local Policies & Regulations

Tulare County Division of Environmental Health (DEH)

"The Tulare County Division of Environmental Health [DEH] provides oversight of septic waste collection and disposal vehicles to help verify adherence to local ordinances. Staff permit, inspect, investigate complaints and monitor activities of businesses engaged in the cleaning and

⁴⁴ California Department of Water Resources website, <http://www.water.ca.gov/about/mission.cfm>

disposal of septic systems, grease traps and portable toilets.”⁴⁵ (see: <http://tularecountyeh.org/eh/index.cfm/our-services/liquid-waste/>).

“The Environmental Health Services Division oversees a variety of programs that relate to the health and safety of people and the environment such as: regulates retail food facilities (including restaurants, markets, bakeries, cottage food, public and private schools, mobile food facilities, temporary events (fairs and carnivals), vending machines and caterers” [see: <http://tularecountyeh.org/eh/index.cfm/our-services/food/>]⁴⁶; hazardous materials (such as facilities that 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) [see: <http://tularecountyeh.org/eh/index.cfm/our-services/hazardous-materials-cupa/>]⁴⁷; oversees the installation of water wells [see: <http://tularecountyeh.org/eh/index.cfm/our-services/water-wells/>]⁴⁸; permits and regulates State Small Water Systems [see: <http://tularecountyeh.org/eh/index.cfm/our-services/water-systems-program/>]⁴⁹; operates as the Local Enforcement Agency (LEA, which regulates landfills, transfer stations, composting sites and other specific solid waste activities) [see: <http://tularecountyeh.org/eh/index.cfm/our-services/solid-waste/>]⁵⁰; inspecting/permitting of dairies (Tulare County is one of eight counties in California designated as Approved Milk Inspection Services by the California Department of Food and Agriculture. Their mission is to ensure the safety and quality of dairy products consumed by the public through regulation and education; as such, Tulare County Registered Dairy Inspectors are responsible for the inspection and permitting of dairy farms located in Tulare and Kings County) [see <http://tularecountyeh.org/eh/index.cfm/our-services/dairy/>]⁵¹, among other duties.

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 would be added as mitigation measures to ensure reduction of environmental impacts.

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.

AG-1.10 Extension of Infrastructure into Agricultural Areas - The County shall oppose extension of urban services, such as sewer lines, water lines, or other urban infrastructure, into areas designated for agriculture use unless necessary to resolve a public health situation. Where necessary to address a public health issue, services should be located in public rights-of-way in

⁴⁵ Environmental Health Services Division website; accessed March 29, 2017 at: <http://tularecountyeh.org/eh/index.cfm/our-services/liquid-waste/>

⁴⁶ Ibid. see: <http://tularecountyeh.org/eh/index.cfm/our-services/food/>

⁴⁷ Op. Cit. see: <http://tularecountyeh.org/eh/index.cfm/our-services/hazardous-materials-cupa/>

⁴⁸ Op. Cit. see: <http://tularecountyeh.org/eh/index.cfm/our-services/water-wells/>

⁴⁹ Op. Cit. see: <http://tularecountyeh.org/eh/index.cfm/our-services/water-systems-program/>

⁵⁰ Op. Cit. see: <http://tularecountyeh.org/eh/index.cfm/our-services/solid-waste/>

⁵¹ Tulare County Environmental Health Division, <http://www.tularehhsa.org/index.cfm/public-health/environmental-health/>

order to prevent interference with agricultural operations and to provide ease of access for operation and maintenance. Service capacity and length of lines should be designed to prevent the conversion of agricultural lands into urban/suburban uses.

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.

WR-1.1 Groundwater Withdrawal - The County shall cooperate with water agencies and management agencies during land development processes to help promote an adequate, safe, and economically viable groundwater supply for existing and future development within the County. These actions shall be intended to help the County mitigate the potential impact on ground water resources identified during planning and approval processes.

WR-1.5 Expand Use of Reclaimed Wastewater - To augment groundwater supplies and to conserve potable water for domestic purposes, the County shall seek opportunities to expand groundwater recharge efforts

WR-1.6 Expand Use of Reclaimed Water - The County shall encourage the use of tertiary treated wastewater and household gray water for irrigation of agricultural lands, recreation and open space areas, and large landscaped areas as a means of reducing demand for groundwater resources.

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-2.8 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-3.6 Water Use Efficiency - The County shall support educational programs targeted at reducing water consumption and enhancing groundwater recharge.

WR-1.5 Expand Use of Reclaimed Wastewater - To augment groundwater supplies and to conserve potable water for domestic purposes, the County shall seek opportunities to expand groundwater recharge efforts.

PFS-1.8 Funding for Service Providers - The County shall encourage special districts, including community service districts and public utility districts to:

1. Institute impact fees and assessment districts to finance improvements,
2. Take on additional responsibilities for services and facilities within their jurisdictional boundaries up to the full extent allowed under State law, and
3. Investigate feasibility of consolidating services with other districts and annexing systems in proximity to promote economies of scale, such as annexation to city systems and regional wastewater treatment systems.

PFS-1.13 Municipal Service Reviews (MSRs) - The County shall use MSRs adopted by LAFCo and Urban Water Management Plans, as tools to assess the capacity, condition, and financing of various public utility services provided by special districts and cities, most commonly, domestic water and sanitary sewer.

PFS-3.3 New Development Requirements - The County shall require all new development, within UDBs, UABs, Community Plans, Hamlet Plans, Planned Communities, Corridor Areas, Area Plans, existing wastewater district service areas, or zones of benefit, to connect to the wastewater system, where such systems exist. The County may grant exceptions in extraordinary circumstances, but in these cases, the new development shall be required to connect to the wastewater system when service becomes readily available.

PFS-3.7 Financing - The County shall cooperate with special districts when applying for State and federal funding for major wastewater related expansions/upgrades when such plans promote the efficient solution to wastewater treatment needs for the area and County.

FGMP-8.4 Development of Wastewater Systems - The County shall ensure that new wastewater systems meet the standards of the Regional Water Quality Control Board and Tulare County Health & Human Services.

FGMP-9.2 Provision of Adequate Infrastructure - The County shall require evidence, prior to project approval, which (1) describes a safe and reliable method of wastewater treatment and

disposal; and (2) substantiates an adequate water supply for domestic and fire protection purposes.

FGMP-9.5 Alternate Sewage Disposal - The County may allow unconventional methods of disposing of sewage effluent, provided the system meets the performance standards of the Water Quality Control Board and the Tulare County Health and Human Services Agency. Such systems may include, but are not limited to common leach field, soil absorption mounds, aerobic septic tanks, or evapotranspiration systems.

IMPACT EVALUATION

Will the project:

a) Violate any water quality standards or waste discharge requirements?

Project Impact Analysis: *Less Than Significant Impact*

Stormwater (Surface Water Quality)

The Project would result in the installation of underground pipelines that would not result in increased runoff. The pipelines would be constructed within existing road rights-of-way which typically collect stormwater runoff from the roadways. No chemicals would be used in the construction or operation of the pipelines that could be discharged into surface water. Therefore, ***No Project-specific Impact*** would occur.

Ground Water Quality

The proposed wastewater pipelines would not require the construction of a new well. Minimal water may be used during construction phases for dust suppression. No chemicals will be used in the construction or operation of the pipelines that could be discharged into ground water. Therefore, ***Less Than Significant Project-specific Impacts*** to groundwater would occur.

Cumulative Impact Analysis: *No Impact*

As noted earlier, the Project would require a minimal amount of water to be used during the construction activity phases for dust suppression. Construction and operation of the pipelines would not result in stormwater runoff or the potential for surface or groundwater contamination. No chemicals would be used in the construction or operation of the pipelines that could be discharged into surface or ground water. Therefore, the Project would result in ***No Cumulative Impacts*** to surface or groundwater quality.

Mitigation Measure(s): *None Required*

Conclusion:

Less Than Significant Impact

As noted earlier, Project-specific impacts would be ***Less Than Significant*** and ***No Cumulative Impacts*** related to this Checklist Item would occur.

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will 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 will drop to a level which will not support existing land uses or planned uses for which permits have been granted)?**

Project Impact Analysis:

Less Than Significant Impact

The proposed wastewater pipelines would not require the construction of a new well. “The Matheny Tract’s water supply is provided by Pratt Mutual Water Company. PMWC is classified as a community water system and serves a population of 1,212 people. PMWC provides water through two wells on a closed-loop system; the system provides both domestic and fire suppression supplies. The water system is served solely by groundwater.”⁵² As a result of this Project, the rate/usage of water currently used for septic systems is not anticipated to change; rather, the wastewater discharge will be directed to the wastewater collection system ultimately reaching the City of Tulare Waste Water Treatment Plan (WWTP). Also, minimal water may be used during construction phases for dust suppression. Therefore, Project-specific impacts would be ***Less Than Significant***.

Cumulative Impact Analysis:

Less Than Significant Impact

As noted above, the proposed wastewater pipelines would not require the construction of a new well. Minimal water may be used during construction phases for dust suppression. Therefore, ***Less Than Significant*** cumulative impacts to groundwater would occur.

Mitigation Measure(s):

None Required

Conclusion:

Less Than Significant Impact

As noted earlier, Project-specific and cumulative impacts would be ***Less Than Significant*** related to this Checklist Item.

- 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 will result in substantial erosion or siltation on- or off-site?**

Project Impact Analysis:

No Impact

⁵² Project Feasibility Report, Matheny Tract Wastewater System, Tulare County, California 2016. Page 9.

The proposed underground pipelines would not result in increased runoff. The pipelines would be constructed within existing road rights-of-way which are highly disturbed and typically collect stormwater runoff from the roadways. Following construction-related activities, the trenches would be backfilled and restored to roadways and gravel roadway shoulders. Therefore, the Project would not 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. There would be ***No Project-specific Impact***.

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

The Project would not 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. Therefore, ***No Cumulative Impacts*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would occur.

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 will result in flooding on- or off-site?

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

The proposed underground pipelines would not result in increased runoff. The pipelines would be constructed within existing road rights-of-way which are highly disturbed and typically collect stormwater runoff from the roadways. Following construction-related activities, the trenches would be backfilled and restored to roadways and gravel roadway shoulders. Therefore, the Project would not 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. Therefore, there would be ***No Project-specific Impact***.

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

The Project would not 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. Therefore, ***No Cumulative Impacts*** would occur.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item would occur.

e) Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Project Impact Analysis: *No Impact*

The extent of erosion on a site would typically vary depending upon slope steepness and stability, vegetation, percentage of cover, concentration of runoff, and weather conditions. The proposed underground pipelines would not result in increased runoff. The pipelines would be constructed within existing road rights-of-way which are highly disturbed and typically collect stormwater runoff from the roadways. Following construction-related activities, the trenches would be backfilled and restored to roadways and gravel roadway shoulders. Therefore, the Project would not 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. As such, *No Project-specific Impacts* would 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 the Central Valley Regional Water Quality Control Board. As such, *No Cumulative Impacts* would occur.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item would occur.

f) Otherwise substantially degrade water quality?

Project Impact Analysis: *No Impact*

The Project does not include elements that could degrade water quality. Therefore, *No Project-specific Impacts* would 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 the Central Valley Regional Water Quality Control Board.

As noted earlier, the Project does not include elements that could degrade water quality. Therefore, *No Cumulative Impacts* would occur.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item would occur.

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?

Project Impact Analysis: *No Impact*

The Project does not include the construction of any housing units. Therefore, *No Project-specific Impacts* would 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, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

As noted earlier, the Project does not include any housing units. Therefore, *No Cumulative Impacts* would occur.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item would occur.

h) Place within a 100-year flood hazard area structures which will impede or redirect flood flows?

Project Impact Analysis: *Less Than Significant Impact*

As shown in the Feasibility Report's Appendix A (FEMA - FIRM Exhibits), the Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FIRM) numbers 06107C1262E and 06107C1275E identify all of Matheny Tract North and South in a Flood Zone X (unshaded) classification⁵³. Both flood Zone X (shaded or unshaded) designations are considered moderate to minimal risk areas for flood occurrence. Areas designated Flood Zone X (unshaded) are defined as locations of "Minimal risk areas outside the 1-percent and 0.2-percent-annual-chance floodplains. No BFEs or base flood depths are shown within these zones. (Zone X (unshaded) is used on new and revised maps in place of Zone C). As such, potential for flooding in these areas is considered as a minimal risk. Therefore, Project-specific impacts would be ***Less Than Significant***.

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 Project would not have off-site impacts related to flooding. In addition, the Project would not induce additional flooding hazards, on-site or off-site. Therefore, ***No Cumulative Impacts*** would occur.

Mitigation Measure(s): ***None Required***

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

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

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?

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

"Two major dams could cause substantial flooding in Tulare County in the event of a failure: Terminus Dam and Success Dam. In addition, there are many smaller dams throughout the county that will cause localized flooding in the event of their failing."⁵⁴

The Project area is not within the inundation areas for Terminus or Success Dams. In addition, the Project does not involve water storage or changing the alignment of an established watercourse. Therefore, ***no Project-specific impacts*** would occur.

⁵³ FEMA Map Service Center, Definitions of FEMA Flood Zones, For FIRM number 06107C1262E see <http://map1.msc.fema.gov/idms/IntraView.cgi?KEY=95657699&IFIT=1>; for FIRM number 06107C1275 E see: <http://map1.msc.fema.gov/idms/IntraView.cgi?KEY=96011768&IFIT=1>

⁵⁴ Tulare County General Plan 2030 Update, Background Report, February 2010. Page 8-17.

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.

As noted earlier, the Project is not within the inundation area for either major dam in Tulare County. The Project would not have any impacts either on-site or on other off-site parcels. Therefore, ***No Cumulative Impacts*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would occur.

j) Inundation by seiche, tsunami, or mudflow?

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

The Project area is not near any major body of water. The pipelines would be constructed within existing road rights-of-way which are highly disturbed and typically collect stormwater runoff from the roadways. Following construction-related activities, the trenches would be backfilled and restored to roadways and gravel roadway shoulders. Therefore, ***no Project-specific impact*** would 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, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

As noted earlier, the Project is not located near a large body of water, the coast or hillsides. Therefore, ***No Cumulative Impacts*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would occur.

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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)” which was accessed June 15, 2017 at:

http://www.waterboards.ca.gov/rwqcb5/water_issues/basin_plans/tlbp.pdf

Central Valley Water Quality Control Board, which was accessed June 15, 2017 accessed at:

http://www.swrcb.ca.gov/centralvalley/about_us/

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<https://msc.fema.gov/webapp/wcs/stores/servlet/info?storeId=10001&catalogId=10001&langId=-1&content=floodZones&title=FEMA%2520Flood%2520Zone%2520Designations>

FEMA FIRM maps for the Project area was accessed June 15, 2017 at: for FIRM number

06107C1262E see <http://map1.msc.fema.gov/idms/IntraView.cgi?KEY=95657699&IFIT=1>; for FIRM number 06107C1275 E see:

<http://map1.msc.fema.gov/idms/IntraView.cgi?KEY=96011768&IFIT=1>

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Chapter 3.10

Land Use and Planning

SUMMARY OF FINDINGS

The Preferred/Proposed Project would result in *No Impact* to Land Use and Planning. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 4, Lindsay option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. 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 Land Use and Planning. As required in CEQA Guidelines Section 15126, all phases of the Project would 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.”¹

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 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 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 and established community
- Conflict with applicable land use plan policy, or regulation of an agency with jurisdiction over the Project
- Conflict with an applicable habitat conservation plan

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. In addition to its agricultural production, the County’s economic base also includes agricultural packing and shipping operations. Small and medium-sized 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.

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 generally comprises 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.

“Land use in Tulare County is predominately agriculture, and the County is committed to retaining the rich agricultural land. The foothill and mountain regions are controlled

¹ CEQA Guidelines, Section 15126.2 (a)

predominantly by the State and federal governments. However, as population increases, so does the demand for new housing, retail and commercial space. Agricultural land around the cities is being converted into urban uses. Housing, land, employment and economics are balanced to minimize the amount of agricultural land taken by development. Economic principles tend to take precedence over the conservation of land.”

“Tulare County has been one of the faster growing counties in the state. Since 1950, its annualized growth rate is 1.8% (2.0% since 1980). Population growth has been primarily in the incorporated cities versus the unincorporated county...”²

As indicated in the 2014 Regional Transportation Plan & Sustainable Communities Strategy, Draft Environmental Impact Report (SCH #2012081070); “Tulare County is predominantly rural, and settlement patterns reflect this fact. Approximately 32% of the county’s population of 455,599 people, live outside the county’s eight incorporated areas (California Department of Finance, 2013). There are 21 unincorporated communities in Tulare County. Recent trends have led to housing, jobs, shopping, and recreational opportunities developing in separate locations. As a result of the separated development of jobs and housing, the urban area has grown in a way that forces people to travel from one area to another. The relatively large distances between the county’s population centers require well-maintained rural highways, many of which are the focus of RTP projects.

As of December 2012, about 174,900 people were employed in Tulare County and the unemployment rate was 15.7% (California Employment Development Department, 2013). By comparison, the statewide unemployment rate was 9.7% during that month, while the national rate was only 7.6%.

TCAG Traffic Model projections indicate that population in the Tulare County region is expected to grow from 466,008 people in 2010 to 700,832 by the year 2035 for an increase of approximately 50 percent. Between 2010 and 2035 employment is expected to increase by over 85,000 jobs or by almost 46 percent (TCAG, April 2010).”³

As of May 1, 2017, population estimates produced annually by the Department of Finance calculated Tulare County with a population estimate of 466,563 residents⁴. The State Controller’s Office uses Finance’s estimates to update their population figures for distribution of state subventions to cities and counties, and to comply with various state codes. Additionally, estimates are used for research and planning purposes by federal, state, and local agencies, the academic community, and the private sector.

Existing Site Conditions

² 2011 California Department of Finance, <http://www.dof.ca.gov/research/demographic/>

³ 2014 RTR/SCS PEIR. Page 4.10-2.

⁴ California Department of Finance, May 1, 2017 E-1 Population Estimates for Cities, Counties, and the State – January 1, 2016 and 2017 Accessed June 6, 2017. <http://dof.ca.gov/Forecasting/Demographics/Estimates/E-1/>

Tulare County Urban Development Boundaries

“Urban Development Boundaries (UDB) is a development boundary drawn around cities and unincorporated communities. For cities, the UDB is an officially adopted and mapped County line delineating the area expected for urban growth over a 20-year period. The UDB is located outside of the city limits but within the Urban Area Boundary (UABs). UABs are described below. For the unincorporated communities, the UDB is a County adopted line that divides land to be developed from land to be protected for agricultural, natural, or rural uses. The area within the UDB serves as the official planning area for communities over a 20 year period. The General Plan 2030 Update assumes that a majority of future growth will occur within the [County Adopted City Urban Development Boundaries] (CACUDBs) for the County’s cities and communities.”⁵ See **Figure 3.10-1**.

Tulare County Urban Area Boundaries

“Urban Area Boundaries (UAB) are officially adopted and illustrated by a boundary diagram showing the County lines around incorporated cities. An UAB is located outside of the UDB and the incorporated city limits. The UABs establish areas around incorporated cities where the County and cities may coordinate plans, policies, and standards relating to building construction, parcel mapping, subdivision development, land use and zoning regulations, street and highway construction, public utility systems, and other closely related matters affecting the orderly development of incorporated city urban fringe areas. The area between the UDB and the UAB is considered to be the next logical area in which urban development may occur. Although it is the intent of the General Plan that this area will at some time become appropriate for urban development, generally no public purpose is served by permitting intensive development therein. As cities grow and expand, it is logical to assume the UDBs will be correspondingly expanded or established until they coincide with the UAB. The land lying between the UDB and the UAB is typically designated as rural residential, agriculture, and may include existing grandfathered land uses.”⁶ See **Figure 3.10-1** of this DEIR.

The Tulare County General Plan identifies the unincorporated community of Matheny Tract as within the Urban Area Boundary (UAB) of the City of Tulare. “A UAB is considered as the next logical area of expansion beyond was defined as the ultimate growth boundary for each city or community.”⁷ “The UAB establishes 20-year ultimate growth boundary within which the County and community may coordinate plans and policies relating to land development, street and highway construction, public utility systems, and future right-of-way preservation for orderly development.”⁸ “Allowable land use types within UABs generally include: Valley Agriculture, Resource Conservation, and Rural Residential.”⁹ This project is not intended to accommodate new development; rather, it is an effort to provide an already established

⁵ Tulare County General Plan 2030 Update Recirculated Draft EIR. Page 2-17. Available at: [http://generalplan.co.tulare.ca.us/documents/GP/002Board%20of%20Supervisors%20Materials/002Resolution%20No.%202012-0696%20\(FEIR\)/002Exhibit%201.%20FEIR%20Exec.%20Summary%20&%20Chap%201-6/Recirculated%20Draft%20EIR.pdf](http://generalplan.co.tulare.ca.us/documents/GP/002Board%20of%20Supervisors%20Materials/002Resolution%20No.%202012-0696%20(FEIR)/002Exhibit%201.%20FEIR%20Exec.%20Summary%20&%20Chap%201-6/Recirculated%20Draft%20EIR.pdf)

⁶ Ibid. 2-18.

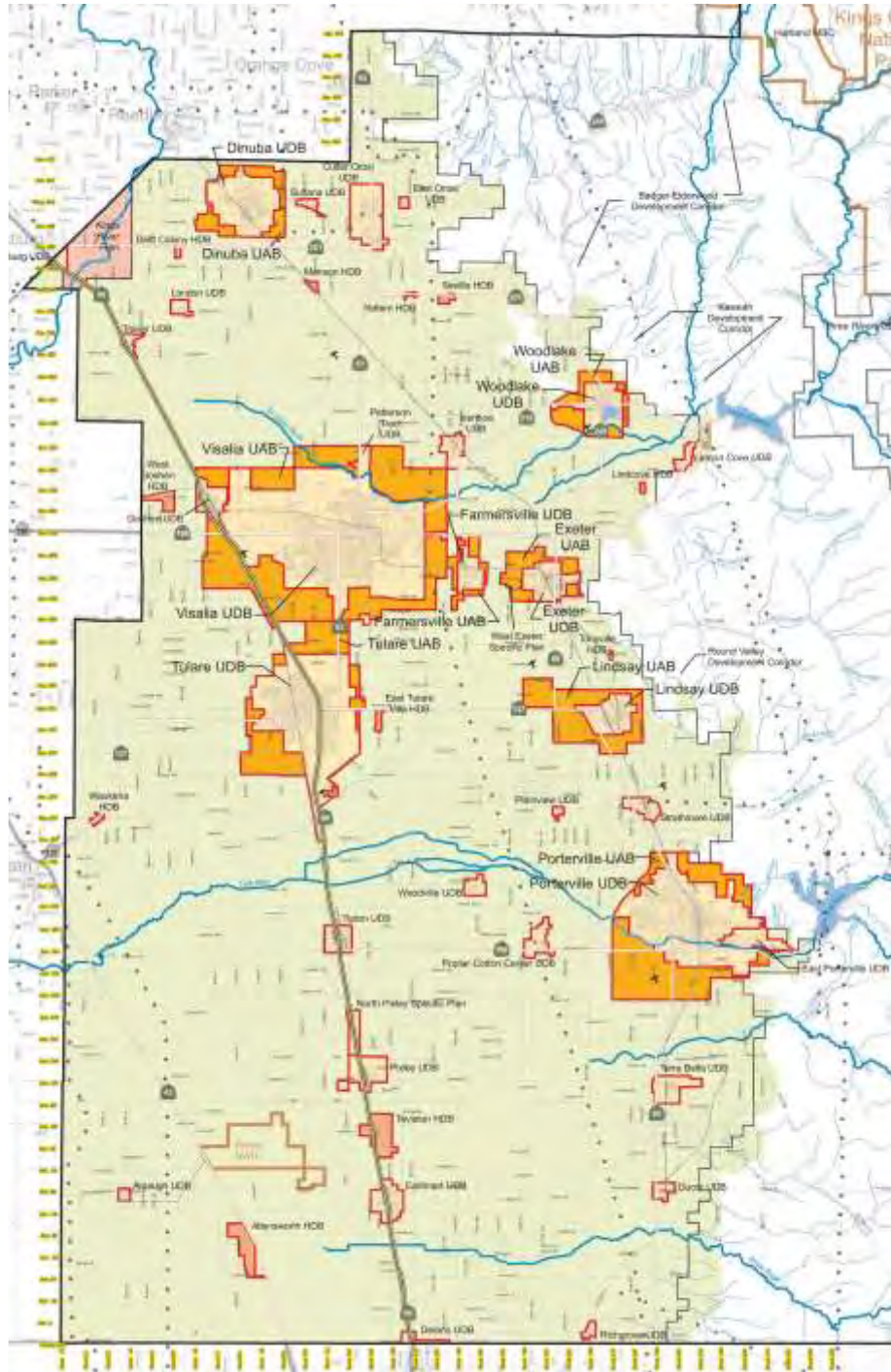
⁷ Op. Cit.

⁸ Op. Cit.

⁹ Op. Cit.

community with a wastewater collection system with ultimate connection to the City of Tulare's WWTP via a main line along Pratt Street (Road 96).

Figure 10.3-1



City of Tulare

As defined in the City of Tulare General Plan 2035; “The UDB is identified in response to the requirements of the Tulare County Local Agency Formation Commission and identifies the amount of land needed to accommodate a 20-year development horizon.”¹⁰ As shown in the City’s General Plan (Figure 2-1 Unincorporated Communities Around Tulare, page 2-8 of the City’s General Plan), Matheny Tract is outside of both the City’s Limit and 2035 UDB; but within the City’s Sphere of Influence (SOI) and also shown as a Disadvantage Community ¹¹. The City’s General Plan also include Figure 2-2 (2035 General Plan Land Use Map) which shows the City’s land use pattern, City Limit, and 2035 Urban Development Boundary.¹² Note the Light Industrial land use designation north of North Matheny (immediately adjacent to the existing northernmost residential development) and Heavy Industrial land use designation east and southeast of the existing east/southeast residential development.

According to the City of Tulare General Plan, the Light Industrial designation is described as; “This designation establishes areas for a range of non-intensive business park, industrial park, and warehouse uses that do not have detrimental noise or odor impacts on surrounding urban uses. Uses typically allowed include warehousing, welding and fabrication shops, and business support uses such as retail or eating establishments that serve adjacent light industrial uses and employees.

Maximum Density	0.6 FAR
Minimum Lot Size	20,000 Square Feet” ¹³

The Heavy Industrial designation is described as; “This designation establishes areas for the full range of industrial uses, which may cause noise or odor impacts on surrounding urban uses. Uses typically allowed include manufacturing, processing, fabrication, trucking terminals, ethanol plants, warehouses, asphalt batch plants, mills, lumber yards, and aggregate mining operations and support uses such as retail or eating establishments that support adjacent industrial uses and employees.

Maximum Intensity	0.4 FAR
Minimum Lot Size	40,000 Square Feet” ¹⁴

The potential connection to City of Tulare’s WWTP is consistent with the City’s General Plan Policy LU-P2.8 Regional Cooperation, to wit; “The City shall maintain a cooperative relationship with other local governments (i.e. Tulare County, the City of Visalia) to address regional issues and opportunities related to growth, transportation, infrastructure, greenhouse gas emissions reductions, and other planning issues.”¹⁵

¹⁰ City of Tulare General Plan 2035. Page 2-5; which can be accessed at: <http://www.tulare.ca.gov/home/showdocument?id=2393>

¹¹ Ibid. 2-8.

¹² Op. Cit. 2-13.

¹³ Op. Cit. 2-20.

¹⁴ Op. Cit.

¹⁵ Op. Cit. 2-26.

The City of Tulare General Plan acknowledges water service in Matheny Tract as; “Pratt Mutual Water Company serves the Matheny Tract. Water quality is an issue in the Matheny Tract due to arsenic levels off 15.7 micrograms per liter, which exceeds the State minimum of 10 micrograms per liter. The City of Tulare and Self-Help Enterprises, a local non-profit housing group, obtained State funding to improve the Matheny Tract’s water infrastructure so it can be connected to the City of Tulare’s water infrastructure.”¹⁶

Also as noted in the City of Tulare General Plan regarding wastewater service; “All of the disadvantaged and non-disadvantaged communities adjacent to the City of Tulare use individual septic systems to dispose of wastewater. The County of Tulare is currently working on a project, funded by a Proposition 84 planning grant, to connect the Matheny Tract to the City’s wastewater system.”¹⁷

Matheny Tract directly abuts the City of Tulare city limit line and lies generally south of Paige Avenue (Avenue 216), east of Pratt Street (Road 96) and west of “I” Drive and State Route 99. Matheny Tract is located just west of industrial land uses and a Union Pacific Railroad line running through Tulare County. Physically, the Community of Matheny Tract is divided by agricultural fields and an irrigation canal that separate approximately 256 households in North Matheny from 80 households in South Matheny. The Matheny Tract Community is predominantly surrounded by agricultural land.

Overall, Matheny Tract is primarily a bedroom community with a majority of land uses consisting of single-family detached residential units. Matheny Tract has paved roads which provide adequate circulation access to all areas of the community. Matheny Tract’s vehicular traffic is controlled via 4-way or 3-way stop signs at key intersections. As an unincorporated community, Matheny Tract is predominantly residential, neighborhood commercial, religious establishments, and limited industrial areas similar to the type of land uses found in incorporated places within Tulare County.

As described in the *Project Feasibility Report, Matheny Tract Wastewater System, Tulare County, California 2016*. (Feasibility Report or Report), “Matheny Tract is a community primarily comprised of rural residential properties with single-family dwelling units. The area has paved roads which are owned and maintained by the County of Tulare and provide sufficient circulation throughout the community. The County of Tulare is the agency that determines property land use and zoning; however, the area is also considered in the City of Tulare’s General Plan.”¹⁸ Of the 302 parcels included in this project, all but 10 are zoned R-A-M (Rural Residential, Special Mobil home Zone). Five (5) parcels are zoned R-2 (Two Family Residential Zone); one (1) parcel is zoned C-1 (Neighborhood Commercial Zone); two (2) parcels are zoned C-2-M (General Commercial, Special Mobil home Zone); and two (2) parcels are zoned C-2 (General Commercial Zone). See **Figure 3.10-2** Existing Zoning – Matheny Tract.

¹⁶ Op. Cit. 2-10.

¹⁷ Op. Cit.

¹⁸ Final Project Feasibility Report Matheny Tract Wastewater System Tulare County, California. Page 5. Prepared by Provost & Pritchard Consulting Group February 2016

Matheny Tracts consists mainly of single-family homes fronting on existing paved County road rights-of-way with dirt shoulders (i.e.; without curb and gutter) with surrounding land uses in the agricultural production. Similarly, surrounding areas are served by semi-rural paved, two-lane roads with rough-graded, unpaved, gravel shoulders. All proposed pipelines would be installed within existing County rights-of-way. Occasionally, pipelines would require trenching across paved roadways to connect to other components of the pipeline infrastructure, as is the case with the inter-tie with the existing City of Tulare wastewater treatment plant main pipeline at the intersection of Paige Avenue (Avenue 216) and Pratt Street (Road 96). At least one lift station (or other appurtenant structures) will be necessary for the project; final engineering and design would determine a surface or subsurface location.

Figure 3.10-2
Existing Zoning – Matheny Tract



REGULATORY SETTING

Federal Agencies & Regulations – None that apply to the Project.

State Agencies & Regulations– None that apply to the Project.

Local Policy & Regulations

County of Tulare Land Agency Formation Commission (LAFCO) – Standards for the Formation of Special Districts¹⁹

Tulare County LAFCO, Policy and Procedure Manual, Section C - Policy and Procedures for Reviewing Proposals, §1.7 Standards for Formation of Special Districts sets forth procedure for establishing and revising local government boundaries. The range of procedures includes judicial approval, special state legislation, and the use of “boundary commissions” local required for creation of new special districts. The following criteria are included in § 1.7 Standards for the Formation of Special Districts:

- A. There is a demonstrated need for services or controls that can be provided by a special district.
- B. There is no alternative that would provide for the required service in a more reasonable manner.
- C. There will be sufficient revenue to adequately finance the required services or controls.
- D. The proposal does not represent a conflict with the reasonable and logical expansion of adjacent governmental agencies.
- E. The boundary configurations will not create or result in areas difficult to serve.
- F. The boundaries of the proposed formation must be definite and certain and must conform to lines of assessment whenever possible.
- G. The boundaries must not conflict with boundaries of other public agencies possessing the same powers unless properly justified.

The preferred project would not require formation of a special district as the objective is to connect with the City of Tulare’s wastewater treatment plant via a main pipeline to the City’s existing wastewater collection system.

Tulare County Association of Governments

“The Tulare County Association of Governments (TCAG) is responsible for overseeing and planning projects with the county and each of its cities, helping to bring tax money back home to fund bus service, road improvements, projects that will improve our air quality, and more.”²⁰ TCAG’s 2009 Regional Blueprint includes a goal of a 25% increase in land use densities

¹⁹ Tulare County Local Agency Formation Commission, Policy and Procedure Manual. Page 35. Accessed May 20, 2014, <http://co.tulare.ca.us/lafco/documents/PolicyProcedure.pdf>

²⁰ Tulare County Council of Governments (TCAG) Website, <http://www.tularecog.org/>

facilitated with urban growth and expansion of transportation facilities²¹. The project would not be counter to any goals contained in the Regional Blueprint as it is limited to construction of a wastewater collection system and ultimate connection to the City of Tulare's wastewater treatment plant via a main pipeline to the City's existing wastewater collection system. There is no planned growth involved with the project.

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.

PF-6.4 UDBs and Interagency Coordination - The County shall use UDBs to provide a definition of an urban area for other planning programs, such as:

1. The area within the UDB should be considered as the same area for which water and sewer system planning may be needed and to be a consideration in the determination of an area required to adequately assess the availability and sufficiency of water supplies.
2. UDBs should be used to define traffic analysis zones in the Regional Transportation Plan program.
3. The UDBs shall be used to provide a framework for inventories on growth and development, as well as socio-economic data

AG-1.10 Extension of Infrastructure into Agricultural Areas - The County shall oppose extension of urban services, such as sewer lines, water lines, or other urban infrastructure, into areas designated for agriculture use unless necessary to resolve a public health situation. Where necessary to address a public health issue, services should be located in public rights-of-way in order to prevent interference with agricultural operations and to provide ease of access for operation and maintenance. Service capacity and length of lines should be designed to prevent the conversion of agricultural lands into urban/suburban uses.

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-2.4 Construction Site Sediment Control - The County shall continue to enforce provisions to control erosion and sediment from construction sites.

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.

²¹ TCAG - Tulare County Regional Blueprint. Page 19. Accessed May 20, 2014, <http://valleyblueprint.org/files/Tulare050109.pdf>

PFS-1.5 Funding for Public Facilities - The County shall implement programs and/or procedures to ensure that funding mechanisms necessary to adequately cover the costs related to planning, capital improvements, maintenance, and operations of necessary public facilities and services are in place, whether provided by the County or another entity.

PFS-3.4 Alternative Rural Wastewater Systems - The County shall consider alternative rural wastewater systems for areas outside of community UDBs and HDBs that do not have current systems or system capacity. For individual users, such systems include elevated leach fields, sand filtration systems, evapotranspiration beds, osmosis units, and holding tanks. For larger generators or groups of users, alternative systems, including communal septic tank/leach field systems, package treatment plants, lagoon systems, and land treatment, can be considered.

PFS-3.5 Wastewater System Failures - The County shall require landowners to repair failing septic tanks, leach field, and package systems that constitute a threat to water quality and public health or connect to an existing community system through applicable County and/or Regional Water Quality Control Board standards and requirements.

Tulare County Zoning

As noted earlier, of the 302 parcels included in this project, all but 17 are zoned R-A-M (Rural Residential, Special Mobil home Zone). Five (5) parcels are zoned AE-20 (Exclusive Agriculture Zone – 20 Acre Minimum); five (5) parcels are zoned R-2 (Two Family Residential Zone); one (1) parcel is zoned C-1 (Neighborhood Commercial Zone); two (2) parcels are zoned C-2-M (General Commercial, Special Mobil home Zone); and three (3) parcels are zoned C-2 (General Commercial Zone). Many Tracts consists of several Tulare County zone districts including: A-1 (Agriculture Zone), C-1 (Neighborhood Commercial), M-1 (Light Manufacturing), and R-A (Rural Residential Zone). Rural Residential is the largest zone district within the County designated Matheny Tract Urban Area Boundary (UAB). Lands outside the Matheny Tract UAB are identified as agricultural in nature within the County’s jurisdiction to the west and south; and City of Tulare industrial zones to the north and east. Although Matheny Tract does not have a land use designation by the Rural Valley Lands Plan, the area outside Matheny Tract is designated Agricultural lands by the Tulare County General Plan Land Use Map and as light and heavy industrial by the City of Tulare General Plan Land Use Map. The preferred project would not result in any changes to zoning districts or land use designations as the objective is to connect with the City of Tulare’s wastewater treatment plant via a main pipeline to the City’s existing wastewater collection system.

As noted earlier, the potential connection to City of Tulare’s WWTP is consistent with the City’s General Plan Policy LU-P2.8 Regional Cooperation, to wit; “The City shall maintain a cooperative relationship with other local governments (i.e. Tulare County, the City of Visalia) to address regional issues and opportunities related to growth, transportation, infrastructure, greenhouse gas emissions reductions, and other planning issues.”²²

²² City of Tulare General Plan 2035. Page 2-26; which can be accessed at: <http://www.tulare.ca.gov/home/showdocument?id=2393>.

IMPACT EVALUATION

Would the project:

a) Physically divide an established community?

Project Impact Analysis: *No Impact*

The proposed construction of an underground wastewater pipelines does not have the potential to physically divide an established community. The pipelines would be constructed within existing road rights-of-way which are highly disturbed and typically collect stormwater runoff from the roadways. The wastewater pipelines would be trenched in areas generally consisting of gravel road shoulders. Occasionally, pipelines would require trenching through paved roadways to connect to other components of the pipeline infrastructure, as is the case with the inter-tie with existing Tulare wastewater treatment plant pipeline at the intersection of Avenue 216 (Paige Avenue) and Road 96 (Pratt Street). The trenches would be backfilled and restored to paved roadways and gravel roadway shoulders along each segment of roadway/shoulders as installation/construction of pipeline, lift station(s), or other subsurface appurtenances is completed. As such, *No Project-specific Impacts* would occur.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County.

The Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. Since the Project does not have the potential to physically divide an established community, *No Cumulative Impact* would occur.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

As noted earlier, there would be *No Project-specific or Cumulative Impacts* related to this Checklist Item.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Project Impact Analysis: *No Impact*

As indicated in Tulare County General Plan Policy **AG-1.10**, Extension of Infrastructure into Agricultural Areas – “The County shall oppose extension of urban services, such as sewer lines, water lines, or other urban infrastructure, into areas designated for agriculture use unless necessary to resolve a public health situation. Where necessary to address a public health issue, services should be located in public rights-of-way in order to prevent interference with agricultural operations and to provide ease of access for operation and maintenance. Service capacity and length of lines should be designed to prevent the conversion of agricultural lands into urban/suburban uses.” As such, consistent with AG-1.10, the Project is being recommended to remedy existing (and avoid future potential) public health issues within Matheny Tract.

The proposed wastewater pipelines would be sized to serve the community’s existing needs (including potential infill development and within the community’s Urban Area Boundary) and would not provide additional capacity that could accommodate a substantial amount of future development. Since the Project would not result in substantial growth and is generally consistent with the existing conditions in Matheny Tract, it would not conflict with the Tulare County General Plan. As noted earlier, the Project would be consistent with several Tulare County General Plan policies and the City of Tulare’s General Plan Policy LU-P2.8 Regional Cooperation, to wit; “The City shall maintain a cooperative relationship with other local governments (i.e. Tulare County, the City of Visalia) to address regional issues and opportunities related to growth, transportation, infrastructure, greenhouse gas emissions reductions, and other planning issues.”

Therefore, there would be ***No Project-specific Impact***.

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

The geographic area of this cumulative analysis is Tulare County

The Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. Since the Project would not conflict with any applicable land use plan, ***No Cumulative Impacts*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, there are ***No Project-specific or Cumulative Impacts*** related to this Checklist item.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

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

There are two habitat conservation plans that apply in Tulare County. The Kern Water Habitat Conservation Plan only applies to an area near Allensworth (located in southwestern Tulare County), thus the Project is not subject to this Plan. The Recovery Plan for Upland Species in the San Joaquin Valley outlines a number of species that are important to the San Joaquin Valley. None of these species were identified on the in relation to the Project. As such, ***No Project-specific Impacts*** would 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, 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 would conflict with local policies or ordinances.

Mitigation Measure(s): ***None Required***

Conclusion:

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would occur.

REFERENCES

2014-2040 Regional Transportation Plan & Sustainable Communities Strategy, adopted June 30, 2014 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>

Tulare County 2030 General Plan, Background Report, and EIR

California Department of Finance, May 1, 2017 E-1 Population Estimates for Cities, Counties, and the State – January 1, 2016 and 2017 Accessed June 6, 2017 at:

<http://dof.ca.gov/Forecasting/Demographics/Estimates/E-1/>

2011 California Department of Finance, <http://www.dof.ca.gov/research/demographic/>

Tulare County Association of Governments (TCAG) Website, <http://www.tularecog.org/>

Provost & Pritchard Consulting Group, *Project Feasibility Report, Matheny Tract Wastewater System, Tulare County, California 2016*.

CEQA Guidelines

Chapter 3.11

Mineral Resources

SUMMARY OF FINDINGS

The Preferred/Proposed Project would result in *No Impacts* related to Mineral Resources, and therefore, no mitigation measures are required. The impact analyses and determinations in this chapter are based upon information obtained from the References listed at the end of this chapter. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 2, City of Tulare option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. 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 Guidelines Section 15126, all phases of the Project would 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.”¹ 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 regulatory policies that were developed in part from information contained in Plan the Tulare County 2030 General Plan, the Tulare County General 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 Tulare County 2030 General Plan identifies known Mineral Resource areas within the County jurisdictional boundary. 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.”²

“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.”³

“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

¹ California Environmental Quality Act, CEQA Guidelines Section 15126.2 (a)

² Tulare County General Plan Update 2030, Background Report, February 2010. Page 10-18.

³ Ibid. 10-17.

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 exist, 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.”⁴

REGULATORY SETTING

Federal Agencies & Regulations

No Federal Agencies or Regulations apply to the 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 Section 11430 et seq.) 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. Public Resources Code Section

⁴ Guidelines for Classification and Designation of Mineral Land. Pages 4 to 6.
<http://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf>

2207 provides annual reporting requirements for all mines in the state, under which the State Mining and Geology Board is also granted authority and obligations.”⁵

State Mining & Geology Board (SMGB)

“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 the Department of Conservation, 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.”⁶

The Office of Mine Reclamation (OMR)

The Office of Mine Reclamation was created in 1991 to administer the SMARA requirements. OMR provides assistance to cities, counties, state agencies and mine operators for reclamation planning and promotes cost-effective reclamation. OMR strives to reclaim mined lands to a beneficial end-use through the implementation of SMARA, prevent or minimize the adverse environmental effects of mining by providing assistance to lead agencies and miners in the review of reclamation plans, and minimize residual hazards to public health and safety through the Abandoned Mine Lands program.”⁷

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.

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 aggregate⁸.

ERM-2.2 Recognize Mineral Deposits - The County will recognize as a part of the General Plan those areas of identified and/or potential mineral deposits⁸.

ERM-2.10 Incompatible Development - Proposed incompatible land uses in the County shall not be on lands containing or adjacent to identified mineral deposits, or along key access roads, unless adequate mitigation measures are adopted or a statement of overriding considerations stating public benefits and overriding reasons for permitting the proposed use are adopted.⁸

⁵ SMARA Description, <http://www.conservation.ca.gov/smgb/Regulations/Pages/regulations.aspx>

⁶ State Mining & Geology Board (SMGB), <http://www.conservation.ca.gov/smgb/Pages/Index.aspx>

⁷ Office of Mine Regulation, <http://www.conservation.ca.gov/OMR/Pages/Index.aspx>

⁸ Tulare County General Plan Update 2030, Adopted August 28, 2012. Page 8-11.

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*

Mineral Resources located in central Tulare County are predominantly sand and gravel resources near waterways. According to the Tulare County General Plan 2030 Update (see Figure 10-1, page 10-19), the Project area is not located in a known mineral resource zone MRZ.⁹ The pipelines would be constructed within existing road rights-of-way which are highly disturbed and typically collect stormwater runoff from the roadways. The pipelines would be trenched in the rights-of-way which generally consist of gravel road shoulders; which is typical of roadways in the area. Occasionally, pipelines would require trenching through paved roadways to connect to other components of the pipelines infrastructure, as is the case with the inter-tie with the existing City of Tulare wastewater treatment plant main pipeline at the intersection of Avenue 216 (Avenue Paige) and Road 96 (Pratt Street). At least one lift station (or other appurtenant structures) will be necessary for the Project; final engineering and design would determine any surface or subsurface location(s). Following completion of construction-related activities, the trenches would be backfilled and restored to roadways and gravel roadway shoulders along each segment of roadway/shoulders as installation and/or construction of pipeline, lift stations, or other subsurface appurtenances is completed. Therefore, *No Project-specific Impact* would 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, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

As noted above, the Project does not include mining operations and is not located within a known mineral resource zone. Therefore, *No Cumulative Impacts* would occur.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

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

⁹ Background Report Tulare County General Update 2030. Page 10-19. Accessed June 5, 2017 at:
<http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/Appendix%20B%20-%20Background%20Report.pdf>

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 Item 3.11 a), the Project does not include a mining operation and the Project site is not located in or near a known mineral resource zone. There would 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 Project is Porterville Ready-mix, Sand Pit (permit number PMR 91-002, PMR 87-001) a hard rock, gravel and sand pit operating within the Tule River Floodplain west of Porterville, approximately 30 miles east-southeast of Matheny Tract.¹⁰ Therefore, *No Project-specific Impact* would 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, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

As noted in the Response to 3.11 a), the Project does not include a mining operation and is not located within a mineral resource zone. Therefore, *No Cumulative Impacts* would occur.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

As noted earlier, *No Project-specific or Cumulative Impacts* related to this Checklist Item would occur.

¹⁰ Mineral Land Classification of Concrete Aggregate Resources in the Tulare County Production- Consumption Region, Ca. Page 28.
ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR_97-01/OFR_97-01_Text.pdf

REFERENCES

California State Department of Conservation, Guidelines for Classification and Designation of Mineral Land (page 4 to 6) which can be accessed at:

<http://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf>

California State Department of Conservation, MRZ classification, which can be accessed at:

<http://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf>

California State Department of Conservation, Office of Mine Regulation, which can be accessed at: <http://www.conservation.ca.gov/OMR/Pages/Index.aspx>

California State Department of Conservation, SMARA Description, which can be accessed at:

<http://www.conservation.ca.gov/smgb/Regulations/Pages/regulations.aspx>

California State Department of Conservation, State Mining & Geology Board (SMGB), which can be accessed at: <http://www.conservation.ca.gov/smgb/Pages/Index.aspx>

Background Report Tulare County General Update 2030. Which can be accessed at:

<http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/Appendix%20B%20-%20Background%20Report.pdf>

Tulare County 2030 General Plan Update

U.S. Geology Survey, which can be accessed at: <http://mrdata.usgs.gov/mineplant/show-mineplant.php?id=815>

Provost & Pritchard Consulting Group, *Project Feasibility Report, Matheny Tract Wastewater System, Tulare County, California 2016.*

Chapter 3.12

Noise

SUMMARY OF FINDINGS

The Preferred/Proposed Project would result in *Less Than Significant Impact* related to Noise. The impact analyses and determinations in this chapter are based upon information obtained from the References listed at the end of this chapter. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 2, City of Tulare option) as the proposed Project. As such, the following discussion refers to the “Preferred Alternative” as “the Project”. 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 CEQA Guidelines Section 15126, all phases of the proposed Project would 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.”

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 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 thresholds of significance for this section are established by the CEQA checklist item questions. The following are potential thresholds for significance:

- Exceed Tulare County Standards for Noise Levels
- Expose people of excessive ground borne vibration
- Expose people to excessive airport/airstrip noise

ENVIRONMENTAL SETTING

The Project is located in the rural unincorporated portion of west-central Tulare County, which is in a generally rural environment but, also southwest of the City of Tulare (approximately 0.5 miles north). The unincorporated community of Matheny Tract is primarily a bedroom community with the majority of its land uses consisting of single-family detached residential units, including three commercial uses and three religious establishments.

The 2014-2040 Tulare County Association of Governments (TCAG), Regional Transportation Plan & Sustainable Communities Strategy (RTP/SCS), Draft Environmental Impact Report (Draft EIR), SCH #2012081070, provides an excellent summary of how sound (that is, noise and vibration) are measured and major noise sources in Tulare County as follows:

“a. Overview of Sound Measurement

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 PM and 7:00 AM 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...¹

As noted in the 2014 TCAG 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 anyone 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).”²

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 3.12-1** 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.”³

Noise generated in the Project area is largely attributed to roadway traffic involved in residential and agricultural activities. Noise levels are determined primarily by number of vehicles, type of vehicles (mix of automobiles, trucks, tractors, harvesting equipment and other large vehicles),

¹ 2014 TCAG RTP/SCS Draft EIR. Page 4.11-2.

² Ibid. 4.11-4.

³ Tulare County General Plan 2030 Update Background Report. Page 8-77.

and vehicle speed. Avenue 216/Paige Avenue, located north of Matheny Tract (and running in a west-east direction), and Road 96/Pratt Street, located at the west end of the community (which runs north-south) are the two primary arterial roadways in the area. The location of Road 96/Pratt Street relative to the proposed Project site may result in a moderate ambient noise level during construction-related activities. However, as indicated in General Plan Policy **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.” Construction-related activities noise would be short-term and temporary in nature. Also, operations-related noise would be imperceptible as sewer lines are gravity-fed, while the lift station(s)’ electricity-powered pump(s) would be encased in cement vaults and undergrounded to further minimize potential noise. As such, noise levels are not anticipated to significantly impact sensitive receptors.

The Project would result in the installation of new sewer pipelines within the following Tulare County or City of Tulare rights-of-way:

- Avenue 216 (Paige Avenue) at Road 96 (Pratt Street), (where the main line from Matheny Tract connects to City of Tulare’s sanitary sewer trunk line);
- Road 96 (Pratt Street) (west of and adjacent to both North and South Matheny Tract; the route of the main line to connect to the City of Tulare’s sanitary sewer trunk line);
- Wade Avenue (within North Matheny Tract);
- Beacon Avenue (within North Matheny Tract);
- Addie Avenue (within North Matheny Tract);
- Matheny Avenue (within South Matheny Tract); and
- Prine Avenue (within South Matheny Tract).

Connection to the City of Tulare’s Wastewater Treatment Facility would involve crossing rights-of-way at the intersection of Avenue 216 (Paige Avenue) at Road 96 (Pratt Street). The existing City of Tulare’s sanitary sewer trunk line is located within the Avenue 216 (Paige Avenue) rights-of-way.

Depending on the final engineering design (and the capabilities of the equipment purchased) the Project could include more than one lift station along Road 96 (Pratt Street) in order to eventually pump sewer water to the City of Tulare Wastewater Treatment Plant.

The sanitary sewer collection system pipelines that would be installed within Matheny Tract would be located within County roadways using open-trench construction. Construction-related disturbance would also occur near the terminus of existing pipelines or where new pipeline connections would be introduced.

Other than the approximately 336 total residential units within Matheny Tract and the few businesses and religious establishments, there are approximately 10 potentially sensitive noise






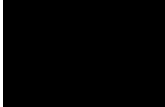

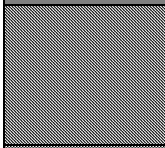
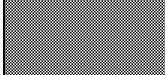
Draft Environmental Impact Report
Matheny Tract Wastewater System Project Feasibility Report

receptors (all rural residences) within a ½ mile radius of the proposed construction areas for the Project. These receptors would only be subjected to Project-related noise from construction-related activity for a short-term, temporary, and transient time (that is, the source of noise from construction-related equipment would likely move daily as the main pipeline is constructed to connect with the Tulare Wastewater Treatment Plant). The ongoing operation of the Project would generate intermittent and likely imperceptible noise levels (similar to the operation of agricultural pumps in the area) from the lift station(s). As such, this source of noise is not anticipated to exceed ambient noise levels (including background roadway traffic) and noise from nearby agricultural-related equipment.

Table 3.12-1 Land Use Compatibility for Community Noise Environments⁴							
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	██████████	██████████	██████████	██████████	██████████	██████████	██████████

⁴ Tulare County General Plan 2030 Update, Goals & Policies Report. Page 10-25.

Draft Environmental Impact Report
Matheny Tract Wastewater System Project Feasibility Report

Table 3.12-1 Land Use Compatibility for Community Noise Environments ⁴							
Land Use Category		Community Noise Exposure-Ldn or CNEL (dB)					
		50	55	60	65	70	75
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.					

REGULATORY SETTING

Federal Agencies & Regulations

There are no federal standards related to noise applicable to the Project. The Federal Noise Control Act of 1972 divided the powers between federal, state, and local governments, in which the primary federal responsibility is for noise source emission control. State and local governments are responsible for controlling the use of noise sources and determining the levels of noise to be permitted in the environment⁵.

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.”⁶

California's Airport Noise Standards

“The State of California has the authority to establish regulations requiring airports to address aircraft noise impacts on land uses in their vicinities. The State of California's Airport Noise Standards, found in Title 21 of the California Code of Regulations, identify a noise exposure level of CNEL 65 dB as the noise impact boundary around airports. Within the noise impact boundary, airport proprietors are required to ensure that all land uses are compatible with the aircraft noise environment or the airport proprietor must secure a variance from the California Department of Transportation.”⁷

California Department of Transportation (Caltrans)

“The State of California establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the State pass-by standard is consistent with the federal limit of 80 dB. The State pass-by standard for light trucks and passenger cars (less than 4.5 tons gross vehicle rating) is also 80 dB at 15 meters from the centerline.”⁸

Local Policy & Regulations

⁵ USEPA-EPA Identifies Noise Levels Affecting Health and Welfare, accessed: April 17, 2017 at: <https://nepis.epa.gov/Exe/ZyPDF.cgi/2000L3LN.PDF?Dockey=2000L3LN.PDF>

⁶ 2014 TCAG RTP/SCS Draft EIR. Page 4.11-9.

⁷ Ibid. 4.11-7 and 4.11-9.

⁸ Op. Cit. 4.11-9.

At the local level, noise is addressed through the implementation of the County's General Plan policies, including noise and land use compatibility guidelines, and through compliance with the County Noise Ordinance. General Plan policies provide guidelines for determining whether a noise environment is appropriate for a proposed land use.

Tulare County General Plan Policies

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

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-8.11 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.

IMPACT EVALUATION

Would the project:

- 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?**

Project Impact Analysis:

Less Than Significant Impact

Project construction would involve temporary, short-term noise sources including site preparation (for the lift station(s)), installation of the pipeline, and site cleanup work is expected to last for approximately six (6) months. Construction-related short-term, temporary noise levels would be higher than existing ambient noise levels in the Project area, but would not occur after construction is completed.

The Tulare County Health and Safety Element does not identify short-term, construction-noise-level thresholds. It limits noise generating activities (such as construction) to hours of

normal business operation unless specific County approval is given. Construction-related activities would be restricted to daytime hours and would be short-term and temporary in nature.

Operation and maintenance noise would be similar in character to existing noise in the area resulting from existing neighboring agricultural-related operations.

Complying with Tulare County General Plan Policies applicable to noise (particularly HS-8.11 Peak Noise Generators, HS-8.18 Construction Noise, and HS-8.19 Construction Noise Control), would result in a ***Less Than Significant Impact***.

Mitigation Measure(s): ***None Required***

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

The geographic area of this cumulative analysis is the area of Tulare County encompassing the unincorporated community of Matheny Tract. As noted in Chapter 2 Project Description, the community is separated into two segments, the northern and southern portions. The northern portion (North Matheny) is generally bounded by Road 96 (Pratt Street) and “I” Street in the east-west direction and Wade and Addie Avenues in the north-south direction. Adjacent to “I” Street, the Union Pacific Railroad tracks are elevated approximately 10-feet above natural ground surface; these railroad tracks serve as a physical boundary between the City of Tulare and the Matheny Tract. The southern portion (South Matheny) is generally bounded by Road 96 on the west and Prine and Matheny Avenues in the north-south direction. The entire Matheny Tract is bordered by agriculture lands to the west, north and south; agriculture land also lies between the northern and southern portions of the community. 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.

Construction of the Project would not result in any long-term noise impacts with the implementation of Mitigation Measure NOI-3.12-1. Therefore, cumulative impacts would be ***Less Than Significant***.

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

As noted earlier, any Project-specific and cumulative impacts related to this Checklist Item would be ***Less Than Significant*** by complying with Tulare County General Plan Policies applicable to noise (particularly; HS-8.11 Peak Noise Generators, HS-8.18 Construction Noise, and HS-8.19 Construction Noise Control)

b) Exposure of persons to or generation of excessive groundborne vibration or ground borne noise levels?

Project Impact Analysis: ***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.

Table 3.12-2 describes the typical construction equipment vibration levels. While these construction-related activities would result in minor amounts of groundborne vibration, such groundborne noise or vibration would attenuate rapidly from the source and would not be generally perceptible outside of the construction areas. In addition, there would not be any vibrational impacts from operation and maintenance activities.

As such, Project-specific impacts would be *Less Than Significant*.

Table 3.12-2 Typical Construction Vibration Levels ⁹	
Equipment	VdB at 25 ft²
Small Bulldozer	58
Jackhammer	79

Cumulative Impact Analysis: *Less Than Significant Impact*

The geographic area of this cumulative analysis is the area of Tulare County encompassing the unincorporated community of Matheny Tract. As noted in the Project Description, the community is separated into two segments, the northern and southern portions. The northern portion (North Matheny) is generally bounded by Road 96 (Pratt Street) and “I” Street in the east-west direction and Wade and Addie Avenues in the north-south direction. Adjacent to “I” Street, the Union Pacific Railroad tracks are elevated approximately 10-feet above natural ground surface; these railroad tracks serve as a physical boundary between the City of Tulare and the Matheny Tract. The southern portion (South Matheny) is generally bounded by Road 96 on the west and Prine and Matheny Avenues in the north-south direction. The Matheny Tract is bordered by agriculture lands to the west, north and south; agriculture land also lies between the northern and southern portions of the community. 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.

⁹ Federal Transit Administration, Transit Noise and Vibration Impact Assessment, 2006. Pages 2-16 to 12-10.

Operations of the Project would not result in any long-term vibration impacts. As such, cumulative impacts would be ***Less Than Significant***.

Mitigation Measure(s): ***None Required***

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

As noted above, Project-specific and cumulative impacts related to this Checklist Item would be ***Less Than Significant***.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

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

The Project site is set in a rural area in Tulare County. The ambient noise environment in the vicinity of the Project site is dominated by agricultural uses, primarily tractors and by vehicles traveling along Road 96 (Pratt Street).

No noise would be generated from the operation of the pipeline, which would be buried underground. The pumps operating at the lift stations would emit a very low level noise that would be barely detectible outside their enclosures. Therefore, the Project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Project-specific impacts would be ***Less Than Significant***.

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

The geographic area of this cumulative analysis is the area of Tulare County encompassing the unincorporated community of Matheny Tract and roughly bounding the Road 96 corridor northward to the intersection of Road 96 (Pratt Street) and Avenue 216 (Paige Avenue). 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 other known or reasonable-foreseeable sources of noise that may occur in the near future. Cumulative impacts related to this category can only occur if there are Project-specific impacts. As noted earlier in the response to Item 3.12 c), any permanent increase to ambient noise levels would likely be imperceptible outside of the lift station(s) enclosure(s) (which would be undergrounded, enclosed within a concrete vault, and surrounded by and covered with dirt); as such, the increase in noise levels would not exceed Tulare County's standards. Therefore, cumulative impacts would be ***Less Than Significant***.

Mitigation Measure(s): ***None Required***

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

As described earlier, there are no other known or reasonable-foreseeable sources of noise that may occur in the near future, and permanent increases to ambient noise levels would likely be imperceptible at any distance from the lift stations, and would not exceed Tulare County noise level thresholds. As a result, Project-specific and cumulative impacts would be ***Less Than Significant***.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

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

Temporary and short-term construction-related noise would occur as the Project components are constructed. No other temporary or periodic noise is anticipated.

An earlier discussion at Item 3.12 a) addresses noise generated by the construction-related activities of the Project concluding that the implementation of General Plan Policies HS-8.11 Peak Noise Generators, HS-8.18 Construction Noise, and HS-8.19 Construction Noise Control would reduce noise impacts to ***Less Than Significant***

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 other projects that would significantly increase either temporary or short-term noise levels in the vicinity of the Project site. Unless significant temporary noise levels from multiple sources would occur at the same time, temporary and short-term construction-related noise would result in ***Less Than Significant Cumulative Impacts***

Mitigation Measure(s): ***None Required***

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

As discussed earlier, both Project-specific and cumulative impacts related to this Checklist Item would be ***Less Than Significant*** by complying with Tulare County General Plan Policies applicable to Noise (particularly: HS-8.11 Peak Noise Generators, HS-8.18 Construction Noise, and HS-8.19 Construction Noise Control).

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 expose people residing or working in the project area to excessive noise levels?

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

The Project is not in the immediate vicinity of an airport land use plan. Also, as the Project predominantly includes the construction of an underground wastewater pipeline, a new sewer line collection system within Matheny Tract, lift station(s), and other appurtenances; there is no possible way it would impact a public or public use airport or expose people residing or working in the Project area to excessive noise levels. Lastly, when completed, there would not be any employees on a full-time daily basis nor does the Project involve any residential uses. Therefore, ***No Project-specific Impacts*** would 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, General Plan Background Report, and/or Tulare County 2030 General Plan EIR.

As noted earlier, the Project site is not located within an airport land use plan boundary nor does it involve full-time employees or residential uses. Therefore, ***No Cumulative Impacts*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, the Project is not in the vicinity of an Airport Land Use Plan. As such, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would occur.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

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

As the Project site is not near any known operating private airstrips; potential exposure to private airstrip noise is non-existent. As noted earlier, the Project predominantly includes the construction of an underground wastewater pipeline, a new sewer line collection system within Matheny Tract, lift station(s), and other appurtenances; there is no possible way it would impact a public or public use airport or expose people residing or working in the Project area to excessive noise levels. Therefore, ***No Project-specific Impacts*** would 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, General Plan Background Report, and/or Tulare County 2030 General Plan EIR.

As noted earlier, the Project is not located near a private airstrip, it predominantly includes the construction of an underground wastewater pipeline, a new sewer line collection system

within Matheny Tract, lift stations, and other appurtenances; there is no possible way it would impact a public or public use airport or expose people residing or working in the Project area to excessive noise levels. Therefore, ***No Cumulative Impacts*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would occur.

DEFINITIONS/ACRONYMS

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).”¹⁰ 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.”¹¹

Attenuation: “Reduction in the level of sound resulting from absorption by the topography, the atmosphere, distance, barriers, and other factors.”¹²

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.”¹³

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.”¹⁴

Decibel (dB): “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).”¹⁵

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.”¹⁶

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

¹⁰ Tulare County Association of Governments (TCAG), *2011 Regional Transportation Plan: Draft Subsequent EIR*. Page 150.

¹¹ Tulare County General Plan 2030 Update, Background Report, February 2010. Page 8-46.

¹² Ibid.

¹³ Op. Cit.

¹⁴ Op. Cit.

¹⁵ Op. Cit.

¹⁶ Op. Cit.

equal to the average sound level). The equivalent sound level measured over a 1-hour period is called the hourly Leq or Leq (h).”¹⁷

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 most community noise measurements, the Lmax and Lmin values are the maximum and minimum levels recorded typically for 1-second periods.¹⁸

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.”¹⁹

Sensitive Receptors: “Sensitive receptors are defined to include residential areas, hospitals, convalescent homes and facilities, schools, and other similar land uses.”²⁰

Abbreviations and Acronyms

ALUC	Tulare County Airport Land Use Commission
CALUP	Tulare County Comprehensive Airport Land Use Plan
CNEL	Community Noise Equivalent Level
dB	Decibel
dBA	A-weighted Decibel
DNL/Ldn	Day-Night Average Sound Level
Leq	Equivalent Sound Level
Lmax	Maximum Sound Level
Lmin	Minimum Sound Level
Lx/Ln	Percentile Exceeded Sound Level
VdB	Decibel, used to distinguish noise from vibration

¹⁷ Op. Cit.

¹⁸ Op. Cit. 8-47.

¹⁹ Op. Cit.

²⁰ Op. Cit.

REFERENCES

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Provost & Pritchard Consulting Group, *Project Feasibility Report, Matheny Tract Wastewater System, Tulare County, California 2016*.

Chapter 3.13

Population and Housing

SUMMARY OF FINDINGS

The Project would result in *Less Than Significant Impacts* related to Population and Housing. The impact analyses and determinations in this chapter are based upon information obtained from the References listed at the end of this chapter. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 2, City of Tulare option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. A detailed review of potential impacts is provided in the following analysis.

INTRODUCTION

CEQA Requirements for Evaluation of Impacts to Population and Housing

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

As noted in Section 15126.2 (a), “An EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a 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 proposed 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.”¹

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 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 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 thresholds of significance for this section are established by the CEQA checklist item questions. The following are potential thresholds for significance:

- Induce Substantial Population Growth
- Displace Housing
- Displace People

ENVIRONMENTAL SETTING

“Tulare County, California is one of the largest counties in the San Joaquin Valley. Geographically it is situated about midway between San Francisco and Los Angeles, the two principal cities of the State. Tulare County is approximately 4,863 square miles, or 3,158,400 acres.”²

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 3.13-1**. “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.

¹ CEQA Guidelines, Section 15126.2 (a)

² Tulare County Regional Blueprint, pages 4 to 5

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“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 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”³

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 3.13-1** summarizes Tulare County’s population between 1980 and 2010 according to the 1980-2010 U.S. Census.

Table 3.13-1					
Tulare County Population					
	1980	1990	2000	2008	2010
Tulare County’s Population	245,738	311,921	368,021	435,254	442,179
<i>Source: 1980, 1990, 2000 U.S. Census, State of California, Department of Finance, E-1 Population Estimates.</i>					

The RHNA housing results are summarized in **Table 3.13-2**. The Tulare County RHNA Plan recommends that the County provide land use and zoning for approximately 7081 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.

³ 2015 Housing Element. Page 3-21.

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Table 3.13-2 Regional Housing Needs Assessment Plan January 1, 2014 – September 30, 2023					
Income Category					
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>					

“Affordability problems occur when housing costs become so high in relation to income that households have to pay an excessive proportion of their income for housing, or are unable to afford any housing and are homeless. A household is considered to be overpaying (or cost burdened) if it spends more than 30 percent of its gross income on housing. Severe overpayment occurs when a household spends more than 50 percent of income on housing. Housing costs depend upon many variables, including the type, size, value and/or location of the housing units, the intended tenure of the unit (whether it is to be occupied by owners or renters), and the inclusion or exclusion of one or more utilities, services, property taxes, insurance, and maintenance.”⁴

“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.”⁵

⁴ 2015 Housing Element. Page 3-21.

⁵ Ibid. Page 4-18.

REGULATORY SETTING

Federal Agencies & Regulations

US 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.”⁶

State Agencies & Regulations

California Department of Housing and Community Development (HCD)

HCD’s mission is to “[p]rovide leadership, policies and programs to preserve and expand safe and affordable housing opportunities and promote strong communities for all Californians.”⁷ “In 1977, the California Department of Housing and Community Development (HCD) adopted regulations under the California Administrative Code, known as the Housing Element Guidelines, which are to be followed by local governments in the preparation of local housing elements. AB 2853, enacted in 1980, further codified housing element requirements. Since that time, new amendments to State Housing Law have been enacted. Each of these amendments has been considered during development of this Housing Element.”⁸

California Relocation Assistance Act

The State of California adopted the California Relocation Assistance Act (California Government Code Section 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.

Housing Element Law – Article 10.6 of the Government Code, Sections 65580–65589.8

The California legislature has declared the attainment of affordable housing and a suitable living environment for every Californian to be of vital importance. Attaining the state’s housing goals requires efforts from all sectors, including the private sector, and all levels of government. Each

⁶ HUD Website, <http://portal.hud.gov/hudportal/HUD?src=/about/mission>

⁷ HCD website, <http://www.hcd.ca.gov/mission.html>

⁸ Tulare County 20015 Housing Element Update, Adopted November 17, 2015. Page 1-3.

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local government has power to facilitate the improvement and development of housing for all economic segments of the community accounting for economic, environmental, and fiscal factors as well as community goals and regional housing needs. One tool used by local governments to achieve these goals is the housing element of the general plan. The housing element identifies and analyzes existing and projected housing needs and presents goals, policies, quantified objectives, and programs to address those needs. Housing elements also provide implementation measures for these programs. Housing elements must be updated at least every five years. The current County of Tulare Housing Element was adopted by the County Board of Supervisors on November 17, 2015. HCD is subsequently on track to certify the Housing Element as complying with Housing Element Law in April, 2016.

Local Policy & Regulations

Tulare County 2014 Regional Housing Needs Assessment Plan

“It is the responsibility of the Tulare County Association of Governments (TCAG) to determine how to allocate to local jurisdictions the basic housing needs provided by the State Department of Housing and Community Development. The determination of household needs by income category is designed for the equitable distribution of households by income category within the region. The presumptive goal is to promote greater housing opportunities throughout the County. In 2014 the Regional Housing Needs Assessment Plan (RHNA) allocated a disproportionate amount of low and very low housing to the unincorporated area of Tulare County. In 2014, the RHNA plan provides a more equitable distribution of the regional housing needs allocation, as required by Section 65584 of the government Code, thereby providing greater affordable housing opportunities through the entire County including unincorporated areas as well as within the cities’.”⁹

Tulare County Regional Blueprint 2009

This Blueprint includes the following preferred growth scenario principals:

- Increase densities county-wide by 25% over the status quo densities;
- Establish light rail between cities;
- Extend Highway 65 north to Fresno County;
- Expand transit throughout the county;
- Maintain urban separators around cities; and
- Growth will be directed toward incorporated cities and communities where urban development exists and where comprehensive services and infrastructure are or will be provided.

⁹ Ibid. 3-74.

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Tulare County Housing Authority

“The Housing Authority of the County of Tulare (HATC) has been officially designated as the local public housing agency for the County of Tulare by the Board of Supervisors and was created pursuant to federal and state laws. ...HATC is a unique hybrid: a public sector agency with private sector business practices. Their major source of income is the rents from residents. The HATC mission is “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.”

HATC provides rental assistance to very low and moderate-income families, seniors and the handicapped throughout the county. HATC offers many different programs, including the conventional public housing program, the housing choice voucher program (Section 8), the farm labor program for families with farm labor income, senior housing programs, and other programs. They also own or manage some individual subsidized rental complexes that do not fall under the previous categories, and can provide information about other affordable housing that is available in Tulare County. All programs are handicap accessible. Almost all of the complexes have 55-year recorded affordability covenants.”¹⁰

2015-2030 Tulare County Housing Element Policies

- Policy 1.11 Encourage the development of a broad range of housing types to provide an opportunity of choice in the local housing market.
- Policy 1.14 Pursue an equitable distribution of future regional housing needs allocations, thereby providing a greater likelihood of assuring a balance between housing development and the location of employment opportunities.
- Policy 1.33 Encourage and support a balance between housing and agricultural needs.
- Policy 2.11 Encourage Federal and State governments to increase the level of funding for improvements or expansion of public infrastructure serving the unincorporated communities.
- Policy 2.12 Increase opportunities for technical assistance to public utility districts and community service districts and mutual water companies in an effort to educate and assist them in attaining the necessary public infrastructure.
- Policy 2.13 When land is purchased by the County in conjunction with installation of new public facilities, the County will endeavor to make any excess land available to housing agencies for development of affordable housing.

¹⁰ Ibid. 5-12.

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- Policy 2.14 Create and maintain a matrix of Infrastructure Development Priorities for Disadvantaged Unincorporated Communities in Tulare County through analysis and investigation of public infrastructure needs and deficits, pursuant to Action Program 9.
- Policy 2.21 Require all proposed housing within the development boundaries of unincorporated communities is either (1) served by community water and sewer, or (2) that physical conditions permit safe treatment of liquid waste by septic tank systems and the use of private wells.
- Policy 2.24 Improvement requirements should reflect a balance between housing needs and the protection of public health and safety.
- Policy 2.25 The County shall encourage special districts, including community services districts and public utility districts to: 1. Institute impact fees and assessment districts to finance improvements, 2. Take on additional responsibilities for services and facilities within their jurisdictional boundaries up to the full extent allowed under State law, and 3. Investigate feasibility of consolidating services with other districts and annexing systems in proximity to promote economies of scale, such as annexation to city systems and regional wastewater treatment systems (GPU PFS 1.8 Funding for Service Providers).
- Policy 3.11 Support and coordinate with local economic development programs to encourage a “jobs to housing balance” throughout the unincorporated area.
- Policy 5.21 Administer and enforce the relevant portions of the Health and Safety Code.
- Action Program 9 – Housing Related Infrastructure Needs

Provide vital information used for planning and development purposes, target expansion or repair of infrastructure and municipal services to areas with the most need and secure Federal and State funding for housing-related infrastructure. Provide technical assistance to PUDs, CSDs, and Mutual to fund infrastructure improvement and expansion, ensure safe and adequate water and liquid waste disposal, and have an equitable balance of fees between new and existing residents.

IMPACT EVALUATION

Would the Project:

- a) **Induce substantial 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:

Less Than Significant Impact

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The Project would require an extraterritorial service connection and consolidation of facilities with the City of Tulare's Wastewater Treatment Facility. The purpose of the grant funding this Project is to design a sewage collection system of sufficient size to serve the existing population of Matheny Tract. Further, the intent of this Project is to also remedy and/or avoid potential future groundwater contamination caused by seepage of septic system leach fields wastewater into the underground water supply. Connecting to and consolidating of wastewater collection and treatment with the City of Tulare's Wastewater Treatment Facility would accomplish this goal through eventual abandonment of existing septic systems, termination of wastewater discharge from system tanks into the ground, and avoidance of construction of a stand-alone waste water treatment facility (including percolation ponds) in or near Matheny Tract. As such, designing and constructing a wastewater system capable of servicing the existing land uses and limited planned growth within Matheny Tract would result in a *Less Than Significant Impact*.

Cumulative Impact Analysis: *Less Than Significant Impact*

As noted earlier, designing and constructing a wastewater system capable of servicing the existing land uses and limited planned growth within Matheny Tract would result in a *Less Than Significant Impact*.

Conclusion: *Less Than Significant Impact*

As noted earlier, Project-specific and cumulative impacts related to this Checklist Item would result in a *Less Than Significant Impact*.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Project Impact Analysis: *No Impact*

The Project would result in the construction of wastewater collection laterals from each home, commercial, or religious use within Matheny Tract and connect to collection lines in the various County rights-of-way abutting the homes and businesses. These collection lines would then inter-tie to a mainline (constructed within the right-of-way) that would deliver the wastewater to the City of Tulare sewer trunk pipeline (and eventually to the Wastewater Treatment Facility) located near the intersection of Avenue 216/Paige Avenue and Road 96/Pratt Street, approximately 0.22 miles north of Matheny Tract. As such, the Project would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. Therefore, *No Project-specific Impact* would 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 Tulare County 2030 General Plan EIR.

No existing housing would be displaced. Therefore, ***No Cumulative Impacts*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would occur.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

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

The Project would result in the construction of wastewater collection laterals from each home or business within Matheny Tract and connect to collection lines in the various County rights-of-way adjacent to the homes and businesses. These collection lines would then inter-tie to a mainline (constructed within the right-of-way) that would deliver the wastewater to the City of Tulare sewer trunk pipeline (and eventually to the Wastewater Treatment Facility) located near the intersection of Avenue 216/Paige Avenue and Road 96/Pratt Street, approximately 0.22 miles north of Matheny Tract. The Project does not include the conversion of housing. Therefore, no people would be displaced. As a result, ***No Project-specific Impacts*** would occur that would displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

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 Tulare County 2030 General Plan EIR.

The Project would not convert housing on-site or off-site. As a result, ***No Cumulative Impacts*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would occur.

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Chapter 3.14

Public Services

SUMMARY OF FINDINGS

The proposed Project would result in *Less Than Significant Impacts* related to Public Services. The impact analyses and determinations in this chapter are based upon information obtained from the References listed at the end of this chapter. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 2, City of Tulare option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. 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 Public Services. As required in CEQA Guidelines Section 15126, all phases of the proposed Project would be considered as part of the potential environmental impact.

The environmental setting provides a description of the Public Services 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 thresholds of significance for this section are established by the CEQA checklist item questions. The following are potential thresholds for significance.

- Will the Project impact Fire Services?
- Will the Project impact Police Services?
- Will the Project impact Schools?
- Will the Project impact Parks?
- Will the Project impact Other Public Facilities?

ENVIRONMENTAL SETTING

Fire Protection

“The [former] California Department of Forestry and Fire Protection/Tulare County Fire Department (now CalFire/TCFD) serves 145,128 of Tulare County’s population. As Table 7-6 of the General Plan Background document shows, dispatchers reported 14,022 responses in 2002, averaging 38.4 calls a day. 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.”¹

“..[T]he Tulare County Fire Department responded to 14,022 calls for service in 2002... [A] majority of the calls were for medical emergencies (52 percent) followed by fire calls (20 percent). The remaining calls ranged from dispatch incidents (8.1 percent) to assisting other agencies (7.3 percent) to public assistance (3.4 percent).”² Tulare County Fire Department maintains mutual aid agreements with neighboring fire agencies.

Tulare County Fire Station #25, located at 2082 Foster Drive in Tulare, is the nearest fire station to the proposed Project area (approximately three miles east of Matheny Tract). ³City of Fire Department Station #61 is located approximately four miles northeast of southernmost Matheny Tract.

The Tulare County Fire Department uses an “attack” time protocol of 14 minutes to respond to 80 percent of the calls in rural areas. As the Project area is within the 14-minute response area; response times are achievable from the stations mentioned earlier (see **Table 3.14-1**).

Table 3.14-1 Fire Staffing and Response Time Standards			
	Demographics	Staffing/Response Time	% of Calls
Urban	> 1,000 people/sq. mi.	15 FF/9 min.	90
Suburban	500-100 people/sq. mi.	10 FF/10 min.	80
Rural	< 500 people/sq. mi.	6 FF/14 min.	80
Remote*	Travel Dist. > 8 min.	4 FF/no specific response time	90

**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)*

Source: Tulare County 2030 General Plan

¹ Tulare County General Plan Update 2030, Background Report, February 2010. Page 7-73.

² Ibid. 7-74.

³ Tulare County Fire Department Web Site: <http://www.tularecounty.ca.gov/fire/>

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Police Protection

“In 2007, the Tulare County Sheriff’s Department 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.”⁴

“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.”⁵

The nearest Tulare County Sheriff station is the Pixley Substation located approximately 13.5 miles southeast of the Project area. Other law enforcement stations within proximity of the proposed Project area are the California Highway Patrol Visalia Station and the City Tulare Police Department.

According to the Tulare County Sheriff’s Department 2014-2015 Annual Report, there were 592 allocated sworn officers serving the unincorporated population of 146,060 resulting in a service ratio of 2.45%. 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 allocated 252 non-sworn clerical and support staff amounting to the Sheriff’s Department staff personnel of 844 total employees.⁶

Schools

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 12th grade. The remaining 41 districts consist of 36 elementary school districts and four high school districts. Many districts only have one school.”⁷

“Total enrollment 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.”⁸

The nearest school to the Project site is Palo Verde Elementary School approximately 1.5 – 2.0 miles from South Matheny/North Matheny Tract; respectively.

⁴ Tulare County General Plan Update 2030, Background Report, February 2010. Pages 7-71 and 7-72.

⁵ Ibid. 7-71 and 7-72.

⁶ Tulare County Sheriff’s Department 2014-2015 Annual Report, page 6, accessed on January 9, 2014 and available at: <http://www.tularecounty.ca.gov/sheriff/index.cfm/community/2014-2015-annual-report/>

⁷ Tulare County General Plan Update 2030, Background Report, February 2010. Pages 7-75 and 7-76.

⁸ Ibid. 7-76.

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Parks

There are a number of Federal, State, and local parks within Tulare County, including 13 park and recreational facilities operated by the County of Tulare. The nearest community recreational facility is Elk Bayou Park approximately two miles southeast of Matheny Tract. Additional recreational facilities are located in City of Tulare with the nearest being Cypress Park which is approximately 2.5 miles northeast of Matheny Tract. Additional discussion of recreational facilities is provided in Chapter 3.15.

Library

“The Tulare County Public Library System is comprised 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 regional libraries and one main branch.”⁹

The nearest Tulare County Library Branch is the Tipton Branch Library in the community of Tipton approximately 10 miles north of Matheny Tract.

REGULATORY SETTING

Federal Agencies & Regulations

No Federal Agencies or Regulations apply to the Project.

State Agencies & Regulations

No State Agencies or Regulations apply to the Project.

Local Policies & 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 as follows:

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.

⁹Op. Cit.

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.

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.

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.

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.

IMPACT EVALUATION

- a) **Will 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 Project is within the service area of the Tulare County Fire Department. The proposed underground wastewater pipelines do not require electricity or flammable materials which could ignite a fire. The potential for an unlikely fire to ignite at a lift station would not pose a significant threat to nearby properties. Therefore, Project-specific impacts would be *Less Than Significant*.

Cumulative Impact Analysis: *Less Than Significant Impact*

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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 Tulare County 2030 General Plan EIR.

The proposed underground wastewater pipelines do not require electricity or flammable materials which could ignite a fire. The potential for an unlikely fire to ignite at a lift station would not pose a significant threat to nearby properties. Therefore, cumulative impacts would be ***Less Than Significant***.

Mitigation Measure(s): ***None Required***

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

As noted earlier, Project-specific and cumulative impacts related to this Checklist Item would be ***Less Than Significant***.

Police protection?

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

The County of Tulare's Sheriff's Office provides police protection services to the Project area, with or without the Project. Police services response is, and would remain, adequate to the Project and surrounding areas. The proposed underground wastewater pipeline would not require active police protection. While the County of Tulare's Sheriff's Office may be contacted for non-emergency situations (such as vandalism to lift stations), it is not anticipated that such vandalism would occur. Project-specific impacts would be ***Less Than Significant***.

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.

The proposed underground wastewater pipelines would not require active police protection services. While the County of Tulare's Sheriff's Office may be contacted for non-emergency situations (such as vandalism to the lift station(s)), even if such vandalism did occur, it would likely be a non-emergency event. Therefore, ***Less Than Significant Cumulative*** impacts would occur.

Mitigation Measure(s): ***None Required***

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

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As noted previously, Project-specific and cumulative impacts related to this Checklist Item would be ***Less Than Significant***.

Schools? ***No Impact***

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

The proposed underground wastewater pipelines would not result in the creation of new residences or other facilities that could result in an influx of population. Therefore, the Project would not impact schools. As such, ***No Project-specific Impact*** would 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, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

The proposed underground wastewater pipelines would not result in the creation of new residences or other facilities that could result in an influx of population. Therefore, the Project would not impact schools. As such, ***No Cumulative Impacts*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, the Project would not result in the creation of new residences or other facilities that could result in an influx of population. Therefore, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would occur.

Parks?

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

As discussed in Section 3.15 – Recreation, the underground wastewater pipeline would not impact parks. Therefore, ***No Project-specific Impact*** would 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, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

As discussed in Section 3.15 – Recreation, the Project would not impact parks. Therefore, ***No Cumulative Impacts*** would occur.

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Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

As noted earlier, and addressed in Section 3.15 - Recreation, *No Project-specific or Cumulative Impacts* related to this Checklist Item would occur.

Other Public Facilities?

Project Impact Analysis: *No Impact*

The Project does not involve the creation of new residences or other facilities that could result in an influx of population such that other public facilities would be needed. Therefore, there would be *No Project-specific Impacts*.

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 Project does not involve the creation of new residences or other facilities that could result in an influx of population such that other public facilities would be needed. Therefore, *No Cumulative Impact* would occur.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

As noted earlier, the Preferred/Proposed Project does not involve the creation of new residences or other facilities that could result in an influx of population such that other public facilities would be needed. As such, there would be *No Project-specific or Cumulative Impacts*.

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REFERENCES

Tulare County General Plan Update 2030, Background Report, February 2010

Tulare County Fire Department Web Site: <http://www.tularecounty.ca.gov/fire/>

Tulare County Sheriff's Department 2014-2015 Annual Report, page 6, accessed on June 6, 2017 and available at: <http://www.tularecounty.ca.gov/sheriff/index.cfm/community/2014-2015-annual-report/>

Tulare County Parks Department Web Site which can be accessed at:
<http://www.co.tulare.ca.us/government/parks/default.asp>

Tulare County Recirculated Draft Environmental Impact Report (SCH # 2006041162).

Provost & Pritchard Consulting Group, *Project Feasibility Report - Matheny Tract Wastewater System, Tulare County, California 2016*.

Chapter 3.15

Recreation

SUMMARY OF FINDINGS

The Preferred/Proposed Project would result in *No Impacts* related to Recreation. No mitigation measures would be required. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 2, City of Tulare option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. 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 CEQA Guidelines Section 15126, all phases of the proposed Project would 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.”¹

¹ CEQA Guidelines, Section 15126.2 (a)

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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 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:

- 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.”² In addition to the 13 parks and recreation facilities that are owned and operated by Tulare County, there are State Parks and Forests, National Parks and National Forests, and trails and recreational areas. However, none of these facilities are within the immediate vicinity of the Project.

Recreational Facilities

Schools and Parks

Matheny Tract does not have any parks or schools located within the community. The nearest school is Palo Verde Elementary School approximately 1.5-2.0 miles from South Matheny/North Matheny Tract; respectively. The nearest County park is Elk Bayou Park located approximately two miles southeast of Matheny Tract north of Avenue 200. The nearest City of Tulare public park is Cypress Park which is approximately 2.5 miles northeast of Matheny Tract. Table 3.15-1 provides a summary of federal recreation areas within Tulare County, while Table 3.15-2 lists County of Tulare recreational areas.

Federal Recreation Areas

Table 3.15-1 provides a summary of federal recreation areas within Tulare County.

² General Plan Background Report. Page 4-1.

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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 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.”³

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.”⁴

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.”⁵

Table 3.15-1		
National Park and Forest Facilities		
Recreation Area	Location	Camping Sites
Sequoia National Forest		
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 Highway 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

³ Ibid.

⁴ General Plan Background Report, page 4-7.

⁵ Ibid.

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Table 3.15-1 National Park and Forest Facilities		
Recreation Area	Location	Camping Sites
Total		194 sites
Kings Canyon and Sequoia National Park		
Atwell Mill	Sequoia, 19 miles from Highway 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	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 Highway 198.	10 tent sites
Sunset	In the Grant Grove area 3 miles from Kings Canyon park entrance.	157 tent sites
Total		1,209 sites

Source: Tulare County Resource Management Agency, Parks and Recreation Branch, 2008; Automobile Club of Southern California, Tulare County Map.

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.”⁶

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 campgrounds with 502 campsites and seven group campgrounds. In addition, there are

⁶ Tulare County Resource Management Agency, Parks and Recreation Branch, 2008; Automobile Club of Southern California, Tulare County General Plan Background Report. Page 4-9.

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approximately 160 miles of system trails, including 12 miles of the Summit National Recreation Trail.”⁷

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.”⁸

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. 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.”⁹

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.”¹⁰

⁷ Ibid.

⁸ Ibid.

⁹ Tulare County 203 General Plan Re-circulated RDEIR. Page 4-3.

¹⁰ Ibid. Page 4-7.

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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.¹¹

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."¹²

County of Tulare Parks

Table 3.15-2 County of Tulare Recreational Areas				
ID	Recreation Area	Location	Acres	Type of Use/Features
County				
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 Highway 216 to Ivanhoe.	50	Reservations for picnic areas are taken. Entrance fee for vehicles.
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 Highway 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	143	Reservations for picnic areas are taken. Paddle boats, playground, and baseball diamonds. Home of the End Trail statue. One of the largest oak woodlands in Tulare

¹¹ Ibid. Page 3.9-32.

¹² Op. Cit. 3.9-29.

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Table 3.15-2 County of Tulare Recreational Areas				
ID	Recreation Area	Location	Acres	Type of Use/Features
		South Visalia.		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.	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.
Total Acres				693

Source: Tulare County Resource Management Agency, Parks and Recreation Branch, 2008; Automobile Club of Southern California, Tulare County Map.

Existing Site Conditions

The Project is located within the unincorporated portion of central Tulare County in California's Central Valley, predominantly surrounded by historically disturbed agricultural land. The unincorporated community of Matheny Tract is a Census Designated Place is separated into two segments, the northern and southern portions, located southwest of the City of Tulare. The northern portion (North Matheny) is generally bounded by Road 96 (Pratt Street) and "I" Street in the east-west direction and Wade and Addie Avenues in the north-south direction. Adjacent to "I" Street, the Union Pacific Railroad tracks are elevated approximately 10-feet above natural ground surface; these railroad tracks serve as a physical boundary between the City of Tulare and the Matheny Tract. The southern portion is (South Matheny) generally bounded by Road 96 on the west and Prine and Matheny Avenues in the north-south direction. Matheny Tract is bordered by agriculture lands to the west, north and south; agriculture land also lies between the northern and southern portions of the community.

As indicated in the Feasibility Report, the community has a population of 1,212 (United States 2010 Census). There are 296 primarily rural residential lots with average size being 0.5 acres; however, many lots have multiple dwellings or mobiles homes on the property. The Matheny Tract was originally developed in the 1960s as two tracts, the first on the northeast corner of Addie Avenue and Road 96 (Pratt Street) and the second south of the West Oakland Colony Ditch and east of Road 96. The northern portion of the community was developed with predominantly 1-acre or near-1-acre parcels, while the southern portion was developed with mostly 0.5-acre parcels.¹³

¹³ Final Project Feasibility Report Matheny Tract Wastewater System Tulare County, California. Page 2. Prepared by Provost & Pritchard Consulting Group February 2016.

Matheny Tract consists mainly of existing single-family homes fronting on paved County road rights-of-way with dirt shoulders (i.e., without curb and gutter). Similarly, surrounding areas are served by semi-rural paved, two-lane roads with rough-graded, unpaved, gravel shoulders. All proposed pipelines would be installed within existing County rights-of-way. Occasionally, pipelines would require trenching across paved roadways to connect to other components of the pipeline infrastructure, as is the case with the inter-tie with existing City of Tulare wastewater trunk pipeline (with flows eventually reaching the Wastewater Treatment Facility) located near the intersection of Paige Avenue (Avenue 216) and Road 96 (Pratt Street), approximately 0.22 miles north of Matheny Tract. Land uses in the vicinity are primarily related to agricultural production and associated uses, and there are approximately 320 residences within Matheny Tract and approximately 10 rural residences adjacent to (within ½ mile) of the Project area.

REGULATORY SETTING

Federal Agencies & Regulations - None that apply to the Project

State Agencies & Regulations- None that apply to the Project

Local Policy & Regulations- Although the County has numerous General Plan policies that apply to parks and recreational activities/opportunities, the nature of the Project results in no policies that apply to the Project.

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 accompanying growth of persons. No new housing is proposed as part of the proposed Project. Therefore, ***No Impact*** would occur.

The Project is being recommended to remedy existing public health issues within the unincorporated community of Matheny Tract. The proposed wastewater pipelines would be adequately sized to serve the community's existing needs and are not intended to provide additional capacity for substantial amounts of future development. Typically, the increased use of parks and recreational facilities result from the addition of new housing and the accompanying growth of population. However, no new housing is proposed as part of the Project. Therefore, ***No Project-specific Impact*** would occur.

Cumulative Impact Analysis:

No Impact

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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 Project does not include housing or the accompanying population growth. As such, ***No Cumulative Impact*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would 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***

The Project does not include new recreational facilities or the expansion of recreational facilities. As such, ***No Project-specific Impacts*** would 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, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

As noted earlier, the Project does not include new recreational facilities or the expansion of recreational facilities. As such, ***No Cumulative Impacts*** would occur.

Conclusion: ***No Impact***

As noted earlier, ***No Project-specific or Cumulative Impacts*** related to this Checklist Item would occur.

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REFERENCES

Tulare County General Plan 2030 Update, Background Report, February 2010

Tulare County Resource Management Agency, Parks and Recreation Branch, 2008

Tulare County Recirculated Draft Environmental Impact Report (SCH # 2006041162).

Tulare County Resource Management Agency, Parks and Recreation Branch, 2008; Automobile Club of Southern California, Tulare County Map.

National Park Service Overview, Updated January 1, 2017, which was accessed on June 6, 2017 at: <https://www.nps.gov/aboutus/news/upload/NPS-Overview-01-13-17.pdf>

California Department of Parks and Recreation, “About Us”, which was accessed on June 6, 2017 at: http://www.parks.ca.gov/?page_id=91

2010 United States Census

Provost & Pritchard Consulting Group, *Project Feasibility Report - Matheny Tract Wastewater System, Tulare County, California 2016*.

Chapter 3.16

Transportation/Traffic

SUMMARY OF FINDINGS

The Preferred/Proposed Project would result in *Less Than Significant Impacts With Mitigation* related to transportation and traffic. The impact analyses and determinations in this chapter are based upon information obtained from the References listed at the end of this chapter. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 2, City of Tulare option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. 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 would be considered as part of the potential environmental impact.

As noted in Guidelines 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.”

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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, 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 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 Project would result in the construction of wastewater collection laterals from each home or business within Matheny Tract and connect to collection lines in the various County rights-of-way abutting the homes and businesses. These collection lines would then intertie to a main line that would deliver the wastewater to the existing City of Tulare wastewater trunk pipeline (with flows eventually reaching the Wastewater Treatment Facility) located near the intersection of Avenue 216 (Paige Avenue) and Road 96 (Pratt Street), approximately 0.22 miles north of Matheny Tract. At least one lift station (or other appurtenant structures) may also be required. Construction-related activities would likely cause some interruption in the free-flow of traffic on these roadways; however, these disruptions would likely only involve periodic/short term closures of roadway segments or minor detours until construction is completed. The operations of the Project would have no effects to traffic flow or traffic volumes.

“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.

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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).”¹

“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 [2014-2040 Regional Transportation Plan & Sustainable Communities Strategy] 2014 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 2014 RTP contains goals aimed at protecting and enhancing various corridors. 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. Figures 3-18 and 3-19 [in the RTP] identify major corridors identified by Caltrans and [Tulare County Association of Governments] TCAG:

- 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.”²

¹ 2014-2040 Regional Transportation Plan & Sustainable Communities Strategy, Tulare County Association of Governments (TCAG), June 2014. Page 3-54.

² Ibid. 3-54 and 3-55.

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“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. TCAG will continue to move forward on these major projects, in close partnership with Caltrans and neighboring jurisdictions.”³

As indicated in the 2014 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 2014 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.

<u>V</u> olume =	Actual number of vehicles.
<u>C</u> apacity =	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

³ Op. Cit. 3-55.

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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 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 no ability to dissipate even the most minor disruption, and any incident can be expected to produce a 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

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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.”⁴

“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.”⁵

⁴ Op. Cit. 3-1 thru 3-4.

⁵ Op. Cit. 3-52.

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“Public Transit

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. 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. Public transportation in Tulare County also takes the form of shared-ride taxis, carpools and vanpools; dial-a-ride and specialized handicapped accessible services. Public transportation needs are met by either a fixed route or demand responsive (dial-a-ride) transit system. Fixed routes are generally used in the more populated urban areas while demand responsive transit and fixed route deviation are often used in rural areas and communities.

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:

- Combining purchasing of necessary equipment
- Insure 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 for senior citizens, and mental health organizations and programs for citizens with disabilities. TCAG reaches out to transportation providers identified in the Coordinated 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, Transportation Development Act (TDA) funds, and local funds including Measure R.”⁶

“Tulare County Area Transit (TCaT)

Tulare County [TCaT] has the largest land area to cover of all the transit providers in the County. The following is a summary of Tulare County's public transit system including a brief overview of the operations, fares, schedules, and short-range transportation development plans:

Tulare County Area Transit (TCaT) has been providing rural route service between various cities and towns since 1981. TCaT provides both rural route service and local demand responsive service

⁶ Op. Cit. 3-55 thru 3-56.

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in and around various County communities. TCaT operates 9 different fixed route services and provides a local dial-a-ride program between communities.

Coordination and Schedules:

TCaT offers four inter-city routes that operate seven days a week, one local circulator route that operates Monday through Saturday, and four other local circulators that operate Monday through Friday. Transit services are contracted through MV Transportation as of 2014. The routes cost \$1.50 (one-way) for regular fares. Seniors (60 & older), disabled, and Medicare cardholders pay a fare of \$0.75 between the hours of 9 AM and 3 PM.”⁷ TCaT provides transit service to Matheny Tract via Route 20, the Tulare, Matheny Tract, Tipton, Pixley, Teviston, Earlimart, Richgrove and Delano route (which runs seven days a week) is shown in Figure 3.16-1.⁸

Traffic

“The following criterion is a starting point in determining when a Traffic Impact Study (TIS) is needed. When a project:

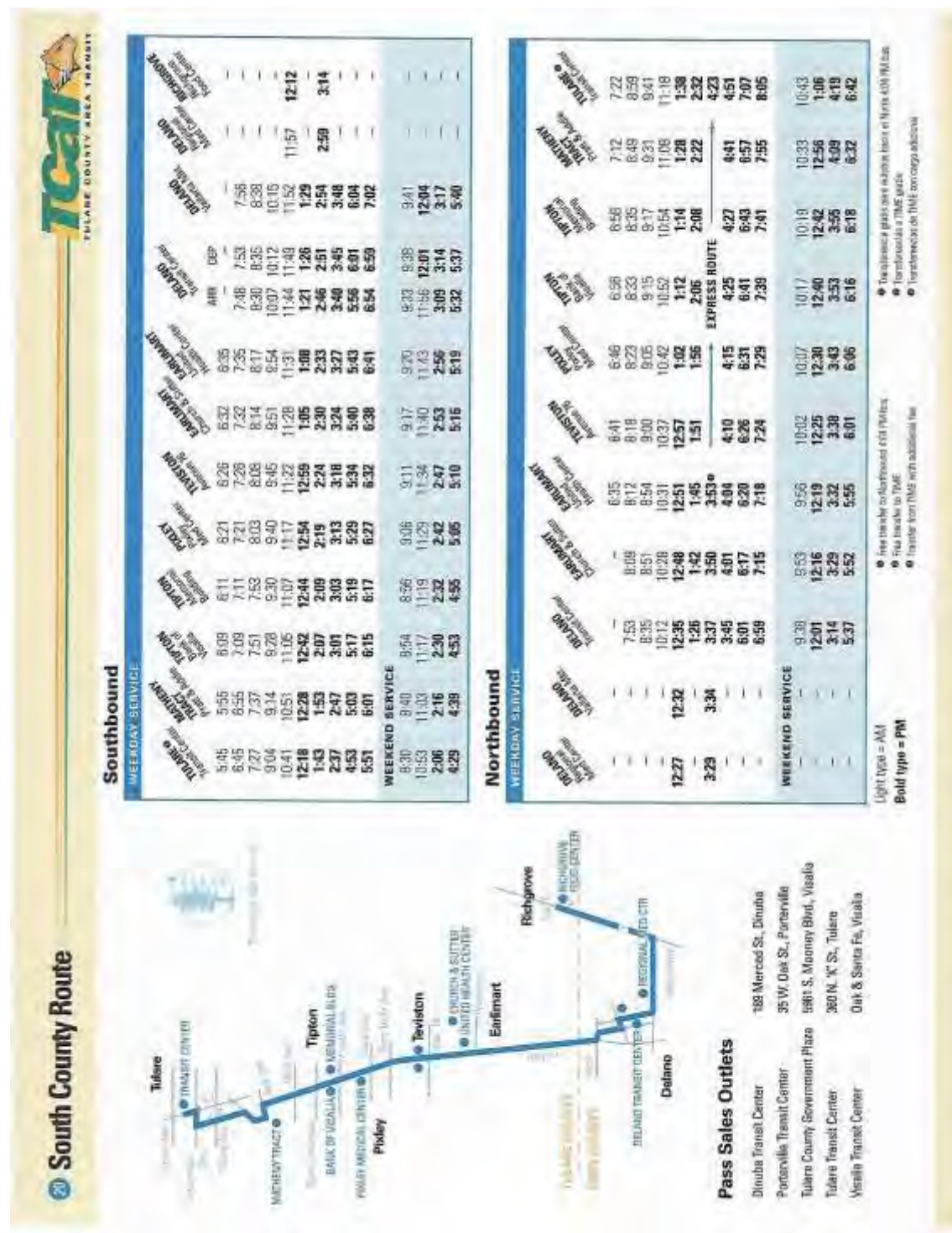
1. Generates over 100 peak-hour operational trips assigned to a State highway facility.
2. Generates 50 to 100 peak-hour operational trips assigned to a State highway facility – and, affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS “C” or “D”).
3. Generates 1 to 49 peak-hour operational trips assigned to a State highway facility – the following are examples that may require a full TIS or some lesser analysis:
 - 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).
 - 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.).”⁹

The Project would not result in the generation of these traffic volumes during construction or operation of the Project; therefore, a TIS is not required.

⁷ Op. Cit. 3-57 thru 3-58.

⁸ TCaT website accessible at: <http://tularecounty.ca.gov/rma/index.cfm/public-works/tulare-county-area-transit-tcat/route-20-south-county/>

⁹ 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



REGULATORY SETTING

Federal Agencies & Regulations

None that apply to the Project.

State Agencies & Regulations

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 Project would not generate permanent traffic increases during operation to warrant need for the preparation of a TIS.

Local Policy & Regulations

Tulare County General Plan Policies

The General Plan includes policies that apply to the proposed Project which are listed below.

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-1.16 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.

HS-1.9 Emergency Access - The County shall require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation.

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: *No Impact*

The Project does not require the construction of any new roadways. The Project would result in short-term, temporary traffic impacts during the construction phase. Additionally, following completion, the pipeline would not generate vehicle trips, with the exception of routine maintenance-related trips. Therefore, the Project would not 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. As such, the Project would result in *No Project-specific Impacts*.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County.

The Project would only contribute to cumulative impacts related to this Checklist Item if project-specific impacts were to occur. Since the Project would not result in Project-specific impacts, *No Cumulative Impacts* would occur.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

As noted earlier, there are *No Project-specific or Cumulative Impacts* related to this Checklist Item.

- 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*

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The County does not have a congestion management plan applicable to the Project roadways.

Traffic generated by the Project would occur only during construction related activities. Traffic increases would, therefore, be short-term/temporary and would consist of equipment transport vehicles as well as employee and management vehicles. Less than twenty (20) vehicle trips per day are estimated over a construction period duration of approximately nine months. The operation of the main or other pipelines would not require any vehicle trips other than routine maintenance-related trips. Therefore, the Project would result in a ***Less Than Significant Project-specific Impact***.

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

The geographic area of this cumulative analysis is Tulare County.

Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. Traffic generated by the Project would occur during construction-related activities. Traffic increases would, therefore, be short-term/temporary and would consist of equipment transport vehicles as well as employee and management vehicles. Since the Project would result in less than significant Project-specific impacts, ***Less Than Significant Cumulative Impacts*** would occur.

Mitigation Measure(s): ***None Required***

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

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

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 Project does not consist of any elements that would impact air traffic patterns. Therefore, the Project would result in ***no Project-specific impacts***.

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

The geographic area of this cumulative analysis is Tulare County.

The Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. Since the Project would not result in potential impacts, ***No Cumulative Impact*** would occur.

Mitigation Measure(s): ***None Required***

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Conclusion: *No Impact*

As noted earlier, there are *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: *No Impact*

The Project does not consist of any elements that would substantially increase hazards as a result of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Therefore, the Project would result in *no Project-specific impacts*.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis is Tulare County.

The Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. Since the Project would not result in Project-specific potential impacts, *No Cumulative Impact* would occur.

Mitigation Measure(s): *None Required*

Conclusion: *No Impact*

As noted earlier, there are *No Project-specific or Cumulative Impacts* related to this Checklist Item.

e) Result in inadequate emergency access?

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

The Project construction-related activities may temporarily interrupt access to approximately properties. However, the interruptions would be no longer than a few hours while trenching- and installation-related activities occur at each property's access driveway. It is possible that that Project construction-related activities would temporarily impact vehicle travel lanes while the pipelines are being installed underneath roadways. With the implementation of **Mitigation Measure 3.16-1**, the Project would result in a *Less Than Significant Impact*.

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

The geographic area of this cumulative analysis is Tulare County.

The Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. With implementation of **Mitigation Measure 3.16-1**,

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potential Project-specific impacts would be reduced to less than significant. Therefore, the Project's cumulative impacts would be ***Less Than Significant With Mitigation***.

Mitigation Measure(s):

3.16-1 Fences, barriers, lights, flagging, guards, and signs will be installed as determined appropriate by the public agency having jurisdiction to give adequate warning to the public of the construction and of any potentially dangerous condition to be encountered as a result thereof.

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

With implementation of **Mitigation Measure 3.16-1**, potential Project-specific and Cumulative Impacts related to this Checklist Item would be reduced to ***Less Than Significant***.

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: ***No Impact***

The Project does not consist of any elements that would conflict with policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. The Project would result in ***no Project-specific impacts***.

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

The geographic area of this cumulative analysis is Tulare County.

The Project would only contribute to cumulative impacts related to this Checklist Item if Project-specific impacts were to occur. Since the Proposed Project would not result in Project-specific impacts, ***No Cumulative Impact*** would occur.

Mitigation Measure(s): ***None Required***

Conclusion: ***No Impact***

As noted earlier, there are ***No Project-specific or Cumulative Impacts*** related to this Checklist Item.

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REFERENCES

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Tribal Cultural Resources

Chapter 3.17

SUMMARY OF FINDINGS

The proposed Matheny Tract Wastewater System Project (Project) will result in ***Less Than Significant Impacts With Mitigation*** to Cultural Resources. The Southern San Joaquin Valley Historical Resources Information Center, Bakersfield (Center) conducted a cultural resources records search in January 19, 2017 at the request of RMA Planning Branch staff, which is included as Appendix “C”. In addition to the Center’s search, the Native American Heritage Commission (NAHC) conducted a Sacred Lands File (SLF) search and provided their results on January 10, 2017 (see 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 Less Than Significant Impacts With Mitigation.

INTRODUCTION

California Environmental Quality Act (CEQA) Requirements

Several CEQA statutes and guidelines address requirements for cultural resources, including historic and archaeological resources.¹ 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 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 cultural resources on the proposed

¹ “CEQA and Historical Resources” CEQA Technical Advice Series” <http://ceres.ca.gov/ceqa/more/tas/page3.html>

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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.”²

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 January 19, 2017 to Tulare County RMA. According to search results, there have been three previous cultural resource studies conducted within the project area. There has been one additional study conducted within the one-half mile radius. There are no recorded cultural resources with the project area and it is not known if any exist there. There is one recorded resource within the one-half mile radius, P-54-003608, the Tulare Irrigation Canal.³

Native American Consultation

The Office of Planning and Research, State Clearinghouse (OPR/SCH), received a submittal from the Tulare County RMA on January 13, 2017, regarding a Notice of Preparation (NOP) of a

² CEQA Guidelines Appendix “G” Item XVII. Tribal Cultural Resources.

³ California Historical Resources Information Center (CHRIS), Southern San Joaquin Valley Information Center (SSJVIC) located at California State University, Bakersfield; January 19, 2017. Included as Appendix “C” of this DEIR.

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Draft Environmental Impact Report (DEIR) for the Matheny Tract Wastewater System Project. The Native American Heritage Commission (NAHC) was included in the list of agencies to be notified by OPR/SCH and provided a response to the NOP on January 19, 2017. The NAHC maintains a contact list of Native American Tribes as having traditional lands located within the County's jurisdiction. On January 6, 2017, Tulare County RMA submitted a Sacred Lands File Search (SLF) to the NACH and received a reply on January 10, 2017 indicating "negative results" of the SLF and provided a recommended list of four (4) Native American Tribes the County should consult with regarding the Project. As such, on January 12, 2017, the County mailed (via certified-mail) tribal consultation letters to the four tribes recommended by the NAHC (see Appendix "C").

REGULATORY SETTING

Federal Agencies & Regulations

The National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) established federal regulations for the purpose of protecting significant cultural resources. The legislation established the 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. The NHPA also established requirements for federal agencies to consider the effects of proposed federal Projects on historic properties (Section 106, NHPA). Federal agencies and recipients of federal funding are required to initiate consultation with the SHPO as part of the Section 106 review process.⁴

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.⁵

"State Historic Preservation Officers (SHPOs) administer the national historic preservation program at the State level, review National Register of Historic Places nominations, maintain data on historic properties that have been identified but not yet nominated, and consult with

⁴ Advisory Council on Historic Preservation, <http://www.achp.gov/nrcriteria.html> (updated March 11, 2008)

⁵ Advisory Council on Historic Preservation, State Historic Preservation Officers, <http://www.achp.gov/shpo.html>, (updated Feb. 24, 2009)

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Federal agencies during Section 106 review. SHPOs are designated by the governor of their respective State or territory.”⁶

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 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.⁷

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.⁸

As indicated in Chapter 3.5 Cultural Resources, The Southern San Joaquin Valley Historical Resources Information Center, Bakersfield (Center) conducted a cultural resources records search in January 19, 2017 at the request of RMA Planning Branch staff. The CHRIS indicated that there are no recorded cultural resources within the project area and one recorded resource within a one-half mile radius (P-54-003608, the Tulare Irrigation Canal) 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. The CHRIS search results are included in Appendix “C” of this DEIR.

Tribal Consultation Requirements: SB 18 (Burton, 2004)

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

⁶ Advisory Council on Historic Preservation, State Historic Preservation Officers, <http://www.achp.gov/shpo.html>, accessed April 21, 2017.

⁷ California Office of Historic Preservation, About OHP, http://ohp.parks.ca.gov/?page_id=1066

⁸ California Register: Criteria for Designation, http://www.ohp.parks.ca.gov/?page_id=21238

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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.⁹

As this Project does not involve adoption of a new or an amendment to an existing general plan, AB 18 does not apply to this case. As such, it was not necessary to seek tribal consultation regarding this Project.

Tribal Consultation Requirements: AB 52 (Gatto, 2014)¹⁰

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 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.

Existing law establishes the Native American Heritage Commission (NAHC) and vests the commission with specified powers and duties. This bill required the NAHC to provide each California Native American tribe, as defined, on or before July 1, 2016, with a list of all public agencies that may be a lead agency within the geographic area in which the tribe is traditionally and culturally affiliated, the contact information of those agencies, and information on how the tribe may request those public agencies to notify the tribe of projects within the jurisdiction of those public agencies for the purposes of requesting consultation.

The NAHC provides protection to Native American burials from vandalism and inadvertent destruction, provides a procedure for the notification of most likely descendants regarding the discovery of Native American human remains and associated grave goods, brings legal action to prevent severe and irreparable damage to sacred shrines, ceremonial sites, sanctified cemeteries and place of worship on public property, and maintains an inventory of sacred places.¹¹

⁹ Government Code §65352.3

¹⁰ Assembly Bill No. 52, Chapter 532, http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB52, accessed November 22, 2016

¹¹ Native American Heritage Commission, About the Native American Heritage Commission, <http://nahc.ca.gov/about/>, accessed November 23, 2016.

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The NAHC performs a Sacred Lands File search for sites located on or near the Project site upon request. The NAHC also provides local governments with a consultation list of tribal governments with traditional lands or cultural places located within the Project Area of Potential Effect. As indicated on the NAHC's letter of January 10, 2017, a Sacred Lands File check indicated negative results (that is, no Sacred Lands were identified) for the Project location (See Appendix "C" of the DEIR at NAHC Sacred Lands File search letter dated January 10, 2017). An opportunity has been provided to Native American tribes listed by the Native American Heritage Commission during the CEQA process as required by AB 52, and no tribes responded to the consultation requests within the mandatory response time-frames; therefore, this DEIR has been completed consistent and compliant with AB 52. (See Appendix "C" of the DEIR regarding Tribal consultation process).

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, 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.”¹²

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:

¹² CEQA Guidelines, Section 15064.5(c)

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- “(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.¹³
- “(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
 - (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.¹⁴

¹³ Ibid. Section 15064.5(d).

¹⁴ Ibid. Section 15064.5(e).

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“(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.”¹⁵

Local Policy & Regulations

Tulare County General Plan Policies

The General Plan has a number of policies that apply to Projects within Tulare County.¹⁶ General Plan policies apply to the proposed Project are listed as follows:

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.

¹⁵ Ibid. Section 15064.5(f)

¹⁶ Tulare County General Plan 2030 Update, Part 1 – Goals and Policies Report

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:

- 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***

Although no historical, cultural, or tribal cultural resources were identified by the CHRIS or Sacred Lands Files (SLF) searches, and all work will be limited to existing, disturbed rights-of-way, it is possible that subsurface discoveries could occur. Also, no responses were received from the tribes that were notified in compliance with AB 52 requirements through a list of potentially affected tribes provided by the NAHC. As such, 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 17-1 and 17-2** 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 Cumulative Impacts With Mitigation*** with the implementation of Mitigation Measures 17-1 and 17-2.

Mitigation Measure(s): ***See Below***

- 17-1 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

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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.

- 17-2 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.

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Therefore, as noted earlier, in the unlikely event that Tribal Resource are discovered, implementation of **Mitigation Measures 17-1 and 17-2** would result in *Less Than Significant Project-specific With Mitigation* because 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 17-1 and 17-2**.

- 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?

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 Measure(s): *See Mitigation Measures 3.17-1 and 3.17-2*

See earlier discussion at Item a).

Conclusion: *Less Than Significant Impact With Mitigation*

See earlier discussion at Item a).

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ACRONYMS

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

REFERENCES

Advisory Council on Historic Preservation, State Historic Preservation Officers, accessed June 7, 2017 at: <http://www.achp.gov/shpo.html>, updated Feb. 24, 2009

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Assembly Bill No. 52, Chapter 532 accessed June 7, 2017 at:
http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB52,

CEQA Guidelines

California Historical Resources Information Center (CHRIS), Southern San Joaquin Valley Information Center (SSJVIC) located at California State University, Bakersfield; January 19, 2017. Included as Appendix “C” of this DEIR

California Office of Historic Preservation, accessed June 7, 2017 at: <http://ohp.parks.ca.gov/>

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<http://ceres.ca.gov/ceqa/more/tas/page1.html>

Native American Heritage Commission, About the Native American Heritage Commission accessed June 7, 2017 at: <http://nahc.ca.gov/about/>.

Native American Heritage Commission, Sacred Lands File results dated January 10, 2017. (See Appendix “C” of the DEIR at NAHC Sacred Lands File)

National Park Service Program: State Historic Preservation Officers, accessed June 7, 2017 at:
<http://www.cr.nps.gov/nr/shpolist.htm>

Tulare County 2030 General Plan, August 2012

Tulare County 2030 General Plan Background Report, February 2010

Chapter 3.18

Utilities and Service Systems

SUMMARY OF FINDINGS

The Preferred/Proposed Project would result in *Less Than Significant* impacts related to utilities and services systems, and therefore, no mitigation measures are required. The impact analyses and determinations in this chapter are based upon information obtained from the References listed at the end of this chapter. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 2, City of Tulare option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. 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 CEQA Guidelines Section 15126, all phases of the Project would 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

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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.”¹

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 Project is provided and includes the identification of feasible mitigation measures (if necessary and feasible) to avoid or lessen the impacts.

Thresholds of Significance

- Increase wastewater beyond existing treatment capacity per the RWQCB
- Result in the need for waste water infrastructure that would cause impacts
- Result in the need for waste water infrastructure that would cause impacts
- Result in the need for water supplies or entitlements
- Result in the determination by the wastewater provider that it has adequate capacity
- Served by a landfill with sufficient permitted capacity to Project’s needs
- Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs

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.).”²

“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.”³

¹ CEQA Guidelines, § 15126.2 (a)

² Tulare County General Plan Update 2030. Page 14-3.

³ Ibid. 14-3.

REGULATORY SETTING

Federal Agencies & Regulations

U.S. Environmental Protection Agency (U.S. EPA) - Federal Regulation Title 40, Part 503

In 1993, the U.S. Environmental Protection Agency (U.S. EPA) promulgated Standards for the Use or Disposal of Sewage Sludge (Code of Federal Regulations Title 40, Part 503), which establish pollutant limitations, operational standards for pathogen and vector attraction reduction, management practices, and other provisions intended to protect public health and the environment from any reasonably anticipated adverse conditions from potential waste constituents and pathogenic organisms.

This part establishes standards, which consist of general requirements, pollutant limits, management practices, and operational standards, for the final use or disposal of sewage sludge generated during the treatment of domestic sewage in a treatment works. Standards are included in this part for sewage sludge applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. Also included in this part are pathogen and alternative vector attraction reduction requirements for sewage sludge applied to the land or placed on a surface disposal site.

In addition, the standards in this part include the frequency of monitoring and recordkeeping requirements when sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. Also included in this part are reporting requirements for Class I sludge management facilities, publicly owned treatment works (POTWs) with a design flow rate equal to or greater than one million gallons per day, and POTWs that serve 10,000 people or more.⁴

Resource Conservation and Recovery Act (RCRA)⁵

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:

⁴ Title 40: Protection of Environment Part 503: Standards for the Use or Disposal of Sewage Sludge, <http://www.ecfr.gov/cgi-bin/text-id.x?SID=faac2040ebd49d57cc2786437545c8cf&node=40:30.0.1.2.42.1.13.1&rgn=div8>

⁵ United States Environmental Protection Agency, <http://www.epa.gov/epawaste/laws-regs/rcrahistory.htm>

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- ✓ 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.

State Agencies & Regulations

The Integrated Waste Management Act (Assembly Bill 939)

In 1989 the California legislature passed the Integrated Waste Management Act of 1989, known as AB 939. The bill mandates a reduction of waste being disposed: jurisdictions were required to meet diversion goals of 25% by 1995 and 50% by the year 2000. AB 939 also established an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance.

The Regional Water Quality Control Board – Biosolids

In California, the beneficial reuse of treated municipal sewage sludge (*a.k.a.*, biosolids) generally must comply with the California Water Code in addition to meeting the requirements specified in Part 503 in Title 40 of the Code of Federal Regulations.

In July 2004, the State Water Resources Control Board adopted Water Quality Order No. 2004-12-DWQ (General Order), and certified a supporting statewide Programmatic Environmental Impact Report (PEIR)

The General Order incorporates the minimum standards established by the Part 503 Rule and expands upon them to fulfill obligations to the California Water Code. However, since California does not have delegated authority to implement the Part 503 Rule, the General Order does not replace the Part 503 Rule. The General Order also does not preempt or supersede the authority of local agencies to prohibit, restrict, or control the use of biosolids subject to their jurisdiction, as allowed by law.

Persons interested in seeking coverage under the General Order should contact the appropriate Regional Water Quality Control Board. Only applicants who submit a complete *Notice of Intent* (NOI), appropriate application fee, and are issued a Notice of Applicability by the executive officer of the appropriate Regional Water Quality Control Board are authorized to land apply

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biosolids at an agricultural, horticultural, silvicultural, or land reclamation site as a soil amendment under the General Order.

State Water Resources Control Board (formerly California Department of Public Health),
Divisions of Drinking Water and Clean Water

Recycled water regulations are administered by both Central RWQCB and the California State Water Resources Control Board (SWRCB). The regulations governing recycled water are found in a combination of sources, including the Health and Safety Code, Water Code, and Titles 22 and 17 of the California Code of Regulations (CCR). Issues related to the treatment and distribution of recycled water are generally under the permitting authority of RWQCB and the Clean Water Division of the SWRCB.

CalRecycle (formerly California Integrated Waste Management Board)

CalRecycle governs solid waste regulations on the state level, delegating local permitting, enforcement, and inspection responsibilities to Local Enforcement Agencies (LEA). Regulations authored by CalRecycle (Title 14) were integrated with related regulations adopted by the State Water Resources Control Board (SWRCB) pertaining to landfills (Title 23, Chapter 15) to form CCR Title 27.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies, in addition to authorizing video franchises. In 1911, the CPUC was established by Constitutional Amendment as the Railroad Commission. In 1912, the Legislature passed the Public Utilities Act, expanding the Commission's regulatory authority to include natural gas, electric, telephone, and water companies as well as railroads and marine transportation companies. In 1946, the Commission was renamed the California Public Utilities Commission. It is tasked with ensuring safe, reliable utility service is available to consumers, setting retail energy rates, and protecting against fraud.

Local Policy & Regulations

Tulare County Local Agency Formation Commission

Since 1963, when State law created Local Agency Formation Commissions (LAFCO), commissions in each California County have encouraged the orderly formation of local government agencies, preserved agricultural and open space land, and discouraged urban sprawl. Tulare County LAFCO has jurisdiction over changes in local government organization occurring within Tulare County. The most significant recent changes are the result of the passage of AB 2838 (Hertzberg) in 2000, which significantly revised the Act and substantially strengthened the

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powers of LAFCO. The Act is now known as the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000.

Tulare County LAFCO's Policy and Procedure Manual has policies that apply to projects within Tulare County. Formation of some level of governing entity will be necessary in order to construct, operate, and maintain the proposed infrastructure. The policies that may relate to the Project are listed as follows:

Policy Number A-2 LAFCO Process - The powers and responsibilities of Local Agency Formation Commissions (LAFCOs) are defined in the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code Section 56000 et seq.)

Policy Number C-1 Factors and Standards to be considered in Review of Proposal - The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 sets a number of factors that are to be considered when reviewing proposals for changes of organization, reorganization, incorporations, dissolution and other proposals processed by LAFCO

Policy Number C-6 Extraterritorial Services Agreement - The Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 authorizes LAFCO to approve proposals to extend services beyond the jurisdictional boundary of a local agency, where the territory subject to receiving such services is within the affected agency's sphere of influence in anticipation of a later change of organization.

Tulare County General Plan Policies

The General Plan has policies that apply to potable water, wastewater, and storm water-related projects within Tulare County. General Plan policies that apply to the Project are listed as follows:

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-2.5 New Systems or Individual Wells - Where connection to a community water system is not feasible per PFS-2.4: Water Connections, service by individual wells or new community systems may be allowed if the water source meets standards for quality and quantity.

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-3.4 Alternative Rural Wastewater Systems - The County shall consider alternative rural wastewater systems for areas outside of community UDBs and HDBs that do not have current systems or system capacity. For individual users, such systems include elevated leach fields, sand filtration systems, evapotranspiration beds, osmosis units, and holding tanks. For larger

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generators or groups of users, alternative systems, including communal septic tank/leach field systems, package treatment plants, lagoon systems, and land treatment, can be considered.

PFS-4.1 Stormwater Management Plans - The County shall oversee, as per Community Plan Content Table PF-2.1 and Specific Plan Content, Hamlet Plans Policy PF-3.3, and Table LU-4.3, the preparation and adoption of stormwater management plans for communities and hamlets to reduce flood risk, protect soils from erosion, control stormwater, and minimize impacts on existing drainage facilities, and develop funding mechanisms as a part of the Community Plan and Hamlet Plan process.

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-5.8 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) **Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**

Project Impact Analysis:

Less Than Significant Impact

As noted earlier, the Preferred Alternative (Alternative 2, City of Tulare option) is used in evaluating this resource item. Based on information contained in the Feasibility Report, it is anticipated that the raw wastewater characteristics from the unincorporated community of Matheny Tract would be as shown on Table 3.17-1⁶ (Table 3-3 in the Feasibility Report):

Table 3.18-1 Influent Characteristics	
Constituent	Design Values
BOD 5 day (mg/l)	350
TSS (mg/l)	400
Total N (mg/l)	70
Ec (µmhos/cm)	Source +500

⁶ Project Feasibility Report Matheny Tract Wastewater System, Tulare County, California, 2017. Page 15.

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As indicated in the Feasibility Report, at section 5.3.1.3 Capacity of Neighboring System, “The City of Tulare’s WWTP has two components, a Domestic Plant and an Industrial Plant. The Domestic Plant has a permitted capacity of 6.0 MGD, with a plan to increase the capacity to 8 MGD in the future. Of the current 6.0 MGD capacity, existing development within the City uses 4.9 MGD and approved future development will utilize 0.2 MGD, for a total committed capacity of 5.1 MGD, some 85% of the total permitted capacity. Of the remaining 0.9 MGD capacity, the Matheny Tract use would be 0.13 MGD, bringing the plant to 87% of available capacity. The Industrial Plant has a permitted capacity of 12.0 MGD with a total committed capacity of 7.6 MGD, approximately 65% of the permitted capacity.

The RWQCB begins to look for applications for plant and permit expansion when ADWF exceeds 80% of available capacity. The City filed a Report of Waste Discharge in support of phased increases in discharge flow including a future increase to 8.0 MGD; in the meantime, the City intends to postpone capital expenditures for the Domestic Plant upgrade by using the available treatment capacity of the Industrial Plant to treat the excess Domestic Plant influent. The Matheny Tract would not be the trigger for the expansion of the domestic WWTP, since it is already in the window where planning for expansion must begin. However, the community should be required to pay its pro-rata share of the cost of the needed improvements at the WWTP. The project would be required to compensate the City for the capacity used by paying capacity and possibly Development Impact fees in an amount to be determined. An estimation of \$2,500 per equivalent dwelling unit has been included based on experience with similar, nearby communities, and can only be expected to rise with additional funding obligations.

The ongoing responsibility for Operation & Maintenance (O&M) costs and Replacement costs of the project would be borne by the City; the funding for those expenses would be built into the sewer rates paid by the residents of the Matheny Tract.”⁷

Also as stated in the Feasibility Report, at section 3.3 Water Quality; “The community is solely reliant on groundwater supply. The drinking water standards specify allowable levels for constituents of concern in the area (Arsenic and Nitrate). The Maximum Contaminant Levels (MCLs) for Arsenic and Nitrate are 10 µg/L and 45 mg/L, respectively. In addition, the water quality characteristics must meet the Federal and State drinking water standards for other regulated constituents. 3.3.1 Past Water System Violations PMWC has received several Notices of Violation from the California Department of Public Health (CDPH). In 1999 and 2000, Well 2 was cited several times for exceeding the MCL for nitrate, resulting in the well’s condemnation in 2002 by DHS. With the development of the lower 10 µg/L MCL for Arsenic in 2006, the remaining two wells of the water system are now in exceedance.

The nitrate levels in Well 2 were sampled in 1999 and 2000 with reported levels 60 mg/L in both instances. The presence of Nitrate at levels significantly in excess of the MCL in Well 2 was attributed to the shallowness of the well; the shallow groundwater has been affected by

⁷ Ibid. 27-28.

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both septic systems and agricultural uses in the surrounding area. This well is no longer in use by Pratt MWC for this reason.

From 2002 to 2010, Pratt MWC conducted 8 and 12 sampling events on Wells 1 and 3, respectively. The average Arsenic concentration was 15.0 µg/L at Well 1 and 11.9 µg/L at Well 3; substantially above the 10 µg/L MCL.”⁸

As further discussed in the Chapter 5 Alternatives (of this DEIR), Alternative 2 (connection to the City of Tulare WWTF), would provide the most effective, efficient, and best cost-benefit when compared to Alternative 1 (On-Site Systems with a Septic Tank Maintenance District) and Alternative 3 (Gravity Collection System with Community Wastewater System). As indicated in the Feasibility Report, Alternative 4 (No Project) would retain the status quo and, “This alternative would entail no improvements to the community; the existing septic systems would remain unimproved. As existing septic systems fail, they would either remain in use after failure or be replaced with similar systems, which would continue to impact the groundwater quality in the area.”⁹

As noted earlier (based on the information contained in the Feasibility Report), of the remaining 0.9 MGD capacity of the City of Tulare domestic WWTP (plant), Matheny Tract use would be 0.13 MGD, bringing the plant to 87% of available capacity.¹⁰ The Matheny Tract project would not be the trigger for the expansion of the domestic WWTP, since it is already in the window where planning for expansion must begin. The connection of Matheny Tract to the City of Tulare system may result in modifications to the existing Waste Discharge Requirements for the City. The RWQCB would need to be notified of the intended connection to determine if there would be revisions to the existing Waste Discharge Permit. It is possible that a new Report of Waste Discharge would be required to update the existing Waste Discharge Requirements (Order R5-2013-0019; April 2013). Therefore, with revisions to the existing Waste Discharge Permit, Project-specific impacts would be ***Less Than Significant***.

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.

The Project would generate a minimal increase in the amount of wastewater to be treated by the City of Tulare’s Wastewater Treatment Facility and would remain under the permitted amount of 6.0 mgd. Based on the analysis above, the Project would have less than significant impacts with revisions to the existing Waste Discharge Permit. Therefore, cumulative impacts would also be ***Less Than Significant***.

⁸ Op. Cit. 15-16.

⁹ Op. Cit. 32.

¹⁰ Op. Cit. 27.

Mitigation Measure(s): *None Required*

Conclusion: *Less Than Significant Impact*

As noted earlier, Project-specific impacts would be less than significant, and there would be *No Cumulative Impact* related to this Checklist item.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Project Impact Analysis: *Less Than Significant Impact*

As indicated in the analysis in Item 17 a), the City of Tulare's Wastewater Treatment Facility has adequate capacity to serve Matheny Tract. Therefore, Project-specific impacts would be *Less Than Significant*.

Cumulative Impact Analysis: *No Impact*

The geographic area of this cumulative analysis 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 Project would result in the generation of a minimal increase in the amount of wastewater to be treated by the City of Tulare's Wastewater Treatment Facility as it has sufficient capacity to accept this increase. Therefore, *No Cumulative Impacts* would occur.

Conclusion: *Less Than Significant Impact*

As noted previously, Project-specific impacts would be less than significant, and there would be *No Cumulative Impact* related to this Checklist Item.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Project Impact Analysis: *Less Than Significant Impact*

The Project site consists mainly of existing rural and semi-rural paved roads and existing road rights-of-way. The wastewater pipelines would be trenched in the existing rights-of-way that generally consist of gravel road shoulders, which is typical of roadways in the area. Occasionally, pipelines would require trenching through paved roadways to connect to other

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components of the pipeline infrastructure, as is the case with the inter-tie with existing Tulare wastewater treatment plant pipeline at the intersection of Avenue 216 (Paige Avenue) and Road 96 (Pratt Street).

To prevent water and wind erosion during the construction-related activities period, a Storm Water Pollution Prevention Plan (SWPPP) would be developed for the Project as required for all projects that disturb more than one acre in area. As part of the SWPPP, the applicant (in this instance the County of Tulare) would be required to provide erosion control measures to protect the topsoil. Any stockpiled soils would be watered and/or covered to prevent loss due to wind erosion as part of the SWPPP during construction-related activities. As a result of these efforts, loss of topsoil and substantial soil erosion during the construction-related activities period are not anticipated. With implementation of the required SWPPP, Project-specific impacts would be ***Less Than Significant***.

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

The geographic area of this cumulative analysis 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.

With implementation of the above noted SWPPP, minimal (if any) impacts would occur during the construction phase of the Project. Following completion of construction-related activities, there would be no impacts. Therefore, cumulative impacts would be ***Less Than Significant***.

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

As noted earlier, as the Project would be designed and built in accordance with regulatory agency requirements. Therefore, Project-specific and cumulative impacts would be ***Less Than Significant*** related to this Checklist Item.

d) Have sufficient water supplies available to serve the project been identified from existing entitlements and resources, or are new or expanded entitlements needed?

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

The Project involves the construction of wastewater pipelines. Minimal water would be used during the construction phase for dust suppression. Construction-related water used for dust suppression would come from an existing public water system and would be transported to each segment of the pipeline. Therefore, the Project would utilize water from existing sources only during the short-term, temporary construction-related activities phase and would not require new or expanded water entitlements. As such, Project-specific impacts would be ***Less Than Significant***.

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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, the Project would utilize water from existing sources only during the short-term, temporary construction-related activities phase for dust suppression and would not require new or expanded water entitlements. As such, Cumulative impacts would be *Less Than Significant*.

Conclusion: *Less Than Significant Impact*

The Project would utilize a small amount of water during construction for dust control, and would not use any water during daily operation beyond the amount currently used by the existing septic systems. As discussed earlier, Project-specific and cumulative impacts would be *Less Than Significant*.

- e) **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: *Less Than Significant Impact*

As indicated in the analysis in Item 17 a), the City of Tulare's Wastewater Treatment Facility has adequate capacity to serve Matheny Tract. The City of Tulare and the County of Tulare are in the process of identifying/discussing specifics to allow connection to the City's wastewater treatment system. As such, Project-specific impacts would be *Less Than Significant*.

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.

As indicated in the analysis in Item 17 a), the City of Tulare's Wastewater Treatment Facility has adequate capacity to serve the unincorporated community of Matheny Tract. As noted earlier, the City of Tulare and the County of Tulare are in the process of identifying/discussing specifics to allow connection to the City's wastewater treatment system. As such, *No Cumulative Impacts* related to this Checklist Item would occur.

Conclusion: *Less Than Significant Impacts*

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As noted previously, Project-specific impacts would be less than significant, and there would be ***No Cumulative Impact*** related to this Checklist Item.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

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

The Project would generate minimal solid waste (most likely in the form of construction-related materials) as a result of the construction phase of the Project. Solid waste materials would be properly disposed of at a local landfill (most likely, either County owned and operated Teapot Dome or Visalia Landfills as they are the nearest, operating landfills). Upon completion of construction-related activities, the Project would not result in the generation of any solid waste. Therefore, ***Less Than Significant Impacts*** would 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, General Plan background Report, and/or Tulare County 2030 General Plan EIR.

As the Project would comply with applicable General Plan policies and there is adequate capacity at landfills to accommodate any solid waste resulting from the Project, there would be ***No Project-specific or Cumulative Impacts***.

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

As noted previously, Project-specific impacts would be less than significant, and there would be ***No Cumulative Impact*** related to this Checklist Item.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

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

Project solid waste resulting from construction-related activities would be disposed of by the County's franchised hauler on a periodic basis and would be properly disposed at a County owned/operated landfill (likely either Teapot Dome or Visalia Landfills). All solid waste disposal procedures would be in compliance with the relevant provisions of AB 32 and AB 939. As such, there would be ***No Project-specific Impacts*** related to this Checklist Item.

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

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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 the Project would comply with applicable General Plan policies and there is adequate capacity at landfills to accommodate any solid waste resulting from the Project, there would be ***No Project-specific or Cumulative Impacts***.

Conclusion: ***No Impact***

No Project-specific or Cumulative Impacts related to this Checklist Item would occur.

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ABBREVIATIONS

NPDES	National Pollution Discharge Elimination System
RCRA	Resource Conservation and Recovery Act
RWQCB	Regional Water Quality Control Board
SWPPP	Storm Water Pollution Prevention Plan
UST	Underground Storage Tank

REFERENCES

Tulare County General Plan Update 2030

Tulare County Recirculated Draft Environmental Impact Report (SCH # 2006041162).

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Metcalf & Eddy, “Wastewater Engineering,” third edition.

Provost & Pritchard Consulting Group, *Matheny Tract Wastewater System Project Feasibility Report*, February 2016.

Chapter 3.19

Mandatory Findings of Significance

SUMMARY OF FINDINGS

Biological and cultural evaluations were conducted by RMA staff. As the Project (and all of its components) will be undertaken in existing disturbed areas and, based upon information/data received from the California Natural Diversity Database (CNDDB, see Appendix “B” of this DEIR); Southern San Valley Historical Resources Information Center, at California State University, Bakersfield (Center) and the California Native American Heritage Commission Sacred Lands File search (see Appendix “C” of this document) it is unlikely that these resources would be impacted. The results of these efforts are contained in technical studies in Appendices “B” and “C” of this EIR; respectively. The CNDDB indicates that there were no special-status species, wildlife, plant species; while the cultural study concluded there were no surface prehistoric features observed on the Project area. However, due to the Project’s geographic locations and existing conditions there is potential for special status biological species to occur on the site or to forage through the site between the time the biological review was conducted and when construction begins; and for sub-surface resources to be discovered during excavation-related activities while earth-moving or excavating activities are occurring at the construction phase of the Project. Also, the Project has the potential to expose sensitive receptors to construction-related noise exceeding acceptable levels set forth in the County General Plan. Mitigation Measures are recommended in Chapter 3 that would reduce all of these potential significant impacts in these Resource areas to less than significant. Therefore, based on the substantial and substantive analyses provided in this EIR, there is no evidence that making a Mandatory Findings of Significance for any resource impact would be supported by the evidence contained herein.

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.

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 effects associated with construction and operation of the proposed Project, including direct, indirect, and cumulative impacts related to the following environmental factors:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources

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- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

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.

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. Section 3.5 Cultural Resources of this EIR (which is supported by a Cultural Resources Technical Report) 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, 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.

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 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.”¹

Native Vegetation

The native vegetation of the Valley is predominately characterized by the purple needlegrass series, valley oak series, vernal pools and wetland communities, and blue oak series. Fauna associated with this section include mule deer (*Odocoileus hemionus*), black-tailed deer (*Odocoileus hemionus columbianus*), coyotes (*Canis latrans*), white-tailed jackrabbits (*Lepus townsendii*), kangaroo rats (*Dipodomys ingens*), kit fox (*Vulpes macrotis*), and muskrats (*Ondatra Zibethicus*). Birds include waterfowl, hawks, golden eagles (*Aquila chrysaetos*), owls, white-tailed kites (*Elanus leucurus*), herons, western meadowlark (*Sturnella neglecta*) and California quail (*Callipepla californica*).²

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.”³

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.

REGULATORY SETTING

Federal Agencies & Regulations

See Chapters 3.4 and 3.5 of this document for federal regulations related to biological and cultural resources; respectively.

State Agencies & Regulations

See Chapters 3.4 and 3.5 of this document for state regulations related to biological and cultural resources; respectively.

¹ 2030 Tulare County General Plan Update Background Report. Page 1-2.

² Ibid. 9-10.

³ Op. Cit. 9-56.

Local Policy & Regulations

See Chapters 3.4 and 3.5 of this document for local regulations related to biological and cultural resources; respectively.

IMPACT EVALUATION

- a) **Does the project have the potential to 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 a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

Project Impact Analysis:

Less Than Significant Impact With Mitigation

Chapter 3.4, Biological Resources, addresses potential impacts to biological resources. A biological review of the Project area (particularly adjacent to and along the pipeline route) was conducted by RMA staff and information obtained from the CNDDDB search. As noted earlier, the areas where the Project will occur are already utilized (e.g., roads and shoulders) and in a continuously disturbed state. There is no habitat whatsoever where any special status species may occur within or adjacent to the Project. The nearest waterways are two Tulare Irrigation District canals; Oakland Colony Ditch (which runs north to south along Canal Street in North Matheny Tract) and West Oakland Colony Canal (which is a diversion of Oakland Colony Ditch and runs along the norther boundary of South Matheny Tract then west of Road 96 (Pratt Avenue)); neither of these facilities are naturally occurring and both are primarily used to convey seasonal water flows for agricultural irrigation. As such, there is no habitat of value for common or special status species. The CNDDDB can be found in Appendix “B” of this DEIR. However, based on the location and geographic condition of the proposed Project site, there is potential for the animal species to occur or forage on the site that may be impacted by the proposed Project activities. Therefore, however unlikely an occurrence may occur, Mitigation Measures 3.4-1 through 3.4-7 contained in Chapter 3.4 would minimize potential impact to sensitive biological resources thereby limiting the potential impacts to Less Than Significant With Mitigation. As noted earlier, 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:

Based on the field survey and research, it can be reasonably concluded that the existing operations have rendered the Project site unsuitable for all but the most urban-tolerant species. Any native habitats once present on the site were completely transformed by the urban-type uses; however, at least two special-status species (San Joaquin kit fox and Swainson’s hawk) are known to forage and inhabit the Project vicinity. ***Less Than***

Significant with Mitigation Project-specific Impacts related to this Checklist Item would occur.

3.4 b) *No Impact*

Based upon the lack of riparian habitat, ***No Impacts*** related to this Checklist Item would 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 would occur.

3.4 d) *No Impact:*

The Project site does not serve as a fish or wildlife movement corridor. The existing canal banks could potentially serve as a movement corridor for kit fox; however no canals will be disturbed as the sewer collection system and pipelines will be located within existing rights-of-way. ***No Impact*** related to this Checklist Item would occur.

3.4 e) *No Impact:*

The proposed Project would not conflict with any policies or ordinances protecting biological resources. ***No Impact*** related to this Checklist Item would 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 Impact*** related to this Checklist Item would occur.

Cumulative Impact Analysis: *Less Than Significant Impact*

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 would be ***Less Than Significant***

Mitigation Measure(s): *See Mitigation Measures 3.4-1 through 3.4-7 outlined in Chapter 3.4.*

Conclusion: *Less Than Significant Impact With Mitigation*

Potential Project-specific and cumulative impacts to biological resources would be ***Less Than Significant With Mitigation.***

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, discusses impacts to historic or prehistoric resources in greater detail. One recorded resource was identified within ½ mile of the proposed Project site as a result of a California Historic Resources Information System (CHRIS) records search conducted by the Southern San Joaquin Valley Information Center (see Appendix “C”). Although no surface evidence exists, and there are no known recorded resources within the Project site according to CHRIS search, there is always potential for sub-surface evidence to be discovered during Project-related excavation for pipelines and appurtenant structures. Mitigation Measures are included to address the potential of cultural resources being unearthed as a result of Project-related ground excavation activities. These Mitigation Measures were added to address the possibility that important archaeological resources or human remains could be unearthed during Project-related ground excavation. Mitigation Measures 3.5-1, 3.5-2, and 3.5-3 are included in the unlikely event that archaeological resources, paleontological resources, or in the event that human remains are found/unearthed during Project-related ground excavation. Implementation of these Mitigation Measures as detailed in Chapter 3.5 would reduce any significant impacts to less than significant.

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 would be mitigated to ***Less Than Significant Project-specific and Cumulative Impacts With Mitigation***.

Mitigation Measure(s): ***See Mitigation Measures outlined in Chapter 3.5.***

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

Implementation of the above mitigation measures would reduce potential Project-specific and cumulative impacts to cultural resources to a level that is less than significant.

- 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)?**

Cumulative Analysis: ***See Chapter 4***

Cumulative impacts are address for each checklist item. In addition, cumulative impacts are summarized in Chapter 4. Cumulative impacts for biological and cultural resources are discussed within Chapters 3.4 and 3.5, respectively.

“CEQA Guidelines Section 15130(a) requires that an EIR discuss the cumulative impacts of a project when the project’s incremental effect is “cumulatively considerable,” meaning that the project’s incremental effects are considerable when viewed in connection with the effects of past, current, and probable future projects. A consideration of actions included as part of a cumulative impact scenario can vary by geographic extent, time frame, and scale. They are defined according to environmental resource issue and the specific significance level associated with potential impacts. CEQA Guidelines 15130(b) requires that discussions of cumulative impacts reflect the severity of the impacts and their likelihood of occurrence. The CEQA Guidelines note that the cumulative impacts discussion does not need to provide as much detail as is provided in the analysis of project-only impacts and should be guided by the standards of practicality and reasonableness and 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 impacts.”⁴

Conclusion for Cumulative Impacts to Biological Resources (Chapter 3.4):

Less Than Significant Impact With Mitigation

With implementation of Mitigation Measures 3.4-1 through 3.4-7, potential project-specific and cumulative impacts related to this Checklist Item would be reduced to ***Less Than Significant***.

Conclusion for Cumulative Impacts to Cultural Resources (Chapter 3.5):

Less Than Significant Impact With Mitigation

With implementation of Mitigation Measures 3.5-1 through 3.5-3, potential Project-specific and cumulative impacts related to this Checklist item would be reduced to ***Less Than Significant Impact With Mitigation***.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

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

There are ***No Environmental Adverse Effects*** from this Project on human beings. Rather, replacing the existing wastewater septic system would benefit the community as it would provide sanitary disposal of wastewater generated by the community thereby ensuring

⁴ Tulare County 2030 General Plan RDEIR, pages 5-3 to 5-4.

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reliable collection and treatment of wastewater and preserving water quality by avoiding discharging contaminated water into the natural environment.

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 traffic report, Tulare County 2030 General Plan, Tulare County General Plan Background Report and/or Tulare County 2030 General Plan EIR.

There are *No Environmental Adverse Effects* from this Project to human beings.

Mitigation Measures: *None Required*

Conclusion: *No Impact*

There would be *No Environmental Adverse Effects* which would cause substantial adverse effects to impacts to human beings either directly or indirectly.

DEFINITIONS/ACRONYMS

Definitions

See Chapters 3.4 and 3.5 of this document for definitions related to biological and cultural resources.

Acronyms

See Chapters 3.4 and 3.5 of this document for definitions related to biological and cultural resources.

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.”¹

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

¹ 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).²

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 applies 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; 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. The proposed Project location is outside incorporated areas and would be consistent with the goal of separating urban boundaries.³

² CEQA Guidelines, Section 15130

³ Tulare County Associated of Governments Blueprint 2050, Preferred Scenario (2009).

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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**.⁴

Table 4-1 Regional Population Projections and Planning Efforts			
Jurisdiction	General Plan Planning Timeframe	General Plan Buildout Population	Significant Environmental Impacts
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.

⁴ Tulare County General Plan 2030 Update Recirculated Draft EIR. Page 5-4 to 5-5.

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<p style="text-align: center;">Table 4-1 Regional Population Projections and Planning Efforts</p>			
Jurisdiction	General Plan Planning Timeframe	General Plan Buildout Population	Significant Environmental Impacts
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.
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.
<p><i>* 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.</i></p> <p><i>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.</i></p>			

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

- **Goshen:** Status – On-Going. On December 10, 2013, the Tulare County Board of Supervisors (BOS) approved the Planning Branch proposal to update the Goshen Community Plan. The Goshen Community Plan Update is being updated to implement the 2030 Tulare County General Plan (2012). The project Study Area Boundary will assess the potential project impacts from the proposed land use changes, for the areas north of Riggins Drive and Ave 320 to the North, Road 60 to the east, Avenue 304 to the South, and into the City of Visalia 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 will become consistent with the General Plan 2030 Update, and will include 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.

- **Yokohl Ranch**: Status – GPI allowed to proceed in February 2007. On September 13, 2005, the Tulare County Resource Management Agency received a request from the J.G. Boswell Company and the Eastlake Company, to initiate the formal process to amend the Tulare County General Plan, including the Foothill Growth Management Plan (FGMP), to change the land use designation for the 36,000 acre Yokohl Ranch property from 'Extensive Agriculture' to 'Planned Community Area'. According to the applicants, the proposed amendment will result in master planned communities that balance the needs for housing, neighborhood commercial uses, recreation, ranching operations and open space. As such, 40% (14,400 acres) of the ranch is proposed for development with 60% (21,600 acres) of the property to remain as untouched open space and ranchlands. The developed portions of the ranch will include the Village of Yokohl Ranch, an active adult community accessible to Yokohl Drive; and a Ranch Resort Lodge Enclave located in the northern reaches of the site, approximately four miles south of Lake Kaweah.
- **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. The project has been approved.
- **Earlimart**: Status – On-Going. The Earlimart Community Plan Update (General Plan Amendment No. 14-005) is being updated to implement the Tulare County General Plan 2030 Update (2012). Among the entitlements to be 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 has thoroughly analyzed the alternative forms of transportation, including transit, bicycle ways, and pedestrian circulation. The three (3) projects that are being 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 is proposing six (6) land use and zoning districts, 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 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.

- **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 Traver Community Plan Update is consistent with the recent approval of the General Plan 2030 Update, and will include the following primary goals and objectives.
- **Ducor:** Status – GPA approved. On November 3, 2015 the Tulare County Board of Supervisors (BOS) approved an update to the Ducor Community Plan. The Ducor Community Plan Update is consistent with the recent approval of the General Plan 2030 Update, and will include the following primary goals and objectives.
- **Terra Bella:** Status – GPA approved. On November 3, 2015 the Tulare County Board of Supervisors (BOS) approved an update to the Terra Bella Community Plan. The Terra Bella Community Plan Update is consistent with the recent approval of the General Plan 2030 Update, and will include the following primary goals and objectives.
- **Pixley:** Status – GPA approved. On June 17, 2015 the Tulare County Board of Supervisors (BOS) approved an update to the Pixley Community Plan. The Pixley Community Plan Update is consistent with the recent approval of the General Plan 2030 Update, and will include the following primary goals and objectives.
- **Tipton:** Status – GPA approved. On June 17, 2015 the Tulare County Board of Supervisors (BOS) approved the Tipton Community Plan. The Tipton Community Plan is consistent with the recent approval of the General Plan 2030 Update, and will include the following primary goals and objectives.
- **Strathmore:** 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 Update is consistent with the recent approval of the General Plan 2030 Update, and will include the following primary goals and objectives.

In addition to the Major Projects outlined in the Tulare County General Plan Update 2030 Recirculated Draft EIR, the approved projects listed as follows may produce cumulative impacts:

- **Pena's:** 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:** 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:** 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:** 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:** 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:** 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:** This is a Project amendment to 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 acres. 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.'
- **Papich:** 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** –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”⁵

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.

SUMMARY OF CUMULATIVE IMPACTS

In this summary section, mitigated impacts and immitigable impacts will be discussed. Checklist Item criteria that would result in No Impacts or Less Than Significant Impacts 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**.

Table 4-2		
Checklist Items with Less Than Significant Impacts with Mitigation		
Impact Section	Checklist Item No.	Checklist Criteria
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?
Cultural Resources	3.5 a)	Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?
Cultural Resources	3.5 b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?
Cultural Resources	3.5 c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

⁵ Tulare County Zoning Ordinance. Page 13.

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Table 4-2 Checklist Items with Less Than Significant Impacts with Mitigation		
Impact Section	Checklist Item No.	Checklist Criteria
Cultural Resources	3.5 d)	Disturb any human remains, including those interred outside of formal cemeteries?
Transportation & Traffic	3.16 e)	Result in inadequate emergency access"
Tribal Cultural Resources	3.16 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	3.16 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 8 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**.

Table 4-3 Checklist Items with Less Than Significant Impacts		
Impact Section	Checklist Item No.	Checklist Criteria
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 the site and its surroundings
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?
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?

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Table 4-3 Checklist Items with Less Than Significant Impacts		
Impact Section	Checklist Item No.	Checklist Criteria
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?
Geology & Soils	3.6 a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> 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. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?
Geology & Soils	3.6 b)	Result in substantial soil erosion or the loss of topsoil?
Geology & Soils	3.6 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?
Geology & Soils	3.6 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?
Greenhouse Gas Emissions	3.7 a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
Hazards & Hazardous Materials	3.8 a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
Hazards & Hazardous Materials	3.8 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?
Hydrology & Water Quality	3.9 a)	Violate any water quality standards or waste discharge requirements?

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<p style="text-align: center;">Table 4-3 Checklist Items with Less Than Significant Impacts</p>		
Impact Section	Checklist Item No.	Checklist Criteria
Hydrology & Water Quality	3.9 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 h)	Place within a 100-year flood hazard structures which will impede or redirect flood flows.
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?
Noise	3.12 b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
Noise	3.12 c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
Noise	3.12 d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
Population & Housing	3.13 a)	Induce substantial 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)?
Public Services	3.14 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?
Public Services	3.14 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: Police protection?

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Table 4-3 Checklist Items with Less Than Significant Impacts		
Impact Section	Checklist Item No.	Checklist Criteria
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?
Utilities	3.17 a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
Utilities	3.17 b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
Utilities	3.17 c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
Utilities	3.17 d)	Have sufficient water supplies available to serve the project been identified from existing entitlements and resources, or are new or expanded entitlements needed?
Utilities	3.17 e)	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?
Utilities	3.17 f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

No Impact

Checklist Items with No Impacts are listed in **Table 4-4**.

Table 4-4 Checklist Items with No Impacts		
Impact Section	Checklist Item No.	Checklist Criteria
Aesthetics	3.1 a)	Have a substantial adverse effect on a scenic vista?
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?

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Table 4-4
Checklist Items with No Impacts

Impact Section	Checklist Item No.	Checklist Criteria
Agricultural Lands & Forestry	3.2 b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?
Agricultural Lands & Forestry	3.2 c)	Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code § 12220(q), timberland (as defined by Public Resources Code § 4526), or timberland zoned Timberland Production (as defined by Government Code § 51104(g))?
Agricultural Lands & Forestry	3.2 d)	Result in the loss of forest land or conversion of forest land to non-forest use?
Agricultural Lands & Forestry	3.2 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 agricultural use or conversion of forest land to non-forest use?
Biological Resources	3.4 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 or US Fish and Wildlife Service?
Biological Resources	3.4 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?
Biological Resources	3.4 e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
Biological Resources	3.4 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?
Geology & Soils	3.6 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?
Greenhouse Gases	3.7 b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?
Hazards & Hazardous Materials	3.8 c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

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<p style="text-align: center;">Table 4-4 Checklist Items with No Impacts</p>		
Impact Section	Checklist Item No.	Checklist Criteria
Hazards & Hazardous Materials	3.8 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?
Hazards & Hazardous Materials	3.8 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 for people residing or working in the project area?
Hazards & Hazardous Materials	3.8 f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
Hazards & Hazardous Materials	3.8 g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
Hazards & Hazardous Materials	3.8 i)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?
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, in a manner which would result in substantial erosion or siltation on- or off-site?
Hydrology & Water Quality	3.9 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?
Hydrology & Water Quality	3.9 e)	Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
Hydrology & Water Quality	3.9 f)	Otherwise substantially degrade water quality?
Hydrology & Water Quality	3.9 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?
Hydrology & Water Quality	3.9 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?
Hydrology & Water Quality	3.9 j)	Inundation by seiche, tsunami, or mudflow?
Land Use & Planning	3.10 a)	Physically divide an established community?

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Table 4-4 Checklist Items with No Impacts		
Impact Section	Checklist Item No.	Checklist Criteria
Land Use & Planning	3.10 b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?
Land Use & Planning	3.10 c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?
Mineral Resources	3.11 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?
Mineral Resources	3.11 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?
Noise	3.12 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 expose people residing or working in the project area to excessive noise levels?
Noise	3.12 f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?
Land Use & Planning	3.13 a)	Physically divide an established community?
Land Use & Planning	3.13 b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?
Land Use & Planning	3.13 c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?
Population & Housing	3.13 b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
Population & Housing	3.13 c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?
Public Services	3.14 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: Schools?

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Table 4-4 Checklist Items with No Impacts		
Impact Section	Checklist Item No.	Checklist Criteria
Public Services	3.14 a)	<p>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:</p> <p>Parks?</p>
Public Services	3.14 a)	<p>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:</p> <p>Other Public Facilities?</p>
Recreation	3.15 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?
Recreation	3.15 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?
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?
Transportation	3.16 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?
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 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?

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Table 4-4 Checklist Items with No Impacts		
Impact Section	Checklist Item No.	Checklist Criteria
Utilities	3.17 g)	Comply with federal, state, and local statutes and regulations related to solid waste?

REFERENCES

CEQA Guidelines, Sections 15130 (e) and 15355

Tulare County General Plan 2030 Update Recirculated Draft Environmental Impact Report (RDEIR)

Tulare County Associated of Governments Blueprint 2050, Preferred Scenario (2009)

Chapter 5

Alternatives

INTRODUCTION

The following Alternatives analysis is based on the information contained in the “Project Feasibility Report - Matheny Tract Wastewater System Tulare County, California, 2016” (Feasibility Report or Report) which is included as Appendix “D” of this DEIR. The Report also provides general design criteria for facilities in “Table 6-1: Collection System Design Criteria”¹.

CEQA Guidelines Section 15126.6 requires that a reasonable range of alternatives to the Preferred/Proposed Project be discussed in the EIR. As noted earlier, this document has been prepared using the Preferred Alternative as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”. 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

¹ *Project Feasibility Report Matheny Tract Wastewater System, Tulare County, California, 2016*. Page 38. Prepared by Provost & Pritchard, February 2016; (and included as Appendix “D” of this DEIR).

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.”²

FACTORS CONSIDERED IN ANALYSIS OF ALTERNATIVES

In this Alternatives analysis the following evaluation criteria will be used:

Evaluation Criteria 1: Project Specific Elements

The primary Project-specific elements include:

- Collect approximately 110,000 gallons per day in domestic wastewater and transport it to the City of Tulare wastewater treatment plant for treatment and disposal;

² CEQA Guidelines, Section 15021

- Reduce and/or remove the threat of potential groundwater contamination caused by seepage of wastewater from failing and improperly operating septic systems into the underground water supply in the Community and surrounding areas;
- Design and construct a wastewater system capable of adequately servicing the existing land uses and planned growth within the Matheny Tract Planning area; and
- Operate and maintain a wastewater system as affordably and cost effectively as possible for the users of the system in Matheny Tract.
- Enhance Matheny Tract residents' quality of life.

Evaluation Criteria 2: Project Objectives

1. Construct a system capable of accessing the City of Tulare wastewater treatment facility which would provide adequate on-site wastewater removal and treatment services for Matheny Tract; (provide an average daily flow of 110,000 mgd to meet the wastewater disposal requirements of existing residents, local businesses.);
2. Eventual abandonment of the existing individual residential on-site septic tank/leach line systems located within Matheny Tract;
3. Provide a system that has the least potential to result in environmental impacts and would provide an environmental benefit by eliminating wastewater discharge from on-site system tanks into the ground;
4. Avoid construction of a stand-alone wastewater treatment facility (including percolation ponds) in Matheny Tract. This would be the most expensive Alternative to the Project and would likely result in an economic and unaffordable hardship to Matheny Tract's residents.
5. Treat collected wastewater so as to remove constituents, such as BOD, suspended solids, nitrogen, and waterborne bacteria and viruses, to a greater extent, thereby improving subsurface water quality in the receiving groundwater basin relative to current environmental conditions;
6. Provide the most cost-effective, safe, and reliable means to collect and treat wastewater to Title 22 standards; and
7. Implement an as affordable fees schedule to efficiently and effectively maintain and operate the wastewater system.

Evaluation Criteria 3: Minimize Construction and Operations & Maintenance Costs

Although there may be a diversity of theoretical alternatives, there are only a few alternatives that could potentially be feasibly implemented due to cost prohibitive expenses involved in some alternatives. Considerable increases in costs can result in infeasibility of a project alternative.

The Project involves the construction and operation of a wastewater system for Matheny Tract that is recommended by the *Project Feasibility Report - Matheny Tract Wastewater System*,

Tulare County, California, 2016 (Feasibility Report or Report) to be the most financially and operationally feasible for the community (including both physical and governance operation and maintenance). Operational efficiency is a major concern in the long-term viability of the facility. Operational efficiency affects both operational costs and operational effectiveness through the minimization of new infrastructure and capital costs needed. Irrespective of the physical operational alternative chosen, the governance operation alternatives (Community Service District, County Sanitation District, County Service Area or City of Tulare Zone Of Benefit, Public Utility District, Pratt Mutual Water Company, or extra-territorial agreement with the City of Tulare, etc.) would have no direct or indirect effects on the environment.

Evaluation Criteria 4: Lessen (Reduce) Significant Impacts

According to CEQA, a valid Project alternative should be capable of meeting most of the Project objectives *and* reducing potential significant impacts associated with the Project. Reasonable alternatives are those that may reduce the extent and magnitude of Project, site, and cumulative 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 the environment in general.)

Evaluation Criteria 5: Physical Feasibility (Land Size and Configuration Constraints)

Physical feasibility is required because if a 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

Alternative 1: On-site Systems with Implementation of a Septic Tank Maintenance District

Description: “This alternative would entail removal and replacement or reconstruction of the existing septic systems on each individual property throughout the community. In order for this option to be feasible, the new septic systems would have to reduce nitrate levels in the wastewater to below 10 mg/l to avoid degrading the underlying groundwater. Such a level of nitrate reduction is difficult to achieve on a reliable basis in a non-mechanized treatment process. Installation of new septic treatment systems would be expensive to accomplish in an existing developed community where locations for the new septic systems and leach fields will be limited and difficult to find.

Construction and maintenance of the new septic systems and leach fields would be carried out by the Septic Tank Maintenance District, which would be formed prior to commencement of project

construction. Easements for installation and maintenance for each system would be obtained from each affected property owner. Once construction is completed, the Septic Tank Maintenance District would continue routine maintenance of the septic systems. A monthly rate would be established and each property owner would pay his or her pro-rata share of the cost of such maintenance on an ongoing basis.”³

“The initial capital costs of this alternative include abandoning all existing septic systems and installing new septic systems throughout the community; the Operations & Maintenance (O&M) costs associated with this project consists of triennial septic tank pumping, annual inspections and general maintenance. An Engineer’s Opinion of Probable Construction Cost has been prepared and is included in Appendix H [of the Feasibility Report]. The costs associated with this alternative are briefly summarized in Table 5-3 [of the Feasibility Report, **Table 5.1** in this DEIR].

Table 5-1: Alternative No. 1 Total Cost Estimate	
Item Description	Subtotal
System Improvements	\$14,915,600
Contingency	\$2,983,120
Engineering	\$1,491,560
Total Project Costs	\$19,390,280
Annual Operations & Maintenance Costs	\$263,300
Cost per Month per Connection	\$74
Present Worth Cost	\$3,917,239
Total Project Costs + Present Worth Costs	\$23,307,519

The total project costs equate to a monthly cost of \$74 per property, which is approximately 3.1% of the community’s MHI. A commonly referenced affordability level for sewer service as being is 1.5% of the community MHI; the monthly cost associated with this alternative would exceed the affordability level.”⁴

“The advantages and disadvantages of this alternative are presented in Table 5-4 [in the Feasibility Report; **Table 5-2** in this DEIR].”⁵

Also, as indicated in the Feasibility Report; “This Alternative would not have an effect on climate change and would, at most, be minimally affected by climate change. If a drought persists in the area and water use is curtailed, there could potentially be a lower liquid to sludge ratio in the septic systems, which may lead to the need for more frequent pump-outs or maintenance costs.”⁶

³ Ibid. 23-24.

⁴ Op. Cit. 24.

⁵ Op. Cit. 25.

⁶ Op. Cit.

Table 5-2: Alternative No. 1 Advantages and Disadvantages	
Advantages	Disadvantages
Maintains local control of wastewater treatment.	High capital and O&M costs.
	Difficulty denitrifying wastewater consistently.
	Requires creation of new Special District.
	Assessment of a fee on properties within the community.
	Approximately 15% of lots within the community are below the 12,500 sf minimum lot size for individual septic systems. Implementing this alternative would require a variance to Tulare County's minimum lot size requirements. It is not clear how the County would make the required findings of necessity in order to approve the variance.
	Many lots within the community have limited space for a new septic system due to existing improvements (multiple buildings/dwellings). Tulare County typically requires an area set aside to provide for replacement in the event that the septic system fails. This requirement could be possibly waived for existing housing.

Alternative 2: Gravity Collection System and Consolidation with the City of Tulare (Preferred Alternative)

Description: “This alternative consists of constructing a new gravity wastewater collection system, likely with at least one lift station, and connection to the City of Tulare’s wastewater collection system. New sewer services and onsite plumbing would be required to connect each property to the new wastewater collection system and the existing septic systems would require proper abandonment.”⁷

As indicated in the Feasibility Report, Alternative 2 contains many components which would need to be accomplished as part of implementation of this Alternative. “The components of this project alternative would entail the following items:

- Construction of
 - new gravity wastewater collection system throughout the Matheny Tract
 - one or more lift stations, including new points of electric service
 - sewer laterals from each property, with connection to each existing residence
- Connection to the City of Tulare’s existing 27-inch sewer main at Paige Avenue [Avenue 216] and K Street

⁷ Op. Cit. 25-26.

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- Construction of 2,900 feet of 12-inch sewer main in Pratt Street [Road 96] from Matheny Tract to Paige Avenue [Avenue 216].
- In-place abandonment of existing septic systems and leach fields
- Conduct a Proposition 218 Election
- New utility account setup for all residents with the City of Tulare
- Payment of capacity fees to the City for each property
- Modifications to the City's existing Sewer System Management Plan (SSMP)
- Update the City's Report of Waste Discharge (RWD)"⁸

"The City of Tulare has indicated the existing 27-inch sewer trunk main in Paige Avenue [Avenue 216] at Pratt Street is at 70 percent capacity and would be able to accommodate an additional 0.36 MGD. As discussed in Section 5.1, when utilizing the City's Peaking Factor of 2.1, the capacity needed for the project is 0.27 MGD; therefore the new improvements could make use of the existing 27- inch sewer main.

A preliminary layout of the Matheny Tract collection system is shown in Appendix I [of the Feasibility Report]. The layout includes 8-inch PVC sewer mains within the community and 8- to 12-inch sewer mains in Pratt Street [Road 96], flowing north to the intersection of Paige Avenue [Avenue 216] and Pratt Street [Road 96]. Four-inch sewer service house branches would be provided to each residential property and six-inch sewer services would be provided to the churches and commercial establishments."⁹

In addition, the Feasibility Report also noted the "Willingness of Neighboring System" as; "The City of Tulare was contacted to determine a willingness to be a participant in this study to identify alternative; the City indicated it was willing to be identified in the Report and would cooperate with requests for information to facilitate the analysis of the alternative. Willingness to be identified in the Report does not indicate willingness to approve the alternative, if it is identified as the preferred alternative. Early discussions with the City of Tulare have indicated the City is reluctant to extend wastewater service into the community as the City feels doing so would not be consistent with its General Plan or the City's growth objectives. Additional discussions and review of the alternative analysis by the City, as well as positive action by the City Council to approve the consolidation, would be required prior to acceptance of the alternative."¹⁰

As part of its analysis, the Feasibility Report provided information regarding the City of Tulare's WWTF to accommodate the added wastewater flows from Matheny Tract. The Report noted in its discussion of "Capacity of Neighboring System that; "The City of Tulare's WWTP has two components, a Domestic Plant and an Industrial Plant. The Domestic Plant has a permitted capacity of 6.0 MGD, with a plan to increase the capacity to 8 MGD in the future. Of the current 6.0 MGD capacity, existing development within the City uses 4.9 MGD and approved future development will utilize 0.2 MGD, for a total committed capacity of 5.1 MGD, some 85% of the

⁸ Op. Cit. 26.

⁹ Op. Cit.

¹⁰ Op. Cit. 26-27.

total permitted capacity. Of the remaining 0.9 MGD capacity, the Matheny Tract use would be 0.13 MGD, bringing the plant to 87% of available capacity. The Industrial Plant has a permitted capacity of 12.0 MGD with a total committed capacity of 7.6 MGD, approximately 65% of the permitted capacity.

The RWQCB begins to look for applications for plant and permit expansion when ADWF exceeds 80% of available capacity. The City filed a Report of Waste Discharge in support of phased increases in discharge flow including a future increase to 8.0 MGD; in the meantime, the City intends to postpone capital expenditures for the Domestic Plant upgrade by using the available treatment capacity of the Industrial Plan to treat the excess Domestic Plant influent.

The Matheny Tract would not be the trigger for the expansion of the domestic WWTP, since it is already in the window where planning for expansion must begin. However, the community should be required to pay its pro-rata share of the cost of the needed improvements at the WWTP. The project would be required to compensate the City for the capacity used by paying capacity and possibly Development Impact fees in an amount to be determined. An estimation of \$2,500 per equivalent dwelling unit has been included based on experience with similar, nearby communities, and can only be expected to rise with additional funding obligations.”¹¹

Similar to other Alternatives costs, the Feasibility Report notes the estimated costs if Alternative 2 is implemented. “The initial capital costs of this alternative include constructing a wastewater collection system, abandonment of the existing septic systems, permitting fees and connection/ Development Impact fees. An Engineer’s Opinion of Probable Construction Cost has been prepared and is included in Appendix J. The capital, operation and maintenance costs are briefly summarized in Table 5-5 [in the Feasibility Report, **Table 5-3** in this DEIR].”¹²

Table 5-3: Alternative No. 2 Total Cost Estimate	
Item Description	Subtotal
Wastewater Collection System	\$5,539,001
Connection to the City of Tulare	\$2,010,275
Contingency	\$1,509,855
Engineering	\$754,928
Total Project Costs	\$9,814,059
Annual Operations & Maintenance Costs	\$150,192
Cost per Month per Connection, minimum ^[1]	\$42
Present Worth Cost	\$2,234,478
Total Project Costs + Present Worth Costs	\$12,048,537
<i>Notes:</i> <i>[1] The cost per connection is the current sewer rate charge by the City of Tulare, not a calculated rate. This rate may be higher at time of project implementation due to escalation of sewer rate or to additional fees assessed to Matheny Tract if a loan is required to construct the improvements.</i>	

¹¹ Op. Cit. 27.

¹² Op. Cit. 27-28.

“The ongoing responsibility for Operation & Maintenance (O&M) costs and Replacement costs of the project would be borne by the City; the funding for those expenses would be built into the sewer rates paid by the residents of the Matheny Tract.

The City’s current sewer rate is \$42 per account on a monthly basis; this would be the minimum monthly cost per connection and could be higher if special fees were assessed for the Matheny Tract customers. Possible special fees could include Out of Service Area fees or loan repayment costs (see Section 5.6.1 for possible loan repayment scenarios). The current sewer rate is approximately 1.75% of the community’s MHI. While this exceeds the lowest affordability level for sewer service (1.5%), it is within an acceptable range (1.5%-2.5%); the monthly rate would be considered appropriate for the community and would not be considered overly burdensome.”¹³

“The advantages and disadvantages of Alternative 2 are presented in Table 5-6 [in the Feasibility Report, **Table 5-4** in this DEIR].”

Table 5-4: Alternative No. 2 Advantages and Disadvantages	
Advantages	Disadvantages
Wastewater collection and treatment becomes a City function.	The local community may have little input into the ongoing operation of the system and perceive loss of control.
The costs to own and operate an individual wastewater treatment facility are avoided; the community would benefit from certain economies of larger-scale operation.	Reluctance of the City to provide wastewater service in this area.
The City receives additional operating revenues to operate and maintain their WWTP.	
Lowest monthly operations costs of the alternatives considered.	
Capital expenditure may be eligible for grant funding.	
New special district formation is avoided.	

Lastly, as noted in the Feasibility Report; “This Alternative would have an effect on climate change due to increased electricity consumption by the WWTP. This impact would be minimized by the use of high-efficiency electrical equipment and control strategies to minimize electricity use. Additionally, if a drought persists in the area and water use is curtailed, there could potentially be a lower liquid-to-sludge ratio in the wastewater treatment system, which could lead to operational adjustments at the City’s WWTP; however, the City is already contending with this situation with its existing users due to the current drought.”¹⁴

¹³ Op. Cit. 28.

¹⁴ Op. Cit. 29.

Alternative 3: Gravity Collection System with Conventional Wastewater System (that is, a new collection system and wastewater treatment facility for Matheny Tract).

Description: As indicated in the Feasibility Study; ‘This option would be similar to Alternative 2 in that a new collection system would be constructed to provide wastewater collection. Instead of connecting to the City of Tulare, a new wastewater treatment plant, designed to produce denitrified secondary effluent, would be constructed adjacent to the community. After treatment, the effluent would be discharged to evaporation/percolation ponds located at the treatment plant site.’¹⁵ The plant would consist of the following components:

Influent Lift Station and Headworks: In addition to lift stations located in the collection system, the plant will require an influent lift station located on the plant site. This lift station would discharge through an influent flow meter to an at-grade inclined auger, auto-cleaning fine screen to remove large solids. Grit removal would also be provided to avoid grit buildup in the downstream treatment processes.

Biological Process for treating wastewater.

Sludge Handling: Waste activated sludge (WAS) from the treatment process would be dried on sludge drying beds. The dried product could be disposed of at a bioenergy facility, composting facility or at a landfill.

Effluent Disposal: Effluent would be applied to evaporation/percolation ponds located adjacent to the WWTP.

Other Facilities and Equipment: Water for plant operation would be provided by the community’s potable water system. Storm drainage runoff would be retained in an onsite retention pond. An emergency generator would be provided in the event of power failure. An office/lab building would be provided.

Disinfection of the effluent is not required by the RWQCB for plants of this type when disposal is to evaporation and percolation.¹⁶

“The initial capital costs of this alternative include construction of a wastewater collection system, abandonment of the existing septic systems, construction of a new wastewater treatment facility and evaporation/percolation ponds for effluent disposal, permitting fees and connection fees. An Engineer’s Opinion of Probable Construction Cost has been prepared and is included in Appendix L [of the Feasibility Report]. The costs are briefly summarized in Table 5-7 [in the Feasibility Report, **Table 5-5** in this DEIR].”¹⁷

“The ongoing Operation & Maintenance (O&M) costs and Replacement costs of the project would be borne by the community. A public entity would likely need to take over operation and management of the collection and treatment facilities. This entity could be Tulare County through a Zone of Benefit or a special district formed for this purpose. Actual operation could be by employees of the operating entity, or operations could be contracted out to a private firm specializing in such services. A detailed estimate of O&M costs is included in the Engineer’s Opinion of Probable Construction Cost for this alternative in Appendix L [in the Feasibility

¹⁵ Op. Cit. 29.

¹⁶ Op. Cit. 29-30.

¹⁷ Op. Cit. 30

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Report]. The residential sewer rate calculated above is \$136 per month for residential users, which is approximately 5.4% of the community's MHI; this rate would far exceed the 1.5% affordability level for sewer service.”¹⁸

Table 5-5: Alternative No. 3 Total Cost Estimate	
Item Description	Subtotal
Wastewater Collection System	\$5,539,001
Wastewater Treatment Plant	\$3,114,480
Contingency	\$1,730,696
Engineering	\$1,298,022
Total Project Costs	\$11,682,199
Annual Operations & Maintenance Costs	\$487,431
Cost per Month per Connection	\$136
Present Worth Cost	\$7,251,735
Total Project Costs + Present Worth Costs	\$18,933,934

As noted in the Feasibility Report; “The advantages and disadvantages of this alternative are presented in Table 5-8 [in the Feasibility Report, **Table 5-6** in this DEIR].”¹⁹

Table 5-6: Alternative No. 3 Advantages and Disadvantages	
Advantages	Disadvantages
Maintains local control of wastewater treatment.	Relatively high capital expenditures required.
Capital expenditures eligible for grant funding	The costs to own and operate a community wastewater treatment facility are borne solely by the community, no economies of scale.
	Special district formation is required for funding and permitting.
	Does not conform to the RWQCB's policy opposing the proliferation of small wastewater treatment plants when consolidation with another agency is a viable option.

Also, as indicated in the Feasibility Report; “This Alternative would have an effect on climate change due to increased electricity consumption by the WWTP. This impact would be minimized by the use of high efficiency electrical equipment and control strategies to minimize electricity use. Additionally, if a drought persists in the area and water use is curtailed, there could potentially be a lower liquid to sludge ratio in the wastewater treatment system.”²⁰

¹⁸ Op. Cit. 31.

¹⁹ Op. Cit. 31-32.

²⁰ Op. Cit. 32.

Alternative 4: No Project

Description: “This alternative would entail no improvements to the community; the existing septic systems would remain unimproved. As existing septic systems fail, they would either remain in use after failure or be replaced with similar systems, which would continue to impact the groundwater quality in the area.”²¹

As indicated in the Feasibility Report; “There are no capital or periodic O&M or replacement costs associated with this alternative. However, individual homeowners will be faced with replacing existing septic systems at some point, at a cost of \$6,000 to \$10,000 per household. Additionally, existing septic systems should be pumped and inspected on average every three years at an estimated cost of \$300 per incident. However, the equivalent monthly cost of these expenses would be significantly less than any of the other alternatives.”²²

“The advantages and disadvantages of this alternative are presented in Table 5-9 [in the Feasibility Report, **Table 5-7** in this DEIR].”²³

Table 5-7: Alternative No. 4 Advantages and Disadvantages	
Advantages	Disadvantages
No immediate capital expenditure required.	Not a solution to the wastewater problems within the community.
	Existing septic systems within the community will continue to degrade and fail, and the cost of the replacement would be entirely borne by the homeowner.
	As septic systems continue to fail, potential public health effects may increase.
	Degradation of the shallow groundwater table will continue.

The Feasibility Report provides a comparison of alternatives. However, Alternative 4 (No Project) is not considered a viable Alternative as it does not accomplish the main goal of the project, which is to provide a sustainable solution for the wastewater disposal in the community. Factors consider in the comparisons of Alternatives 1, 2, and 3 are limited to costs analysis, construction challenges, and critical concerns. Environmental considerations for CEQA purposes are discussed in the next section of this chapter.

In summary, Alternative 2 is the lowest cost alternative, has the least anticipated construction challenges, and has the fewest critical issues of the Alternatives. Regarding costs, a comparison of Alternatives is summarized in Table 5-14 in the Feasibility Report (see **Table 5-8** in this DEIR). As indicated in the Report; “Alternative 2 is the least expensive option as well as the

²¹ Op. Cit. 32.

²² Op. Cit.

²³ Op. Cit.

alternative with the least number of construction challenges and critical concerns. It is also the most preferred alternative by the County for several reasons:

- Alternative 2 capitalizes on the economies of scale associated with consolidation of two communities, particularly a very small community and a larger agency;
- Alternative 2 is the most viable from technical, fiscal, managerial and regulatory perspectives;
- Protection of the groundwater supplies is paramount, continued operation of septic systems particularly at the density in Matheny Tract, as discussed in Alternative 1, would continue to endanger groundwater quality; and
- Establishing a new entity to govern a new wastewater system would be required by the Alternative 3 including agency formation, LAFCo approval;

Assuming discussions with the City of Tulare progress positively, Alternative 2 is identified as the preferred alternative. It is noted that lack of concurrence from the City is a fatal flaw to Alternative 2. Alternative 1, Onsite Septic Systems would be the next preferred alternative; however, for the purposes of this report, Alternative 2 is presented as the preferred alternative.”²⁴

Table 5-8: Summary of Comparisons			
Comparison Category	Alternative Rating		
	Alternative 1	Alternative 2	Alternative 3
Present Worth Cost	\$23,307,519	\$12,048,537	\$18,933,934
Present Cost Ranking	3	1	2
Monthly User Fees	2	1	3
Construction Challenges	2	1	2
Critical Concerns	1	2	3
Total Scoring	8	5	10

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, 3 and 4 against Alternative 2 (the Preferred Alternative) in order to identify the environmentally superior alternative. The relative environmental impacts associated with each of the Alternatives, as compared to the Preferred Alternative, are summarized in **Table 5-9**. A matrix comparing the Evaluation Criteria as they pertain to each Alternative is provided in **Table 5-10**.

²⁴ Op. Cit. 35-36.

Alternative 1 - On-site Systems with Implementation of a Septic Tank Maintenance District. As indicated in the Feasibility Report, There are no known significant environmental impacts associated with the construction of the treatment facilities. Construction problems may include locating the new septic tanks within each property in Matheny Tract that meets access and visual sight requirements. The unknown location and condition of existing septic tanks dictates the assumption of needing new septic tanks. Formation of a Septic Tank Maintenance District would provide for some mitigation of failing septic tank systems through pumping and rehabilitation if appropriate. Advantages to this process include the simplicity of the treatment process. Disadvantages include the requirement for septic tanks within each property served (with an access easement and visual sight lines to the electrical control panel), and the need to add an anoxic tank to achieve denitrification. As noted earlier, the reliance upon on-site systems in an area with soils that are not favorable to on-site systems and small residential lots has the potential to result in adverse environmental impacts. As such, Alternative 1 is not superior to the Preferred Alternative and is not considered a viable Alternative.

Alternative 3: – Gravity Collection System with conventional treatment (that is, a new collection system and wastewater treatment facility in Matheny Tract). Construction of a New Matheny Tract Wastewater Treatment Facility could potentially meet all of the Project objectives, but would not attain all the Alternatives Evaluation Criteria, in particular, providing a system as affordable as possible for the community with the least environmental impact. As a low-income community, the residents would not likely have the resources to afford paying through user fees for the amortized costs of a constructing a complete new wastewater treatment plant infrastructure. Further, this Alternative would result in more significant impacts to air quality, agricultural, biological, cultural, greenhouse gas emissions, and noise resources compared to the Preferred Alternative resulting from development of an additional acreage (+/- 20.0 acres) and the establishment of support staff (for example, a business office to support operations and maintenance). Therefore, this Alternative would not meet the criteria as the Environmentally Superior Alternative.

Alternative 4 – No Project Alternative. The No Project Alternative would avoid all potential construction- and operations-related impacts related to agricultural land conversion, air quality, greenhouse gas emissions, noise and traffic resulting from the Preferred Alternative and each of the other Alternatives identified earlier. However, the No Project Alternative would not meet the Evaluation Criteria of eliminating the potentially significant public health-related impacts the community is currently experiencing. 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. The No Project Alternative, while avoiding most impacts related to the physical environment resulting from the Project, would not avoid, resolve, or remedy the existing or future potential impacts related to human health from unsanitary conditions and/or water quality contamination by the continued use of individual septic tanks and leach fields. Therefore, this Alternative would not meet the criteria as the Environmentally Superior Alternative.

Environmental impacts associated with each of the alternatives presented compared to the Preferred Alternative are shown in **Table 5-9**.

Table 5-9 Impacts of Alternatives Compared to Preferred Alternative Connection to City of Tulare WWTP			
Impact Topic	Alternative 1 Septic Tank Maintenance District	Alternative 3 New Sewer Collection System and WWTP	Alternative 4 No Project
Aesthetics	less	similar-greater	less
Agriculture	less	greater	less
Air Quality	less	greater	less
Biology	less	similar-greater	less
Cultural	unknown	greater	less
Geology/Soils	greater	similar	less
Greenhouse Gases	similar	greater	less
Hazards & Hazardous Materials	less	similar	less
Hydrology/Water Quality	greater	similar	greater
Land Use	less	greater	less
Mineral Resources	less	similar	less
Noise	less	greater	less
Population/Housing	less	similar	less
Public Services	similar	similar	less
Recreation	similar	similar	similar
Transportation and Traffic	similar	greater	less
Utilities	similar	similar	less
Mandatory Findings	similar	greater	less

Table 5-10 is a matrix comparing each Alternative's and the Preferred Alternative's abilities to achieve the Evaluation Criteria.

Table 5-10 Comparison of Alternatives Attaining Evaluation Criteria				
Evaluation Criteria	Alternative 2 Septic Tank Maintenance District	Alternative 1 Preferred	Alternative 3 New Collection System and WWTP	Alternative 4 No Project
Project Specific Elements	No	Yes	Yes	No
Meet all Project Objectives	No	Yes	Yes	No
O & M and Cost Efficiency	Maybe	Yes	No	Yes & No
Reduce Significant Impacts	Yes & No	Yes	No	Yes & No
Physical Feasibility	Yes	Yes	Yes	Yes

As discussed in Alternatives 1 through 4, each of the Alternatives could result in more adverse environmental impacts as specified on the CEQA resources checklist. Therefore, the proposed Project is the environmentally superior alternative.

In summary, based upon the above analyses, Alternative 2 - Preferred Alternative is the Environmentally Superior Alternative and would result in less, or the avoidance of, significant environmental impacts compared to the other identified Alternatives and would satisfy all the Evaluation Criteria noted earlier.

REFERENCES

See References cited in Chapter 3-2 Air Quality

See References cited in Chapter 3-4 Biology

See References cited in Chapter 3-5 Cultural

See References cited in Chapter 3-7 Greenhouse Gases

See References cited in Chapter 3-12 Noise

Provost & Pritchard Consulting Group, *Project Feasibility Report - Matheny Tract Wastewater System, Tulare County, California, February 2016*. (Included as Appendix “D” of this DEIR)

Chapter 6

Economic, Social, and Growth-Inducing Effects

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. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 2, City of Tulare option) as the proposed Project. As such, the following discussion refers to the “Preferred/Proposed Project” as “the Project”.

Table 6-1 Summary of Economic, Social and Growth Inducing Impacts		
Topic	Summary of Impact	CEQA Requirement
Economic Impact	The Preferred Alternative may result in adverse financial impacts to the community. The Project may result in off-setting benefits for improved quality of life related to public health and property values to the community and immediate vicinity.	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.”
Social Impact	The Preferred Alternative would not result in disproportionate environmental effects on minority populations, low income populations, or Native Americans. The Preferred/Proposed Project does not pose any adverse environmental justice issues that would require mitigation. The project would improve the quality of life for the community.	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.”
Growth Inducing Effect	The Preferred Alternative would not result in significant growth inducing impacts. The Project is unable to accommodate future growth due to limitations in funding. Consequently the Project would not result in new housing. Growth inducing impacts would 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 Preferred Alternative (the 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

“Tulare County has one of the highest rates of unemployment in California and the nation, due in large part to the seasonal nature of agricultural employment. “The unemployment rate in the Tulare County was 13.4 percent in February 2015, down from a revised 13.8 percent in January 2015, and below the year-ago estimate of 15.5 percent. This compares with an unadjusted unemployment rate of 6.8 percent for California and 5.8 percent for the nation during the same period.”¹ The general demographic information can be found in **Table 6-2**.

Table 6-2 Profile of General Population and Housing Characteristics - 2010²	
Demographic Profile Data	Tulare County
Population	
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%
Housing	
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%

¹ State of California Employment Development Department, Labor Market Information Division, (March 29, 2013)
[http://www.calmis.ca.gov/file/lfmonth/visa\\$pd.pdf](http://www.calmis.ca.gov/file/lfmonth/visa$pd.pdf)

² U.S. Census Bureau, 2010 Demographic Profile Data <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>

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 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.”³

Some benefits would accrue directly to the general Tulare County economy from this project related to initial expenditures for local labor force, potential purchase of construction and infrastructure materials from local vendors, and possible rental of construction equipment. Also, these economic benefits can have beneficial secondary or “multiplier effects” which refers to the extent to which a Project could indirectly cause increased activity elsewhere in the local or regional economy from the initial local expenditures.

³ CEQA Guidelines Section 15131.

Also, as indicated in Chapter 3.17 Utilities, potential contamination of Matheny Tract's existing groundwater quality (from effluent and high nitrates from septic systems), potential for vectors and disease from exposure to the raw sanitary waste, and the general health and safety of the community's population are some of the adverse environmental impacts which could occur if the Project is not implemented. Because the residents of Matheny Tract are generally low-income, the cost and frequency of maintenance and up-keep can be costly relative to the resident's income. Without the Project, additional expenses could be incurred by Matheny Tract residents to remedy the adverse impacts of a failing septic/leach field system.

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."⁴

As evidenced by the analysis in Chapter 3.14, Population and Housing, the Preferred Alternative is generally within the established unincorporated community of Matheny Tract; with the exception of the main wastewater line within the Road 96 right-of-way extending from Matheny Tract to the City of Tulare's sewer trunk pipeline located within Paige Avenue (Avenue 216). Land uses are predominantly residential, with commercial and religious uses within the community; agriculture and scattered rural residences are within the surrounding area. The Preferred Alternative would take place within and outside Matheny Tract, a generally disadvantaged unincorporated. Although the EIR identifies some potentially significant impacts that could result from the Preferred Alternative, 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 replacement of old, sometimes improperly maintained (and occasionally failing) septic tank/leach line systems with a centralized sanitary wastewater collection, treatment and disposal system would also result in health benefits to the community and benefits from avoiding potential further groundwater contamination.

⁴ State of California, General Plan Guidelines 2003. Page 22, http://opr.ca.gov/docs/General_Plan_Guidelines_2003.pdf

GROWTH-INDUCING EFFECTS

As outlined in the CEQA Guidelines Section 15126 (d), growth-inducing impact of the Preferred Alternative should be addressed.

The Preferred Alternative would result in the development of a sanitary wastewater system involving the construction of collection pipelines from existing development within Matheny Tract and conveyance of the wastewater to the existing wastewater treatment facility in the City of Tulare. Pipelines would be sized as appropriate to serve existing development and to meet potential infill within Matheny Tract only.

Based on the facts provided earlier, the Preferred Alternative would not be growth-inducing. Consequently, there would be ***No Growth-Inducing Impacts*** as a result of constructing the Project as the Preferred Alternative.

REFERENCES

2015 Tulare County Housing Element Update, Adopted November 17, 2015; Certified by State of California Department of Housing and Community Development on December 9, 2015.

CEQA Guidelines

Provost & Pritchard Consulting Group, *Matheny Tract Wastewater System Project Feasibility Report*, 2016.

State of California, General Plan Guidelines 2003, which can be accessed at http://opr.ca.gov/docs/General_Plan_Guidelines_2003.pdf

Tulare County General Plan 2030 Update and Final EIR adopted by the Board of Supervisors, August 28, 2012, Resolution No. 2012-0699.

2010 United States Census.

Chapter 7

IMMITIGABLE IMPACTS

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.”¹ 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 will not result in any 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.

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.)”²

The resources committed to the proposed Project are standard resources necessary for the construction and operation a wastewater collection system and main line (including lift stations and other appurtenances). Potential impacts would occur during the construction-related phase and minimal, if any, would occur during operations of the wastewater collection system and mainline. As noted in applicable resource sections, the 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), the proposed Project would not result in any irreversible life-cycle costs. The proposed Project will be in compliance with the goals of AB32 and the Climate Change Scoping Plan that outlines GHG reductions to 1990 levels.

¹ CEQA Guidelines, Section 15126.2 (b)

² Ibid. 15126.2 (c)

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)”³

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.”⁴

“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.”⁵

“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.”⁶

NO STATEMENT OF OVERRIDING CONSIDERATIONS

Based on the analysis contained in this Draft EIR, there are no environmental impacts that cannot be avoided and there are no irreversible impacts; therefore, a Statement of Overriding Considerations is not necessary. 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.

PROJECT OBJECTIVES AND BENEFIT STATEMENTS

The following objectives are desirable if the Project is constructed as presented in the “Project Description”.

³ CEQA Guidelines, Section 15043

⁴ Ibid. 15093 (a)

⁵ Ibid. 15093 (b)

⁶ Ibid. 15093 (c)

Objective 1: *Connection to the City of Tulare wastewater treatment facility*

Benefit: Construct a system capable of accessing the City of Tulare wastewater treatment facility which would provide adequate on-site wastewater removal and treatment services for Matheny Tract; (provide an average daily flow of 110,000 mgd to meet the wastewater disposal requirements of existing residents, local businesses.).

Objective 2: *Abandonment of on-site septic tank/leach line systems*

Benefit: Eventual abandonment of the existing individual residential on-site septic tank/leach line systems located within Matheny Tract.

Objective 3: *Beneficial Environmental Impacts*

Benefit: Provide a system that has the least potential to result in adverse environmental impacts and would provide an environmental benefit by eliminating wastewater discharge from on-site system tanks into the ground.

Objective 4: *Avert a stand-alone wastewater treatment facility*

Benefit: Avoid construction of a stand-alone wastewater treatment facility (including percolation ponds) in or near Matheny Tract. This would be the most expensive Alternative to the Project and would likely result in an economic and unaffordable hardship to Matheny Tract's residents.

Objective 5: *Protect groundwater supply*

Benefit: Reduce and/or remove the threat of potential groundwater contamination caused by seepage of wastewater from failing and improperly operating septic systems into the underground water supply in the Community and the surrounding area.

Objective 6: *Cost-Efficiency*

Benefit: Provide the most cost-effective, safe, and reliable means to collect and treat wastewater to Title 22 standards.

Objective 7: *Affordable and Effective*

Benefit: Implement an as affordable fees schedule to efficiently and effectively maintain and operate the wastewater system to enhance the quality of life for Matheny Tract residents.

Following are the one hundred fourteen (114) General Plan Policies as they apply to each specific Resource contained in the CEQA Checklist and discussed in Chapter 3 of this document for the Program.

I. AESTHETICS – 1 Policies

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.

II. AGRICULTURAL LANDS AND FORESTRY RESOURCES – 6 Policies

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-1.3 Williamson Act - The County should promote the use of the California Land Conservation Act (Williamson Act) on all agricultural lands throughout the County located outside established UDBs. However, this policy carries with it a caveat that support for the Williamson Act as a tax reduction component is premised on continued funding of the State subvention program that offsets the loss of property taxes.

AG-1.5 Substandard Williamson Act Parcels - The County may work to remove parcels that are less than 10 acres in Prime Farmland and less than 40 Acres in Non-Prime Farmland from Williamson Act Contracts (Williamson Act key term for Prime/Non-Prime).

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 growth boundaries for all urban areas located in the County.

AG-1.10 Extension of Infrastructure into Agricultural Areas - The County shall oppose extension of urban services, such as sewer lines, water lines, or other urban infrastructure, into areas designated for agriculture use unless necessary to resolve a public health situation. Where necessary to address a public health issue, services should be located in public rights-of-way in order to prevent interference with agricultural operations and to provide ease of access for operation and maintenance. Service capacity and length of lines should be designed to prevent the conversion of agricultural lands into urban/suburban uses.

III. AIR QUALITY – 6 Policies

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.

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.

IV. BIOLOGICAL RESOURCES – 5 Policies

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.

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-1.4 Protect Riparian Areas - The County shall protect riparian areas through habitat preservation, designation as open space or recreational land uses, bank stabilization, and development controls.

ERM-1.16 Cooperate with Wildlife Agencies - The County shall cooperate with State and federal wildlife agencies to address linkages between habitat areas.

ERM-2.7 Minimize Adverse Impacts - The County will minimize the adverse effects on environmental features such as water quality and quantity, air quality, flood plains, geophysical characteristics, biotic, archaeological, and aesthetic factors.

V. CULTURAL RESOURCES – 5 Policies

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.

PFS-3.4 Alternative Rural Wastewater Systems - The County shall consider alternative rural wastewater systems for areas outside of community UDBs and HDBs that do not have current systems or system capacity. For individual users, such systems include elevated leach fields, sand filtration systems, evapotranspiration beds, osmosis units, and holding tanks. For larger generators or groups of users, alternative systems, including communal septic tank/leach field systems, package treatment plants, lagoon systems, and land treatment, can be considered.

VI. GEOLOGY AND SOILS – 11 Policies

HS-1.2 Development Constraints - The County shall permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level.

HS-1.3 Hazardous Lands - The County shall designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses.

HS-1.5 Hazard Awareness and Public Education - The County shall continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures.

HS-1.11 Site Investigations - The County shall conduct site investigations in areas planned for new development to determine susceptibility to landslides, subsidence/settlement, contamination, and/or flooding.

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 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.

WR-2.2 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 - 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.

VII. GREENHOUSE GAS EMISSIONS – 6 Policies

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 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.

VIII. HAZARDS AND HAZARDOUS MATERIALS – 2 Policies

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 Federal safety standards, including the Hazardous Waste Management Plan, Emergency Operations Plan, and Area Plan.

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.

IX. HYDROLOGY AND WATER QUALITY –20 Policies

AG-1.10 Extension of Infrastructure into Agricultural Areas - The County shall oppose extension of urban services, such as sewer lines, water lines, or other urban infrastructure, into areas designated for agriculture use unless necessary to resolve a public health situation. Where necessary to address a public health issue, services should be located in public rights-of-way in order to prevent interference with agricultural operations and to provide ease of access for operation and maintenance. Service capacity and length of lines should be designed to prevent the conversion of agricultural lands into urban/suburban uses.

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.

WR-1.1 Groundwater Withdrawal - The County shall cooperate with water agencies and management agencies during land development processes to help promote an adequate, safe, and economically viable groundwater supply for existing and future development within the County. These actions shall be intended to help the County mitigate the potential impact on ground water resources identified during planning and approval processes.

WR-1.5 Expand Use of Reclaimed Wastewater - To augment groundwater supplies and to conserve potable water for domestic purposes, the County shall seek opportunities to expand groundwater recharge efforts

WR-1.6 Expand Use of Reclaimed Water - The County shall encourage the use of tertiary treated wastewater and household gray water for irrigation of agricultural lands, recreation and open space areas, and large landscaped areas as a means of reducing demand for groundwater resources.

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-2.8 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-3.6 Water Use Efficiency - The County shall support educational programs targeted at reducing water consumption and enhancing groundwater recharge.

WR-1.5 Expand Use of Reclaimed Wastewater - To augment groundwater supplies and to conserve potable water for domestic purposes, the County shall seek opportunities to expand groundwater recharge efforts.

PFS-1.8 Funding for Service Providers - The County shall encourage special districts, including community service districts and public utility districts to:

1. Institute impact fees and assessment districts to finance improvements,
2. Take on additional responsibilities for services and facilities within their jurisdictional boundaries up to the full extent allowed under State law, and
3. Investigate feasibility of consolidating services with other districts and annexing systems in proximity to promote economies of scale, such as annexation to city systems and regional wastewater treatment systems.

PFS-1.13 Municipal Service Reviews (MSRs) - The County shall use MSRs adopted by LAFCo and Urban Water Management Plans, as tools to assess the capacity, condition, and financing of various public utility services provided by special districts and cities, most commonly, domestic water and sanitary sewer.

PFS-3.3 New Development Requirements - The County shall require all new development, within UDBs, UABs, Community Plans, Hamlet Plans, Planned Communities, Corridor Areas, Area Plans, existing wastewater district service areas, or zones of benefit, to connect to the wastewater system, where such systems exist. The County may grant exceptions in extraordinary circumstances, but in these cases, the new development shall be required to connect to the wastewater system when service becomes readily available.

PFS-3.7 Financing - The County shall cooperate with special districts when applying for State and federal funding for major wastewater related expansions/upgrades when such plans promote the efficient solution to wastewater treatment needs for the area and County.

FGMP-8.4 Development of Wastewater Systems - The County shall ensure that new wastewater systems meet the standards of the Regional Water Quality Control Board and Tulare County Health & Human Services.

FGMP-9.2 Provision of Adequate Infrastructure - The County shall require evidence, prior to project approval, which (1) describes a safe and reliable method of wastewater treatment and disposal; and (2) substantiates an adequate water supply for domestic and fire protection purposes.

FGMP-9.5 Alternate Sewage Disposal - The County may allow unconventional methods of disposing of sewage effluent, provided the system meets the performance standards of the Water Quality Control Board and the Tulare County Health and Human Services Agency.

Such systems may include, but are not limited to common leach field, soil absorption mounds, aerobic septic tanks, or evapotranspiration systems.

X. LAND USE AND PLANNING – 8 Policies

PF-6.4 UDBs and Interagency Coordination - The County shall use UDBs to provide a definition of an urban area for other planning programs, such as:

1. The area within the UDB should be considered as the same area for which water and sewer system planning may be needed and to be a consideration in the determination of an area required to adequately assess the availability and sufficiency of water supplies.
2. UDBs should be used to define traffic analysis zones in the Regional Transportation Plan program.
3. The UDBs shall be used to provide a framework for inventories on growth and development, as well as socio-economic data

AG-1.10 Extension of Infrastructure into Agricultural Areas - The County shall oppose extension of urban services, such as sewer lines, water lines, or other urban infrastructure, into areas designated for agriculture use unless necessary to resolve a public health situation. Where necessary to address a public health issue, services should be located in public rights-of-way in order to prevent interference with agricultural operations and to provide ease of access for operation and maintenance. Service capacity and length of lines should be designed to prevent the conversion of agricultural lands into urban/suburban uses.

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-2.4 Construction Site Sediment Control - The County shall continue to enforce provisions to control erosion and sediment from construction sites.

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.

PFS-1.5 Funding for Public Facilities - The County shall implement programs and/or procedures to ensure that funding mechanisms necessary to adequately cover the costs related to planning, capital improvements, maintenance, and operations of necessary public facilities and services are in place, whether provided by the County or another entity.

PFS-3.4 Alternative Rural Wastewater Systems - The County shall consider alternative rural wastewater systems for areas outside of community UDBs and HDBs that do not have current systems or system capacity. For individual users, such systems include elevated leach

fields, sand filtration systems, evapotranspiration beds, osmosis units, and holding tanks. For larger generators or groups of users, alternative systems, including communal septic tank/leach field systems, package treatment plants, lagoon systems, and land treatment, can be considered.

PFS-3.5 Wastewater System Failures - The County shall require landowners to repair failing septic tanks, leach field, and package systems that constitute a threat to water quality and public health or connect to an existing community system through applicable County and/or Regional Water Quality Control Board standards and requirements.

XI. MINERAL RESOURCES – 3 Policies

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-2.2 Recognize Mineral Deposits - The County will recognize as a part of the General Plan those areas of identified and/or potential mineral deposits.

ERM-2.10 Incompatible Development - Proposed incompatible land uses in the County shall not be on lands containing or adjacent to identified mineral deposits, or along key access roads, unless adequate mitigation measures are adopted or a statement of overriding considerations stating public benefits and overriding reasons for permitting the proposed use are adopted.

XII. NOISE – 4 Policies

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-8.11 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.

XIII. POPULATION AND HOUSING (2015-2030 Tulare County Housing Element) – 13 Policies

- Policy 1.11 Encourage the development of a broad range of housing types to provide an opportunity of choice in the local housing market.
- Policy 1.14 Pursue an equitable distribution of future regional housing needs allocations, thereby providing a greater likelihood of assuring a balance between housing development and the location of employment opportunities.
- Policy 1.33 Encourage and support a balance between housing and agricultural needs.
- Policy 2.11 Encourage Federal and State governments to increase the level of funding for improvements or expansion of public infrastructure serving the unincorporated communities.
- Policy 2.12 Increase opportunities for technical assistance to public utility districts and community service districts and mutual water companies in an effort to educate and assist them in attaining the necessary public infrastructure.
- Policy 2.13 When land is purchased by the County in conjunction with installation of new public facilities, the County will endeavor to make any excess land available to housing agencies for development of affordable housing.
- Policy 2.14 Create and maintain a matrix of Infrastructure Development Priorities for Disadvantaged Unincorporated Communities in Tulare County through analysis and investigation of public infrastructure needs and deficits, pursuant to Action Program 9.
- Policy 2.21 Require all proposed housing within the development boundaries of unincorporated communities is either (1) served by community water and sewer, or (2) that physical conditions permit safe treatment of liquid waste by septic tank systems and the use of private wells.
- Policy 2.24 Improvement requirements should reflect a balance between housing needs and the protection of public health and safety.
- Policy 2.25 The County shall encourage special districts, including community services districts and public utility districts to: 1. Institute impact fees and assessment districts to finance improvements, 2. Take on additional responsibilities for services and facilities within their jurisdictional boundaries up to the full extent allowed under State law, and 3. Investigate feasibility of consolidating services with other districts and annexing systems in proximity to promote economies of scale, such as annexation to city systems and regional wastewater treatment systems (GPU PFS 1.8 Funding for Service Providers).

- Policy 3.11 Support and coordinate with local economic development programs to encourage a “jobs to housing balance” throughout the unincorporated area.
- Policy 5.21 Administer and enforce the relevant portions of the Health and Safety Code.
- Action Program 9 – Housing Related Infrastructure Needs

Provide vital information used for planning and development purposes, target expansion or repair of infrastructure and municipal services to areas with the most need and secure Federal and State funding for housing-related infrastructure. Provide technical assistance to PUDs, CSDs, and Mutual to fund infrastructure improvement and expansion, ensure safe and adequate water and liquid waste disposal, and have an equitable balance of fees between new and existing residents.

XIV. PUBLIC SERVICES – 7 Policies

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.

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.

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.

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.

XV. RECREATION – None that would apply to this Project.

XVI. TRANSPORTATION AND TRAFFIC – 3 Policies

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-1.16 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.

HS-1.9 Emergency Access - The County shall require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation.

XVII. TRIBAL CULTURAL RESOURCES– 6 Policies

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.

XVIII. UTILITIES AND SERVICES SYSTEMS – 8 Policies

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-2.5 New Systems or Individual Wells - Where connection to a community water system is not feasible per PFS-2.4: Water Connections, service by individual wells or new community systems may be allowed if the water source meets standards for quality and quantity.

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-3.4 Alternative Rural Wastewater Systems - The County shall consider alternative rural wastewater systems for areas outside of community UDBs and HDBs that do not have current systems or system capacity. For individual users, such systems include elevated leach fields, sand filtration systems, evapotranspiration beds, osmosis units, and holding tanks. For larger generators or groups of users, alternative systems, including communal septic tank/leach field systems, package treatment plants, lagoon systems, and land treatment, can be considered.

PFS-4.1 Stormwater Management Plans - The County shall oversee, as per Community Plan Content Table PF-2.1 and Specific Plan Content, Hamlet Plans Policy PF-3.3, and Table LU-4.3, the preparation and adoption of stormwater management plans for communities and hamlets to reduce flood risk, protect soils from erosion, control stormwater, and minimize impacts on existing drainage facilities, and develop funding mechanisms as a part of the Community Plan and Hamlet Plan process.

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.

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-5.8 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. In order to implement the wastewater services, an entity with

sufficient operational capabilities may be formed. The community could also leave governance of wastewater operations to the City of Livingston through an extraterritorial agreement. As is the case with the Pratt Mutual Water Company, which currently owns and operates the community's water system, creation of a private wastewater service entity is an option.

REFERENCES

Chapter 3.1 thru 3.18 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

CHAPTER 8

MITIGATION MONITORING AND REPORTING PROGRAM

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 Plainview Wastewater System Feasibility Report's recommended Alternative 2 – Connection to the City of Lindsay's Existing Wastewater Treatment Facility, the Preferred/Proposed Project. As noted earlier, this document has been prepared using the Preferred Alternative (Alternative 4, Lindsay option) as the proposed Project. As such, the following discussion refers to the "Preferred/Proposed Project" as "the 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

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Matheny Tract Wastewater System Project Feasibility Report

Table 8-1 presents the Mitigation Measures identified for the proposed Project in this EIR. Each Mitigation Measure is identified by alpha-numeric symbol indicating the topical section to which it pertains, a hyphen, and the impact number. For example, BIO 3.4-1 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 “When Monitoring is to Occur,” identifies the time the Mitigation Measure should be initiated. The third column, “Frequency of Monitoring,” identifies 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 fourth column, “Agency Responsible for Monitoring,” names the party ultimately responsible for ensuring that the Mitigation Measure is implemented. The last columns will be used by the Wastewater System Governing Entity once formed 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/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
					Initials	Date	Remarks
BIOLOGICAL RESOURCES: <i>Based on the disturbed condition of the majority of the sites, reasonable inferences were made that it was unlikely that any of the sensitive species listed would actually occur onsite. However, this Project does not preclude the opportunity for special status species from accessing or traveling through the site prior or post construction phases. Historically, there have been records of special status species in the vicinity of the proposed Alternatives. Within the context of CEQA, potential impacts could result in significant impacts (especially in the event Alternative 3 (standalone Matheny Tract Community Wastewater Treatment Facility) is chosen), implementation of Mitigation Measures 3.4-1 through 3.4-7 would reduce potential impacts to Less Than Significant.</i>							
Plant Species							
Impact: Four (4) special status species are known to occur in the vicinity of the proposed Project action area. As shown in the CNDDDB results (Appendix “B”), the presence of Swainson’s hawk was indicated within 10 miles of the site in the last 10 years. No evidence is available to suggest that other raptor species are within the vicinity of the Project site (for example, through CNDDDB information and existing uses; such as residential uses, commercial uses, roadways, etc., and the absence of suitable trees for nesting).		.					
Bio 3.4-1 Avoidance: Special Status plant species: No impacts to Special Status plant species are anticipated, however, as a measure to ensure that no species occur in these areas prior to construction, if either Alternatives 2 or 3 are selected, pre-construction surveys shall be required before construction. Surveys should be timed to coincide with flowering periods for species that could occur (March-May).	Prior to start of construction.	Once within 30 days of construction, unless pre-construction survey results in new recommendation for further study and mitigation. Then mitigation should occur as recommended following coordination with Governing Entity.	Governing Entity established for operating the Wastewater System Services.	Field survey by a qualified Biologist.			

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Table 8-1
Mitigation Monitoring and Reporting Program

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
					Initials	Date	Remarks
Bio 3.4-2., Minimization (Special Status Plant Species): Because no impacts to Special Status plant species are anticipated, no minimization is required, but see Mitigation Measure 3.4-1 as well. If pre-construction surveys detect special status plant species, transplantation, project modification and/or compensation shall be employed.	Prior to construction-related activities.	As needed if special status species are detected.	Governing Entity established for operating the Wastewater System Services.	Qualified biologist.			
Bio 3.4-3. Compensation (Special Status plant species): No compensation is anticipated as part of the Alternatives. If Special Status plant species are detected during pre-construction surveys in the action areas or impact footprints, compensation for impacts shall be required to compensate for impacts.	Prior to construction-related activities.	As needed if special status species are detected.	Governing Entity established for operating the Wastewater System Services.	Qualified biologist working with USFS and/or CFW			
Bio 3.4-4. Monitoring (Special Status plant species): No monitoring is required. If pre-construction surveys detect plant species along the alignments/action areas, or impact footprints, but can be avoided, construction monitoring shall be required to ensure avoidance of those sensitive areas.	During construction-related activities.	On-going during construction-related activities	Governing Entity established for operating the Wastewater System Services.	Construction manager with oversight by qualified biologist.			
Animal Species							
Bio 3.4-5. Avoidance (Special Status Animal Species): Impacts to all kit fox dens, potential raptor nests and other animals located along the alignments shall be avoided.	Prior to start of construction.	Once within 30 days of construction, unless pre-construction survey results in new recommendation for further study and mitigation. Then mitigation should	Governing Entity established for operating the Wastewater System Services.	Field survey by a qualified Biologist.			

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Table 8-1 Mitigation Monitoring and Reporting Program							
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
					Initials	Date	Remarks
		occur as recommended following coordination with Governing Entity.					
Bio 3.4-6. Minimization (Special Status Animal Species): Minimization measures assume that some level of impact will occur (that some level of disturbance occurs). Under this approach, the Agency shall consult with DFW/USFWS. As the Agency initiates this process they can offer to perform the following measures as part of their permitting process with the agencies in order to help minimize impacts to the kit foxes, raptors and other species: <ul style="list-style-type: none"> • Revegetate disturbed areas with trees and grass from on the site or adjacent areas; • Conduct employee education programs to inform workers about sensitive biological resources they may encounter and what they should do to minimize potential impacts. 	Implemented only if sensitive species are encountered.						
3.4-7 Monitoring (Special Status Animal Species): If pre-construction surveys detect listed or protected species along any of the project alternatives, while construction occurs, a biologist will need to be on-site to educate workers, monitor compliance, [ensure implementation of] best management practices and to identify and protect natural resources, including Special Status Species. The monitor will be responsible for ensuring that appropriate	During construction.	As needed during construction.	Governing Entity.	Determination by qualified biologist.			

Chapter 8: Mitigation Monitoring and Reporting Program

June 2017

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Matheny Tract Wastewater System Project Feasibility Report

Table 8-1 Mitigation Monitoring and Reporting Program							
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
					Initials	Date	Remarks
<p>measures are taken to prevent disturbance of core avoidance areas. Any unauthorized take of Special Status species will be immediately reported to DFW by the monitor. The monitor will also notify the Project Coordinator who will stop work until corrective measures are implemented.</p> <p>The designated Project Coordinator and the designated monitor for this Project will need to be established if Agency decides to pursue mitigation and monitoring.</p>							
CULTURAL RESOURCES:							
<p>Cul 3.5-1 - 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 Preferred/ Proposed Project site be immediately suspended until the significance of the features can be determined by a qualified archaeologist or paleontologist. In this event, the specialists shall 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</p>	During Construction	Daily or as needed throughout the construction period if suspicious resources are discovered	Governing Entity established for operating the Wastewater System Services via field evaluation of the resource finds by a qualified archaeologist	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.			

Chapter 8: Mitigation Monitoring and Reporting Program

June 2017

Draft Environmental Impact Report
Matheny Tract Wastewater System Project Feasibility Report

Table 8-1 Mitigation Monitoring and Reporting Program							
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
					Initials	Date	Remarks
previously approved by the County.							
Cul 3.5-2 - The property owner shall avoid and minimize impacts to paleontological resources. If a potentially significant paleontological resource is encountered during ground disturbing activities, all construction within a 100-foot radius of the find shall immediately cease until a qualified paleontologist determines whether the resources requires further study. The project proponent shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. The paleontologist shall notify the Tulare County Resource Management Agency and the project proponent of the procedures that must be followed before construction is allowed to resume at the location of the find. If the find is determined to be significant and the Tulare County Resource Management Agency determines avoidance is not feasible, the paleontologist shall design and implement a data recovery plan consistent with applicable standards. The plan shall be submitted to the Tulare County Resource Management Agency for review and approval. Upon approval, the plan shall be incorporated into the project.	During Construction	Daily or as needed throughout the construction period if suspicious resources are discovered	Governing Entity established for operating the Wastewater System Services via field evaluation of the resource finds by a qualified archaeologist	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.			
TRANSPORTATION/TRAFFIC							
Trans 3.16-1 Fences, barriers, lights, flagging, guards, and signs will be installed as determined	During Construction	On-going during construction-related	County of Tulare/	Maintenance by contractor of			

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Table 8-1
Mitigation Monitoring and Reporting Program

Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
					Initials	Date	Remarks
appropriate by the public agency having jurisdiction to give adequate warning to the public of the construction and of any potentially dangerous condition to be encountered as a result thereof.	activities	activities	Governing Entity established for constructing and operating the Wastewater System Services via specific contractual requirements and via on-going review of records kept by contractor to document compliance	documentary evidence of compliance. Such records to be provided to County of Tulare/Governing Entity upon request			

Chapter 9

Report Preparation

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:

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APPENDIX A

AIR QUALITY

Road Construction Emissions Model, Version 7.1.5.1

Emission Estimates for -> Plainview WWS				Total	Exhaust	Fugitive Dust	Total	Exhaust	Fugitive Dust	
Project Phases (English Units)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	PM10 (lbs/day)	PM10 (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)	PM2.5 (lbs/day)	PM2.5 (lbs/day)	CO2 (lbs/day)
Grubbing/Land Clearing	-	-	-	-	-	-	-	-	-	-
Grading/Excavation	9.5	43.2	77.3	6.8	4.3	2.5	4.5	4.0	0.5	7,775.0
Drainage/Utilities/Sub-Grade	10.3	47.2	74.3	7.3	4.8	2.5	4.9	4.4	0.5	8,058.2
Paving	5.8	27.1	35.8	2.5	2.5	-	2.3	2.3	-	4,298.3
Maximum (pounds/day)	10.3	47.2	77.3	7.3	4.8	2.5	4.9	4.4	0.5	8,058.2
Total (tons/construction project)	1.3	5.8	9.6	0.8	0.6	0.3	0.6	0.5	0.1	1,012.7
Notes: Project Start Year -> 2016										
Project Length (months) -> 13										
Total Project Area (acres) -> 11										
Maximum Area Disturbed/Day (acres) -> 0										
Total Soil Imported/Exported (yd³/day)-> 0										
PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.										
Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.										

Emission Estimates for -> Plainview WWS				Total	Exhaust	Fugitive Dust	Total	Exhaust	Fugitive Dust	
Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	PM10 (kgs/day)	PM10 (kgs/day)	PM10 (kgs/day)	PM2.5 (kgs/day)	PM2.5 (kgs/day)	PM2.5 (kgs/day)	CO2 (kgs/day)
Grubbing/Land Clearing	-	-	-	-	-	-	-	-	-	-
Grading/Excavation	4.3	19.6	35.1	3.1	2.0	1.1	2.0	1.8	0.2	3,534.1
Drainage/Utilities/Sub-Grade	4.7	21.5	33.8	3.3	2.2	1.1	2.2	2.0	0.2	3,662.8
Paving	2.6	12.3	16.3	1.1	1.1	-	1.0	1.0	-	1,953.8
Maximum (kilograms/day)	4.7	21.5	35.1	3.3	2.2	1.1	2.2	2.0	0.2	3,662.8
Total (megagrams/construction project)	1.2	5.3	8.7	0.8	0.5	0.2	0.5	0.5	0.0	918.6
Notes: Project Start Year -> 2016										
Project Length (months) -> 13										
Total Project Area (hectares) -> 4										
Maximum Area Disturbed/Day (hectares) -> 0										
Total Soil Imported/Exported (meters³/day)-> 0										
PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.										
Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I. Total PM2.5 emissions shown in Column J are the sum of exhaust and fugitive dust emissions shown in columns K and L.										

Road Construction Emissions Model

Version 7.1.5.1

Data Entry Worksheet

Note: Required data input sections have a yellow background.

Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background.

The user is required to enter information in cells C10 through C25.



Input Type

Project Name	Plainview WWS	
Construction Start Year	2016	Enter a Year between 2009 and 2025 (inclusive)
Project Type	1	1 New Road Construction 2 Road Widening 3 Bridge/Overpass Construction
Project Construction Time	12.50	months
Predominant Soil/Site Type: Enter 1, 2, or 3	2	1. Sand Gravel 2. Weathered Rock-Earth 3. Blasted Rock
Project Length	4.50	miles
Total Project Area	11.00	acres
Maximum Area Disturbed/Day	0.25	acres
Water Trucks Used?	1	1. Yes 2. No
Soil Imported		yd ³ /day
Soil Exported		yd ³ /day
Average Truck Capacity	20	yd ³ (assume 20 if unknown)

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

The remaining sections of this sheet contain areas that can be modified by the user, although those modifications are optional.

Note: The program's estimates of construction period phase length can be overridden in cells C34 through C37.

Construction Periods	User Override of	Program
	Construction Months	Calculated Months
Grubbing/Land Clearing	0.00	1.25
Grading/Excavation	5.63	5.63
Drainage/Utilities/Sub-Grade	4.99	3.75
Paving	1.88	1.88
Totals	12.50	12.50

2005	%	2006	%	2007	%
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	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00

NOTE: soil hauling emissions are included in the Grading/Excavation Construction Period Phase, therefore the Construction Period for Grading/Excavation cannot be zero if hauling is part of the project.

Hauling emission default values can be overridden in cells C45 through C46.

Soil Hauling Emissions						
User Input	User Override of					
	Soil Hauling Defaults		Default Values			
	Miles/round trip		30			
	Round trips/day		0			
Vehicle miles traveled/day (calculated)						0
Hauling Emissions	ROG	NOx	CO	PM10	PM2.5	CO2
Emission rate (grams/mile)	0.16	8.25	0.70	0.17	0.10	1679.86
Emission rate (grams/trip)	0.00	0.00	0.00	0.00	0.00	0.00
Pounds per day	0.00	0.00	0.00	0.00	0.00	0.00
Tons per construction period	0.00	0.00	0.00	0.00	0.00	0.00

Worker commute default values can be overridden in cells C60 through C65.

Worker Commute Emissions						
	User Override of Worker					
	Commute Default Values		Default Values			
	Miles/ one-way trip		20			
	One-way trips/day		2			
No. of employees: Grubbing/Land Clearing	8.00		14			
No. of employees: Grading/Excavation	8.00		26			
No. of employees: Drainage/Utilities/Sub-Grade	8.00		24			
No. of employees: Paving	8.00		20			
	ROG	NOx	CO	PM10	PM2.5	CO2
Emission rate - Grubbing/Land Clearing (grams/mile)	0.000	0.000	0.000	0.000	0.000	0.000
Emission rate - Grading/Excavation (grams/mile)	0.147	0.194	1.744	0.047	0.020	443.650
Emission rate - Draining/Utilities/Sub-Grade (gr/mile)	0.147	0.194	1.744	0.047	0.020	443.650
Emission rate - Paving (grams/mile)	0.143	0.188	1.694	0.047	0.020	443.681
Emission rate - Grubbing/Land Clearing (grams/trip)	0.000	0.000	0.000	0.000	0.000	0.000
Emission rate - Grading/Excavation (grams/trip)	0.505	0.323	4.200	0.004	0.003	95.592
Emission rate - Draining/Utilities/Sub-Grade (gr/trip)	0.505	0.323	4.200	0.004	0.003	95.592
Emission rate - Paving (grams/trip)	0.493	0.313	4.088	0.004	0.003	95.606
Pounds per day - Grubbing/Land Clearing	0.000	0.000	0.000	0.000	0.000	0.000
Tons per const. Period - Grub/Land Clear	0.000	0.000	0.000	0.000	0.000	0.000
Pounds per day - Grading/Excavation	0.122	0.148	1.377	0.033	0.014	316.074
Tons per const. Period - Grading/Excavation	0.008	0.009	0.085	0.002	0.001	19.574
Pounds per day - Drainage/Utilities/Sub-Grade	0.122	0.148	1.377	0.033	0.014	316.074
Tons per const. Period - Drain/Util/Sub-Grade	0.007	0.008	0.076	0.002	0.001	17.349
Pounds per day - Paving	0.119	0.144	1.338	0.033	0.014	316.096
Tons per const. Period - Paving	0.002	0.003	0.028	0.001	0.000	6.537
tons per construction period	0.017	0.020	0.189	0.005	0.002	43.461

Water truck default values can be overridden in cells C91 through C93 and E91 through E93.

Water Truck Emissions	User Override of	Program Estimate of	User Override of Truck	Default Values		
	Default # Water Trucks	Number of Water Trucks	Miles Traveled/Day	Miles Traveled/Day		
Grubbing/Land Clearing - Exhaust		1		40		
Grading/Excavation - Exhaust		1		40		
Drainage/Utilities/Subgrade		1		40		
	ROG	NOx	CO	PM10	PM2.5	CO2
Emission rate - Grubbing/Land Clearing (grams/mile)	0.00	0.00	0.00	0.00	0.00	0.00
Emission rate - Grading/Excavation (grams/mile)	0.16	8.25	0.70	0.17	0.10	1679.86
Emission rate - Draining/Utilities/Sub-Grade (gr/mile)	0.16	8.25	0.70	0.17	0.10	1679.86
Pounds per day - Grubbing/Land Clearing	0.00	0.00	0.00	0.00	0.00	0.00
Tons per const. Period - Grub/Land Clear	0.00	0.00	0.00	0.00	0.00	0.00
Pound per day - Grading/Excavation	0.01	0.73	0.06	0.01	0.01	148.00
Tons per const. Period - Grading/Excavation	0.00	0.05	0.00	0.00	0.00	9.17
Pound per day - Drainage/Utilities/Subgrade	0.01	0.73	0.06	0.01	0.01	148.00
Tons per const. Period - Drainage/Utilities/Subgrade	0.00	0.04	0.00	0.00	0.00	8.12

Fugitive dust default values can be overridden in cells C110 through C112.

Fugitive Dust	User Override of Max	Default	PM10	PM10	PM2.5	PM2.5
	Acreage Disturbed/Day	Maximum Acreage/Day	pounds/day	tons/per period	pounds/day	tons/per period
Fugitive Dust - Grubbing/Land Clearing		0	0.0	0.0	0.0	0.0
Fugitive Dust - Grading/Excavation		0.25	2.5	0.2	0.5	0.0
Fugitive Dust - Drainage/Utilities/Subgrade		0.25	2.5	0.1	0.5	0.0

Off-Road Equipment Emissions

Grubbing/Land Clearing	Default Number of Vehicles <i>Program-estimate</i>	Type	ROG	CO	NOx	PM10	PM2.5	CO2
			pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
		Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00
		Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00
		Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00
		Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00
		Cranes	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1	Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1	Excavators	0.00	0.00	0.00	0.00	0.00	0.00
		Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00
		Graders	0.00	0.00	0.00	0.00	0.00	0.00
		Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00
		Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00
		Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Pavers	0.00	0.00	0.00	0.00	0.00	0.00
		Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00
		Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00
		Pumps	0.00	0.00	0.00	0.00	0.00	0.00
		Rollers	0.00	0.00	0.00	0.00	0.00	0.00
		Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00
		Scrapers	0.00	0.00	0.00	0.00	0.00	0.00
0.00	9	Signal Boards	0.00	0.00	0.00	0.00	0.00	0.00
		Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00
		Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00
		Tractors/Loaders/Backhoes	0.00	0.00	0.00	0.00	0.00	0.00
		Trenchers	0.00	0.00	0.00	0.00	0.00	0.00
		Welders	0.00	0.00	0.00	0.00	0.00	0.00
	Grubbing/Land Clearing	pounds per day	0.0	0.0	0.0	0.0	0.0	0.0
	Grubbing/Land Clearing	tons per phase	0.0	0.0	0.0	0.0	0.0	0.0

Grading/Excavation	Default		ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day	PM2.5 pounds/day	CO2 pounds/day
	Number of Vehicles	Type						
Override of Default Number of Vehicles	Program-estimate							
		Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00
		Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00
		Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00
		Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00
1.00	0	Cranes	0.75	3.00	8.48	0.38	0.35	601.74
	1	Crawler Tractors	0.74	4.47	9.52	0.37	0.34	824.89
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00
1.00	3	Excavators	0.41	2.79	4.47	0.22	0.20	572.86
		Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00
1.00	1	Graders	1.07	3.48	10.38	0.58	0.54	671.02
		Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00
		Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00
		Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00
2.00		Other Material Handling Equipment	1.19	6.35	12.13	0.65	0.60	1217.19
		Pavers	0.00	0.00	0.00	0.00	0.00	0.00
		Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Plate Compactors	0.00	0.00	0.00	0.00	0.00	0.00
		Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00
		Pumps	0.00	0.00	0.00	0.00	0.00	0.00
0.00	2	Rollers	0.00	0.00	0.00	0.00	0.00	0.00
		Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00
1.00	1	Rubber Tired Loaders	0.52	3.12	6.51	0.22	0.20	662.62
0.00	2	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00
	9	Signal Boards	3.27	12.28	11.88	0.86	0.79	1416.90
		Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00
		Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00
4.00	2	Tractors/Loaders/Backhoes	1.43	6.29	13.08	1.01	0.93	1343.70
		Trenchers	0.00	0.00	0.00	0.00	0.00	0.00
		Welders	0.00	0.00	0.00	0.00	0.00	0.00
	Grading/Excavation	pounds per day	9.4	41.8	76.4	4.3	3.9	7310.9
	Grading	tons per phase	0.6	2.6	4.7	0.3	0.2	452.8

Drainage/Utilities/Subgrade	Default		ROG	CO	NOx	PM10	PM2.5	CO2
	Number of Vehicles Override of Default Number of Vehicles		pounds/day	pounds/day	pounds/day	pounds/day	pounds/day	pounds/day
	<i>Program-estimate</i>							
		Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00
	1	Air Compressors	0.68	3.42	4.38	0.37	0.34	507.95
		Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00
4.00		Cement and Mortar Mixers	0.27	1.41	1.69	0.07	0.06	231.52
1.00		Concrete/Industrial Saws	0.51	2.98	3.65	0.28	0.25	467.14
		Cranes	0.00	0.00	0.00	0.00	0.00	0.00
		Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Excavators	0.00	0.00	0.00	0.00	0.00	0.00
		Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
	1	Generator Sets	0.51	2.98	3.86	0.27	0.25	487.07
	1	Graders	1.07	3.48	10.38	0.58	0.54	671.02
		Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00
		Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00
		Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00
4.00		Other Material Handling Equipment	2.38	12.69	24.25	1.30	1.20	2434.39
		Pavers	0.00	0.00	0.00	0.00	0.00	0.00
		Paving Equipment	0.00	0.00	0.00	0.00	0.00	0.00
	1	Plate Compactors	0.04	0.21	0.25	0.01	0.01	34.45
		Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1	Pumps	0.00	0.00	0.00	0.00	0.00	0.00
		Rollers	0.00	0.00	0.00	0.00	0.00	0.00
0.00	1	Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00
		Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00
0.00	2	Scrapers	0.00	0.00	0.00	0.00	0.00	0.00
	9	Signal Boards	3.27	12.28	11.88	0.86	0.79	1416.90
		Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00
		Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00
		Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00
4.00	2	Tractors/Loaders/Backhoes	1.43	6.29	13.08	1.01	0.93	1343.70
		Trenchers	0.00	0.00	0.00	0.00	0.00	0.00
		Welders	0.00	0.00	0.00	0.00	0.00	0.00
	Drainage	pounds per day	10.2	45.8	73.4	4.7	4.4	7594.1
	Drainage	tons per phase	0.6	2.5	4.0	0.3	0.2	416.8

Paving	Default		ROG	CO	NOx	PM10	PM2.5	CO2	
	Number of Vehicles								
	Override of Default Number of Vehicles	Program-estimate							Type
			Aerial Lifts	0.00	0.00	0.00	0.00	0.00	0.00
			Air Compressors	0.00	0.00	0.00	0.00	0.00	0.00
			Bore/Drill Rigs	0.00	0.00	0.00	0.00	0.00	0.00
			Cement and Mortar Mixers	0.00	0.00	0.00	0.00	0.00	0.00
			Concrete/Industrial Saws	0.00	0.00	0.00	0.00	0.00	0.00
			Cranes	0.00	0.00	0.00	0.00	0.00	0.00
			Crawler Tractors	0.00	0.00	0.00	0.00	0.00	0.00
			Crushing/Proc. Equipment	0.00	0.00	0.00	0.00	0.00	0.00
			Excavators	0.00	0.00	0.00	0.00	0.00	0.00
			Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
			Generator Sets	0.00	0.00	0.00	0.00	0.00	0.00
			Graders	0.00	0.00	0.00	0.00	0.00	0.00
			Off-Highway Tractors	0.00	0.00	0.00	0.00	0.00	0.00
			Off-Highway Trucks	0.00	0.00	0.00	0.00	0.00	0.00
			Other Construction Equipment	0.00	0.00	0.00	0.00	0.00	0.00
			Other General Industrial Equipment	0.00	0.00	0.00	0.00	0.00	0.00
			Other Material Handling Equipment	0.00	0.00	0.00	0.00	0.00	0.00
1.00	1		Pavers	0.41	2.84	4.36	0.22	0.20	481.75
1.00	1		Paving Equipment	0.31	2.69	3.44	0.17	0.16	426.34
1.00			Plate Compactors	0.04	0.21	0.25	0.01	0.01	34.45
			Pressure Washers	0.00	0.00	0.00	0.00	0.00	0.00
			Pumps	0.00	0.00	0.00	0.00	0.00	0.00
1.00	3		Rollers	0.34	1.51	3.03	0.22	0.20	279.51
			Rough Terrain Forklifts	0.00	0.00	0.00	0.00	0.00	0.00
			Rubber Tired Dozers	0.00	0.00	0.00	0.00	0.00	0.00
			Rubber Tired Loaders	0.00	0.00	0.00	0.00	0.00	0.00
			Scrapers	0.00	0.00	0.00	0.00	0.00	0.00
	9		Signal Boards	3.17	12.19	11.76	0.83	0.77	1416.90
			Skid Steer Loaders	0.00	0.00	0.00	0.00	0.00	0.00
			Surfacing Equipment	0.00	0.00	0.00	0.00	0.00	0.00
			Sweepers/Scrubbers	0.00	0.00	0.00	0.00	0.00	0.00
4.00	2		Tractors/Loaders/Backhoes	1.41	6.29	12.85	0.98	0.91	1343.27
			Trenchers	0.00	0.00	0.00	0.00	0.00	0.00
			Welders	0.00	0.00	0.00	0.00	0.00	0.00
	Paving	pounds per day	5.7	25.7	35.7	2.4	2.2	3982.2	
	Paving	tons per phase	0.1	0.5	0.7	0.1	0.0	82.4	
Total Emissions all Phases (tons per construction period) =>			1.3	5.6	9.5	0.6	0.5	952.0	

Equipment default values for horsepower and hours/day can be overridden in cells C289 through C322 and E289 through E322.

Equipment		Default Values Horsepower		Default Values Hours/day
Aerial Lifts		63		8
Air Compressors		106		8
Bore/Drill Rigs		206		8
Cement and Mortar Mixers		10		8
Concrete/Industrial Saws		64		8
Cranes		226		8
Crawler Tractors		208		8
Crushing/Proc. Equipment		142		8
Excavators		163		8
Forklifts		89		8
Generator Sets		66		8
Graders		175		8
Off-Highway Tractors		123		8
Off-Highway Trucks		400		8
Other Construction Equipment		172		8
Other General Industrial Equipment		88		8
Other Material Handling Equipment		167		8
Pavers		126		8
Paving Equipment		131		8
Plate Compactors		8		8
Pressure Washers		26		8
Pumps		53		8
Rollers		81		8
Rough Terrain Forklifts		100		8
Rubber Tired Dozers		255		8
Rubber Tired Loaders		200		8
Scrapers		362		8
Signal Boards		20		8
Skid Steer Loaders		65		8
Surfacing Equipment		254		8
Sweepers/Scrubbers		64		8
Tractors/Loaders/Backhoes		98		8
Trenchers		81		8
Welders		45		8

APPENDIX B

BIOLOGICAL EVALUATION



Query Criteria: Taxonomic Group IS (Dune> OR Scrub> OR Herbaceous> OR Marsh> OR Riparian> OR Woodland> OR Forest> OR Alpine> OR Inland Waters> OR Marine> OR Estuarine> OR Riverine> OR Palustrine> OR Fish> OR Amphibians> OR Reptiles> OR Birds> OR Mammals> OR Mollusks> OR Arachnids> OR Crustaceans> OR Insects> OR Ferns> OR Gymnosperms> OR Monocots> OR Dicots> OR Lichens> OR Bryophytes> OR Fungi)
AND (Federal Listing Status> IS (Endangered> OR Threatened> OR Proposed Endangered> OR Proposed Threatened> OR Candidate)> OR State Listing Status> IS (Endangered> OR Threatened> OR Rare> OR Candidate Endangered> OR Candidate Threatened))
AND Quad> IS (Tulare (3611923))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
California jewelflower <i>Caulanthus californicus</i>	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
San Joaquin adobe sunburst <i>Pseudobahia peirsonii</i>	PDAST7P030	Threatened	Endangered	G1	S1	1B.1
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	AMAJA03041	Endangered	Threatened	G4T2	S2	
Swainson's hawk <i>Buteo swainsoni</i>	ABNKC19070	None	Threatened	G5	S3	

Record Count: 4



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Taxonomic Group IS (Dune OR Scrub OR Herbaceous OR Marsh OR Riparian OR Woodland OR Forest OR Alpine OR Inland Waters OR Marine OR Estuarine OR Riverine OR Palustrine OR Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects OR Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes OR Fungi)
 AND (Federal Listing Status IS (Endangered OR Threatened OR Proposed Endangered OR Proposed Threatened OR Candidate) OR State Listing Status IS (Endangered OR Threatened OR Rare OR Candidate Endangered OR Candidate Threatened))
 AND Quad IS (Tulare (3611923))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Caulanthus californicus</i> California jewelflower	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
<i>Pseudobahia peirsonii</i> San Joaquin adobe sunburst	PDAST7P030	Threatened	Endangered	G1	S1	1B.1
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

Record Count: 4

CALIFORNIA DEPARTMENT OF

FISH and WILDLIFE

RareFind

Query Summary:

Taxonomic Group **IS** (Dune **OR** Scrub **OR** Herbaceous **OR** Marsh **OR** Riparian **OR** Woodland **OR** Forest **OR** Alpine **OR** Inland Waters **OR** Marine **OR** Estuarine **OR** Riverine **OR** Palustrine **OR** Fish **OR** Amphibians **OR** Reptiles **OR** Birds **OR** Mammals **OR** Mollusks **OR** Arachnids **OR** Crustaceans **OR** Insects **OR** Ferns **OR** Gymnosperms **OR** Monocots **OR** Dicots **OR** Lichens **OR** Bryophytes **OR** Fungi)

AND Federal Listing Status **IS** (Endangered **OR** Threatened **OR** Proposed Endangered **OR** Proposed Threatened **OR** Candidate) **OR** State Listing Status **IS** (Endangered **OR** Threatened **OR** Rare **OR** Candidate Endangered **OR** Candidate Threatened)

AND Quad **IS** (Tulare (3611923))

Print

Close

CNDDDB Element Query Results

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Buteo swainsoni	Swainson's hawk	Birds	ABNKC19070	2425	4	None	Threatened	G5	S3	null	BLM_S-Sensitive, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland
Caulanthus californicus	California jewelflower	Dicots	PDBRA31010	63	1	Endangered	Endangered	G1	S1	1B.1	null	Chenopod scrub, Pinon & juniper woodlands, Valley & foothill grassland
Pseudobahia peirsonii	San Joaquin adobe sunburst	Dicots	PDAST7P030	47	1	Threatened	Endangered	G1	S1	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Cismontane woodland, Valley & foothill grassland
Vulpes macrotis mutica	San Joaquin kit fox	Mammals	AMAJA03041	981	4	Endangered	Threatened	G4T2	S2	null	null	Chenopod scrub, Valley & foothill grassland



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Taxonomic GroupAND (Federal Listing StatusAND Quad

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Buteo swainsoni</i> Swainson's hawk	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	270 275	2425 S:4	0	2	1	0	0	1	1	3	4	0	0
<i>Caulanthus californicus</i> California jewelflower	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1	285 285	63 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Pseudobahia peirsonii</i> San Joaquin adobe sunburst	G1 S1	Threatened Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden		47 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	G4T2 S2	Endangered Threatened		275 300	981 S:4	0	0	0	0	0	4	4	0	4	0	0



LIVE OAK ASSOCIATES, INC.

an Ecological Consulting Firm

BIOTIC EVALUATION DERREL'S MINI STORAGE TULARE COUNTY, CALIFORNIA

Prepared by

LIVE OAK ASSOCIATES, INC.

David J. Hartesveldt (Principal, Senior Biologist)

Prepared for:

Derrel's Mini Storage, Inc.
Attention: Paul Ridenour
3265 West Ashlan Avenue
Fresno, CA 93722

September 11, 2014

File No. 1892-01

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EXECUTIVE SUMMARY

Live Oak Associates, Inc. conducted a biological study of 19.3-acre parcel in Tulare County, California that is the proposed site of a Derrel's Mini Storage facility in order to assess the possible impact from the construction of such a facility on biological resources. The Project Site is located immediately north of Caldwell Avenue and west of Roeben Road near the southwest corner of Visalia.

The entire project site was devoted to the production of corn at the time of the field survey conducted on August 20, 2014. A review of satellite imagery suggests that this site has been used for irrigated agriculture for many years going back to at least 1998. Given that the entire site is in irrigated agriculture, habitats once native to the San Joaquin Valley are no longer present on the site. Similarly, native vascular plants are absent. Terrestrial vertebrate species occurring on the site are those that are adapted annual disturbance associated with irrigated agriculture. Special status plant and animal species are absent. Waters of the United States, including wetlands, are also absent from the site.

The project will not result in significant impact to any biological resources, and mitigation measures that would reduce impacts have not been proposed, nor would any measures be warranted.

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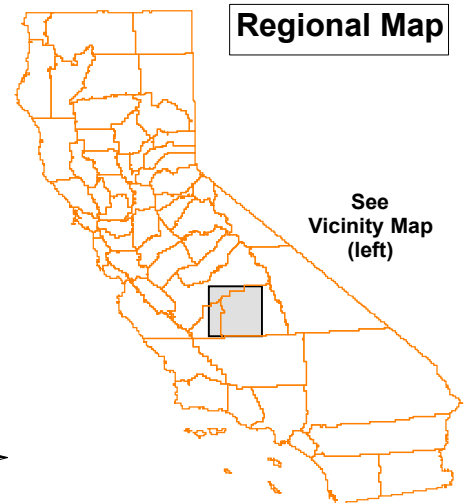
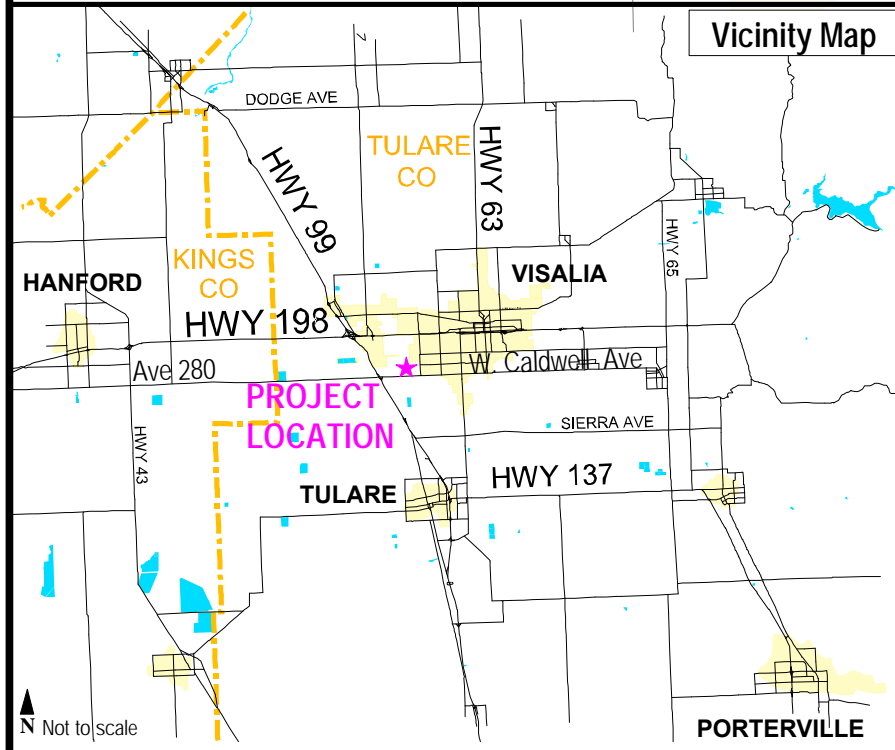
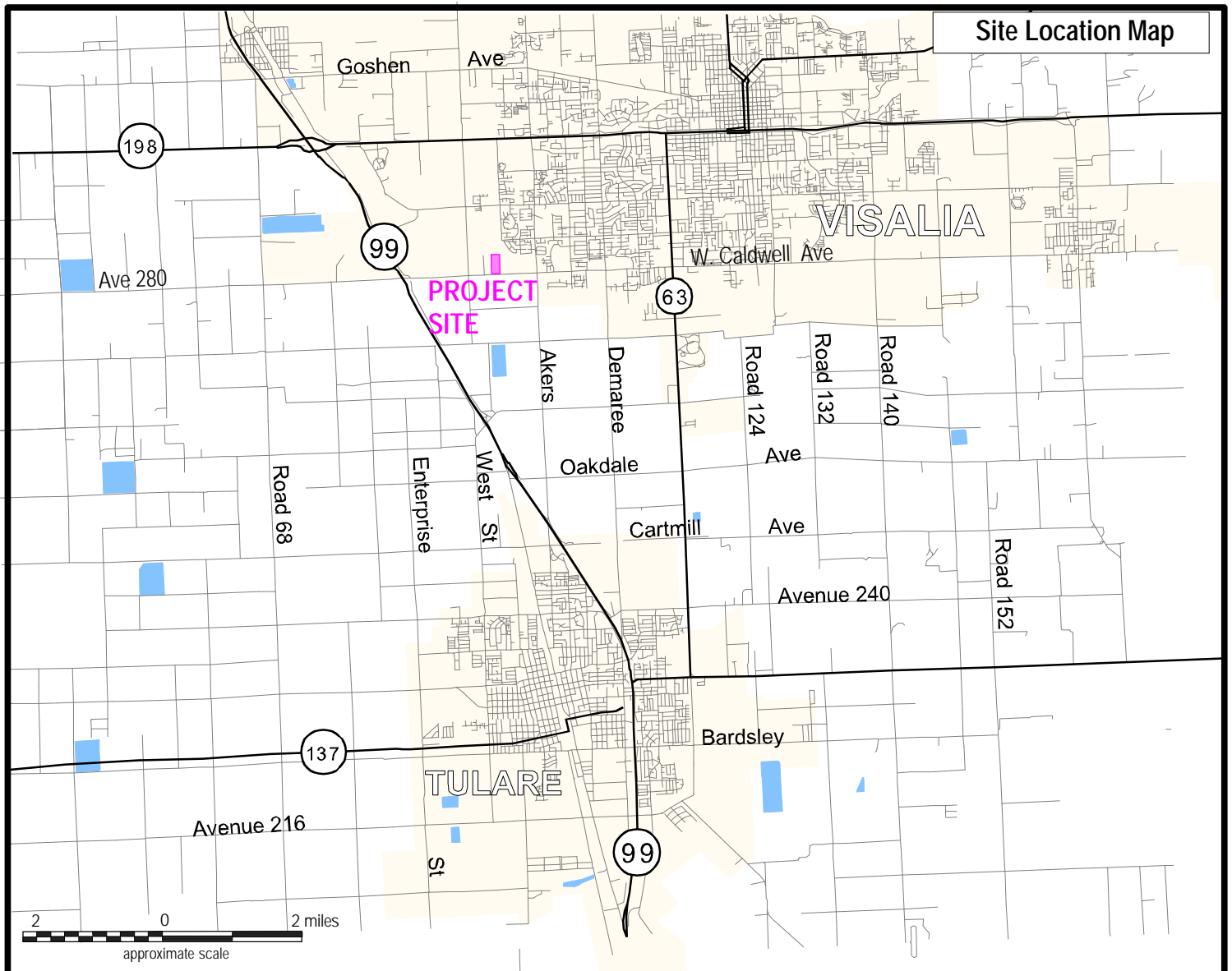
1.0 INTRODUCTION

This report describes the biotic resources of the approximately 19.3-acre parcel (APN 119-230-007) in Tulare County, California, proposed for a Derrel's Mini Storage, and assesses potential impact to those resources from the construction of a mini storage facility. Specifically, this report describes the biotic habitats of the Project Site, evaluates the suitability of each habitat for special status plant and animal species, identifies potentially significant impacts to sensitive biotic resources resulting from the proposed project and, where appropriate, proposes measures that if implemented would mitigate those impacts to a less than significant level.

The Project Site can be found in agricultural lands of the San Joaquin Valley just outside the city limits of Visalia, California (Figure 1). Caldwell Avenue (also known as County Road J30 and Avenue 280) forms the site's southern boundary. Roeben Road forms its eastern boundary. The site can be found on the U.S.G.S. 7.5-minute Visalia Quadrangle, Section 3, Township 19 South, Range 24 East, Mount Diablo Base and Meridian.

The proposed Project evaluated in this report is the construction of a Derrel's Mini Storage facility on the 19.3-acre parcel. The project would convert the entire parcel from irrigated agriculture into storage units, paved parking and access lanes, an office, a residence, associated landscaping, and an onsite stormwater retention basin. Upon project completion existing land uses described later in this report would no longer prevail.

The conversion of agricultural lands to the type of development proposed for the Project Site has the potential to damage or modify biological resources such as sensitive biotic habitats and the plant and wildlife species using them. In such cases, site development may be regulated by state or federal agencies, subject to provisions of the California Environmental Quality Act (CEQA) and/or the National Environmental Policy Act, and covered by policies of the County General Plan. This report addresses the issues often raised by the California Department of Fish and Wildlife (CDFW), the U.S. Army Corps of Engineers (USACE), and the United States Fish and Wildlife Service (USFWS) with respect to the development of agricultural lands, as well as other issues related to sensitive biotic resources occurring or potentially occurring on the Project Site. Accordingly, this report describes the existing environmental conditions of the site, assesses likely project impacts to biological resources, and proposes mitigation measures for those impacts meeting the CEQA definition of "significant."



Live Oak Associates, Inc.

Darrel's Mini Storage
Site / Vicinity Map

Date
8/26/2014

Project #
1892-01

Figure #

Therefore, the objectives of this report are as follows:

- To summarize all site-specific information related to existing biological resources;
- To make reasonable inferences about the biological resources that could occur on site 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 possible future site development;
- Identify and discuss project impacts to biological resources likely to occur on the site;
- Identify avoidance and other mitigation measures that would reduce any significant impact to biological resources of the study area to a less than significant level.

The impact analysis and mitigation proposals found in Section 3.0 of this report have been based on the known and potential biotic resources of the study area as discussed in Section 2.0. Sources of information used in the preparation of this analysis include: (1) the *California Natural Diversity Data Base* (CDFG 2014); (2) the *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2014); and (3) other available planning documents and biological studies from the general project vicinity. David Hartesveldt, senior biologist and president of Live Oak Associates, Inc. (LOA) conducted a field examination of the project site on August 20, 2014.

2.0 EXISTING CONDITIONS

The 19.3-acre Project Site is located in agricultural lands of the San Joaquin Valley immediately southwest of Visalia, California. The site comprises level land used for flood irrigated agriculture. The elevation of the site is approximately 300 feet NGVD.

Two soil mapping units have been identified on the Project Site, Akers-Akers, saline-sodic, complex, 0 to 2 percent slopes and Tagus Loam, 0 to 2 percent slopes (NRCS 2014). Both soil types consist of alluvium derived from granitic rock sources. These are well drained soils with moderate permeability. Flooding is rare. These soils are typically used for irrigated agriculture.

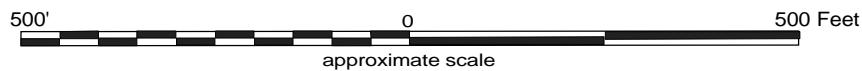
Like most of California, the Project Site is located in an area having a Mediterranean climate. Warm to hot dry summers are followed by cool moist winters. Annual precipitation within the study area is about 12 inches, almost all of which falls between the months of October and March. Virtually all precipitation falls in the form of rain.

Lands surrounding the site are those historically used for agriculture. At the time of the site visit, lands to the north of the Project Site were in irrigated agriculture (corn). Lands to the south and west of the site were recently-planted orchards. A park with a stormwater detention basin was located to the northeast of the site. Rural residential parcels were located immediately to the east of the site. These parcels included homes and some landscaping consisting of non-native trees and shrubs. Species observed in the residential landscaping immediately east of the site included sweet gum (*Liquidamber styraciflua*), Modesto ash (*Fraxinus velutina*), camphor trees (*Cinnamomum camphora*), bottle brush (*Callistemon* sp.), and English walnut (*Juglans regia*). Vascular plants native to the San Joaquin Valley were absent from these lands.

The Project Site has historically been used for irrigated agriculture.

2.1 LANDUSE TYPES/BIOTIC HABITATS

One land use type, irrigated agriculture, was observed on the site at the time of the field survey (Figure 2). The entire parcel was planted to corn (*Zea mays*). Weedy vegetation often associated with irrigated agriculture was limited to Johnson grass (*Sorghum halepense*) and barnyard grass (*Echinochloa crus-galli*). The margins of the corn field (i.e., land between the



Aerial Photo courtesy of:
Google Earth 2/20/2014



Live Oak Associates, Inc.

Darrel's Mini Storage
Aerial Photograph

Date	Project #	Figure #
8/26/2014	1892-01	2

cornfield and Caldwell Avenue and Roeben Road) were generally barren of vegetation, however, scattered patches of puncture vine (*Tribulus terrestris*), Bermuda grass (*Cynodon dactylon*), and prostrate knotweed (*Polygonum aviculare*) were observed. Vascular plant species native to California's San Joaquin Valley were absent from the Project Site. A list of vascular plants identified on the site has been provided in Appendix A.

Wildlife use of the site would be limited to species tolerant of significant land disturbance associated with the planting and harvesting of irrigated crops. During the growing season, the cornfield provides roosting opportunities house finches (*Carpodacus mexicana*), scrub jays (*Aphelocoma californica*), and Brewer's blackbirds (*Euphagus cyanocephalus*). American crows (*Corvus brachyrhynchos*) may forage in the field when the ears of corn are ripening. Other species observed on and immediately adjacent to the site include Eurasian collared doves (*Streptopelia decaocto*), killdeer (*Charadrius vociferous*), and a red-shouldered hawk (*Buteo lineatus*). Small mammals such as house mice (*Mus musculus*), deer mice (*Peromyscus maniculatus*), and Botta's pocket gophers (*Thomomys bottae*) may use the Project Site when it is fallow (September through April). A list of terrestrial vertebrates using, or potentially using the Project site has been provided in Appendix B.

2.2 SPECIAL STATUS PLANTS AND ANIMALS

Several species of plants and animals within the state of California have low populations, limited distributions, or both. 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 CDFW and the 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 2014). Collectively, these plants and animals are referred to as "special status species".

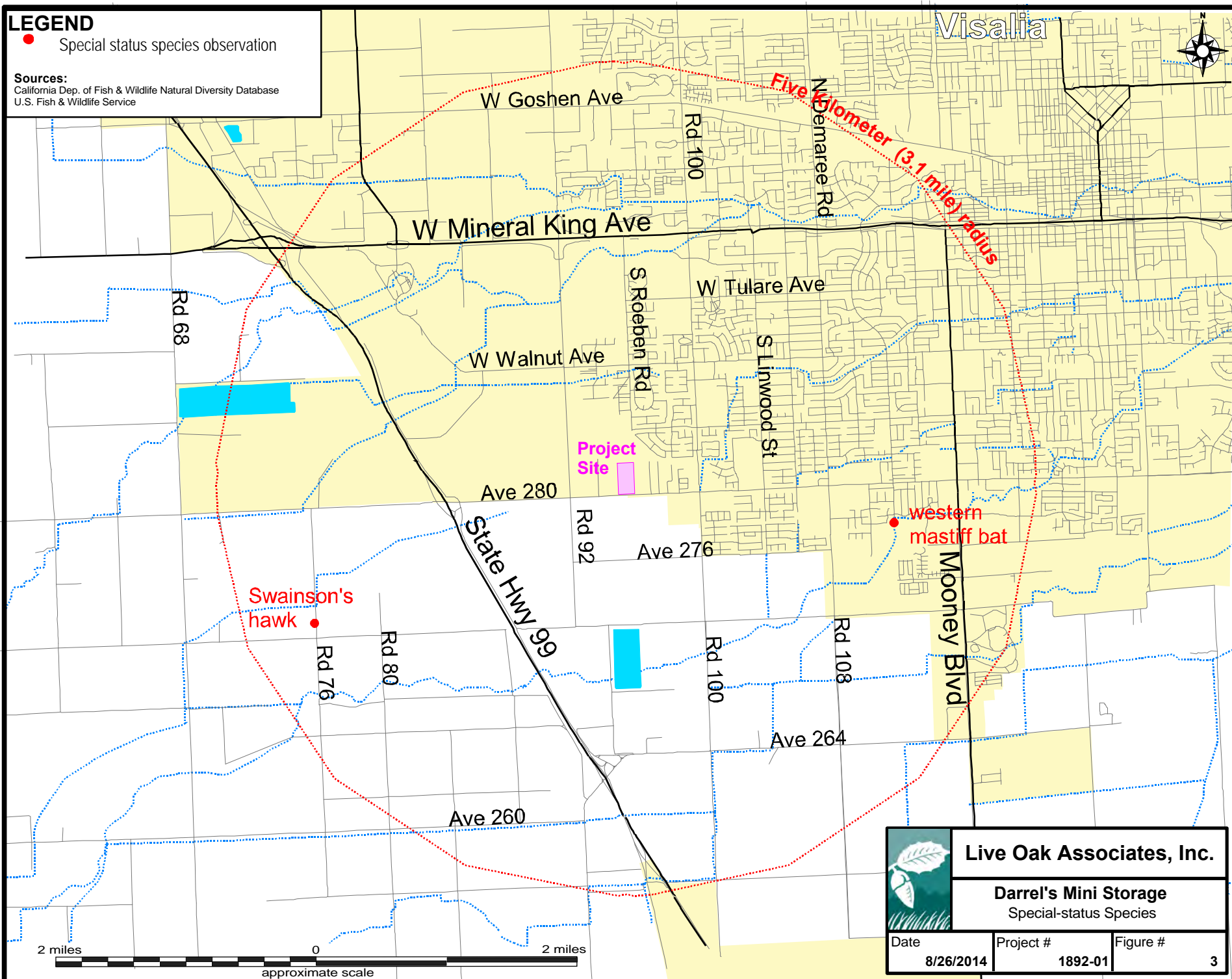
A number of special status plants and animals occur in the vicinity of the study area. These species, and their potential to occur in the study area, are listed in Table 1. The locations of nearby sightings of special status species have been shown in Figures 3 and 4. Sources of information for this table included *California's Wildlife, Volumes I, II, and III* (Zeiner et. al 1988 and 1990), *California Natural Diversity Data Base* (CDFW 2014), *Sacramento USFWS Office On-line List of Endangered Species* (USFWS 2014), California eBird (a real-time on-line bird checklist program), *The Online CNPS Inventory of Rare and Endangered Plants* (CNPS 2014), and various technical reports prepared by LOA for other projects in the vicinity of Visalia.

LEGEND

● Special status species observation

Sources:

California Dep. of Fish & Wildlife Natural Diversity Database
U.S. Fish & Wildlife Service



Live Oak Associates, Inc.

Darrel's Mini Storage

Special-status Species

Date

8/26/2014


Project #

1892-01

Figure #

3

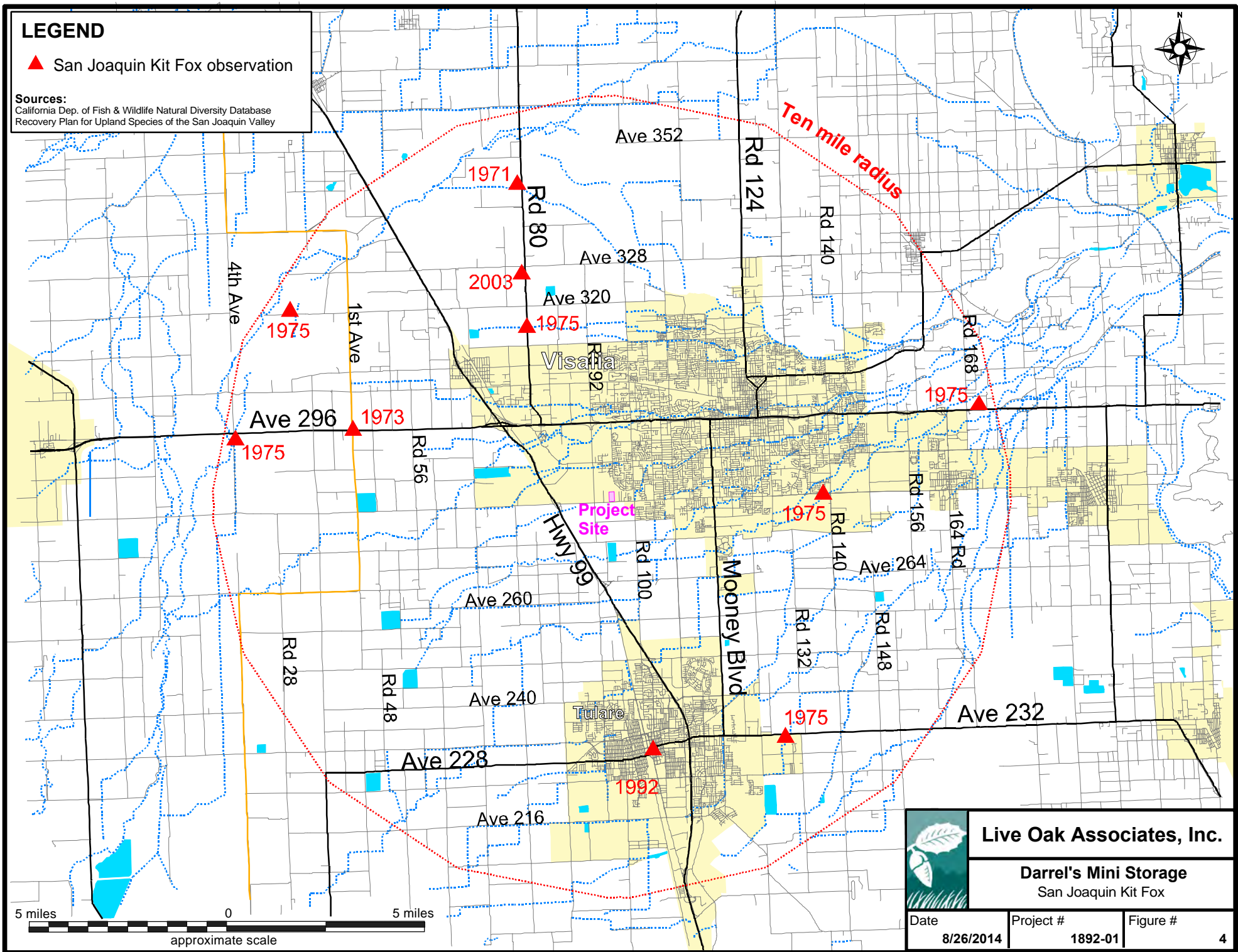
LEGEND

 San Joaquin Kit Fox observation

Sources:
California Dep. of Fish & Wildlife Natural Diversity Database
Recovery Plan for Upland Species of the San Joaquin Valley

▲ San Joaquin Kit Fox observation

Sources:
California Dep. of Fish & Wildlife Natural Diversity Database
Recovery Plan for Upland Species of the San Joaquin Valley



Live Oak Associates, Inc.

Darrel's Mini Storage
San Joaquin Kit Fox

Date

8/26/2014

Project #	Project Name	Project Manager	Project Status	Project Start Date	Project End Date	Project Budget	Project Actual Cost	Project Variance	Project Risk	Project Quality	Project Customer Satisfaction
1	Project A	John Doe	Completed	2023-01-01	2023-03-31	\$100,000	\$95,000	\$5,000	Low	High	95%
2	Project B	Jane Smith	In Progress	2023-04-01	2023-06-30	\$200,000	\$180,000	\$20,000	Medium	Medium	85%
3	Project C	Mike Johnson	On Hold	2023-07-01	2023-09-30	\$150,000	\$150,000	\$0	High	Low	70%
4	Project D	Sarah Brown	Completed	2023-10-01	2023-12-31	\$80,000	\$82,000	-\$2,000	Low	High	90%
5	Project E	David Wilson	In Progress	2024-01-01	2024-03-31	\$120,000	\$110,000	\$10,000	Medium	Medium	80%

1892-01

Figure #

4

TABLE 1. SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE VICINITY OF THE DERREL'S MINI STORAGE PROJECT SITE, TULARE COUNTY, CA.

PLANTS (adapted from CDFW 2014 and CNPS 2014)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence in the Study Area
Succulent Owl's Clover (<i>Castilleja campestris</i> ssp. <i>succulenta</i>)	FT, CE CNPS 1B	Vernal pools California's Central Valley.	Absent. Vernal pool habitats required by this species are absent from the Project Site.
Striped Adobe-lily (<i>Fritillaria striata</i>)	CE CNPS 1B	Cismontane woodland, valley and foothill grassland, in heavy clay soils of Centerville and Porterville Series.	Absent. Centerville clay soils are absent from the Project Site, and native habitat that may have historically been present has been replaced by irrigated agriculture. Native plant species of any kind appear to have been extirpated from the site.
San Joaquin Valley Orcutt Grass (<i>Orcuttia inaequalis</i>)	FT, CE CNPS 1B	Vernal pools in California's Central Valley. Requires deep pools with prolonged periods of inundation.	Absent. Vernal pool habitats required by this species are absent from the Project Site.
San Joaquin Adobe Sunburst (<i>Pseudobahia peirsonii</i>)	FT, CE	Occurs in Centerville and Porterville heavy clay soils in valley and foothill grassland habitat.	Absent. Centerville clay soils are absent from the Project Site, and native habitat that may have historically been present has been replaced by irrigated agriculture. Native plant species of any kind appear to have been extirpated from the site.
Keck's Checkerbloom (<i>Sidalcea keckii</i>)	FE CNPS 1B	Mixed oak woodland and non-native grassland of southern Sierra foothills.	Absent. Centerville clay soils are absent from the Project Site, and native habitat that may have historically been present has been replaced by irrigated agriculture. Native plant species of any kind appear to have been extirpated from the site.
Greene's Tuctoria (<i>Tuctoria greenei</i>)	FE, CR CNPS 1B	Vernal pools in California's Central Valley. Requires deep pools with prolonged periods of inundation.	Absent. Vernal pool habitats required by this species are absent from the Project Site.

CNPS-listed Species

Madera Leptosiphon (<i>Leptosiphon serrulatus</i>)	CNPS 1B	Cismontane woodland and annual grasslands on dry slopes, often on decomposed granite.	Absent. Native habitat that may have historically been present has been replaced by irrigated agriculture. Native plant species of any kind appear to have been extirpated from the site.
Calico Monkeyflower (<i>Mimulus pictus</i>)	CNPS 1B	Broadleaf upland forest, cismontane woodlands, in bare ground around gooseberry bushes on or around granite rock outcrops.	Absent. Habitats of the Project Site are not suitable for this species.

TABLE 1. SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE VICINITY OF THE DERREL'S MINI STORAGE PROJECT SITE, TULARE COUNTY, CA.

PLANTS (adapted from CDFW 2014 and CNPS 2014)

Species	Status	Habitat	*Occurrence in the Study Area
Spiny-sepaed Button Celery (<i>Eryngium spinosepalum</i>)	CNPS 1B	Vernal pools of Madera, Fresno, and Tulare Counties.	Absent. Vernal pool and vernal swale habitats required by this species are absent from the Project Site.

ANIMALS (adapted from CDFW 2014)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Vernal Pool Fairy Shrimp (<i>Branchinecta lynchi</i>)	FT	Primarily found in vernal pools; may use other seasonal wetlands.	Absent. Vernal pool habitat required by this species is absent from the Project Site.
Vernal Pool Tadpole Shrimp (<i>Lepidurus packardii</i>)	FE	Primarily found in deep vernal pools; may use other seasonal wetlands.	Absent. Vernal pool habitat required by this species is absent from the Project Site.
Valley Elderberry Longhorn Beetle (<i>Desmocerus californicus dimorphus</i>)	FT	Lives in mature elderberry shrubs of California's Central Valley and Sierra Foothills. This species has been documented in elderberry shrubs found in various locations in and around Visalia (CDFW 2014).	Absent. The primary host plant required by this species, the Mexican elder, is absent from the Project Site.
California Tiger Salamander (<i>Ambystoma californiense</i>)	FT, CT	Breeds in vernal pools and stock ponds of coastal California and California's Central Valley, and oversummers underground in rodent burrows.	Absent. Breeding and oversummering habitat are absent from the Project Site.
California Condor (<i>Gymnogyps californianus</i>)	FE, CE	Nests on rocky cliffs and forages over vast areas of grassland. Blue Ridge in the Sierra, which is about 30 miles to the east of the Project Site, has historically served as a roost site (CDFW 2014).	Absent. Suitable foraging habitat is absent from the Project Site.
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	CE	Ranges widely over state, most often associated with seacoast, lakes and reservoirs.	Absent. The site provides neither foraging nor nesting habitat for this species.
American Peregrine Falcon (<i>Falco peregrinus anatum</i>)	CE	Individuals breed on cliffs in the Sierra or in coastal habitats; occurs in many habitats of the state during migration and winter.	Possible. Individuals may pass over the site from time to time during migration.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FT, CE	Annual grasslands and alkali sink scrub of California's southern Central Valley and Inner Coast Range.	Absent. The site provides neither denning or foraging habitat for this species.

TABLE 1. SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE VICINITY OF THE DERREL'S MINI STORAGE PROJECT SITE, TUALRE COUNTY, CA.

ANIMALS (adapted from CDFW 2014)

California Species of Special Concern (cont.)

Species	Status	Habitat	*Occurrence in the Study Area
Foothill Yellow-legged Frog (<i>Rana boylei</i>)	CSC	Once widespread in fast-moving rivers and creeks of the Sierra foothills with cobble bottoms; historically occurred in nearby Mill Creek, but now nearly extirpated from the Sierra foothills.	Absent. Habitat in which this species occurs is absent from the study area.
California Horned Lizard (<i>Phrynosoma coronatum</i>)	CSC	Grasslands, scrublands, oak woodlands, etc. of central California. Common in sandy washes with scattered shrubs.	Absent. The Project Site provides unsuitable habitat for this species. Undisturbed sandy friable soils are absent from the Project Site.
Northern Harrier (<i>Circus cyaneus</i>)	CSC	Frequents meadows, grasslands, open rangelands, freshwater emergent wetlands; uncommon in wooded habitats.	Absent. The site provides neither foraging nor nesting habitat for this species. .
Golden Eagle (<i>Aquila chrysaetos</i>)	CSC	Open grasslands, oak savannahs agricultural fields, etc. of San Joaquin Valley and nearby foothills of Inner Coast Range.	Absent. The site provides neither foraging nor nesting habitat for this species. .
Burrowing Owl (<i>Athene cunicularia</i>)	CSC	Found in open, dry grasslands, deserts and ruderal areas. Requires suitable burrows.	Absent. Ground squirrel burrows were absent from the site, and ground squirrels would not inhabit the site due to its use for irrigated agriculture.
Long-eared Owl (<i>Asio otus</i>)	CSC	Occurs in riparian woodlands and forests of the state. Nests in abandoned crow, raven, magpie, or hawk nests. Forages over marshes and grasslands.	Absent. Habitat suitable for long-eared owls is absent from the Project Site.
Loggerhead Shrike (<i>Lanius ludovicianus</i>)	CSC	This species is found in open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches	Unlikely. The site may provide suitable foraging habitat for this species when the cornfield is fallow.
Vaux's Swift (<i>Chaetura vauxi</i>)	CSC	Migrants move through the foothills of the western Sierra in spring and late summer. Some individuals breed in region.	Unlikely. This species may fly over the site during migration.
Black Swift (<i>Cypseloides niger</i>)	CSC	Migrants and transients found throughout many habitats of state; in Sierra nests are usually associated with waterfalls from 4,000-7,000 ft.	Unlikely. This species may fly over the site during migration.
Yellow Warbler (<i>Dendroica petechia brewsteri</i>)	CSC	This species breeds in riparian thickets of alder, willow and cottonwoods. Migrants move through many habitats of the state.	Unlikely. This species may fly over the site during migration.
Spotted Bat (<i>Euderma maculatum</i>)	CSC	Found in a variety of habitats from arid desert and grassland to mixed conifer forest. Feeds over water. Roosts and reproduces in rock crevices and cliffs.	Absent. This species would more likely forage over the Sierra foothills to the east than the Project Site.

TABLE 1. SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE VICINITY OF THE DERREL'S MINI STORAGE PROJECT SITE, TULARE COUNTY, CA.

ANIMALS (adapted from CDFW 2014)

California Species of Special Concern (cont.)

Species	Status	Habitat	*Occurrence in the Study Area
Townsend's Western Big-eared Bat (<i>Corynorhinus townsendii townsendii</i>)	CSC	Primarily a cave-dwelling bat, which may also roost in buildings. Occurs in a variety of habitats.	Unlikely. This species may forage over the site. Roosting habitat is absent.
Western Mastiff Bat (<i>Eumops perotis</i>)	CSC	Frequents grasslands to woodland habitats along the central and southern coast and the Central Valley; requires high buildings, cliff faces, caves or tunnels for roosting and nesting.	Unlikely. This species may forage over the site. Roosting habitat is absent.
Pallid Bat (<i>Antrozous pallidus</i>)	CSC	Grasslands, chaparral, woodlands, and forests of California; most common in dry rocky open areas providing roosting opportunities. May also use hollow trees for roosting.	Unlikely. This species may forage over the site. Roosting habitat is absent.
American Badger (<i>Taxidea taxus</i>)	CSC	In the San Joaquin Valley this species inhabits non-native grassland with friable soil.	Absent. The Project Site provides no possible habitat for this species.

*Present: Species observed on the study area at time of field surveys or during recent past.

Likely: Species not observed on the study area, but it may reasonably be expected to occur there on a regular basis.

Possible: Species not observed on the study area, but it could occur there from time to time.

Unlikely: Species not observed on the study area, and would not be expected to occur there except, perhaps, as a transient.

Absent: Species not observed on the study area, and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE Federally Endangered
FT Federally Threatened
FPE Federally Endangered (Proposed)
FC Federal Candidate

CE California Endangered
CT California Threatened
CR California Rare
CSC California Species of Special Concern
CNPS California Native Plant Society Listing

2.3 JURISDICTIONAL WATERS

Jurisdictional waters include rivers, creeks, and drainages with a defined bed and bank that may carry at most ephemeral flows, lakes, ponds, reservoirs, and wetlands. Such waters may be subject to the regulatory authority of the USACE, the CDFW and the California Regional Water Quality Control Board (RWQCB) (see Section 3.2.4 of this report for additional information).

Waters of the United States have been defined in the Code of Federal Regulations (33 CFR, Section 128), but these definitions have been modified by the U.S Supreme Court decision *Solid*

Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC Decision) in 2001 and the combined *Rapanos/Carabell Decision* in 2007. Prior to this decision, the USACE claimed as jurisdictional isolated wetlands and other waters on the basis that such wetlands provided habitat for migratory birds. The Supreme Court ruled in the SWANCC decision that migratory bird use of isolated drainages and wetlands could no longer be used to establish federal jurisdiction over such areas. The Supreme Court ruled in 2007 in the *Rapanos/Carabell* decision that wetlands may be waters of the United States if a significant nexus between those wetlands and any downstream waters of the United States can be demonstrated to exist. The discharge of fill into waters of the United States requires a permit from the USACE per the provisions of Section 404 of the Clean Water Act.

The RWQCB has claimed jurisdiction over all surface waters in the state of California. The RWQCB has the authority to develop water quality standards for these waters and evaluate project compliance with those standards per provisions of the Porter-Cologne Water Quality Control Act. The USACE cannot issue any Clean Water Act permit unless the RWQCB has determined that the proposed action to be covered by the permit meets state water quality standards. The RWQCB also has permit authority over isolated waters that are not considered waters of the United States.

The CDFW regulates activities within the bed and bank of natural drainage channels that may alter the channels in ways harmful to fish and wildlife. This regulatory authority derives from provisions of Section 1602 of the California Fish and Game code. Projects altering a natural drainage channel require that an applicant enter into a Streambed Alteration Agreement with the CDFW.

Jurisdictional waters in the form of creeks, ponds, wetlands, and other surface hydrologic features are entirely absent from the Project Site.

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, 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 Threatened and Endangered Species

State and federal “endangered species” legislation has provided the CDFW and the USFWS with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal endangered species acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as “species of special status.” Permits may be required from both the CDFW and USFWS if activities associated with a proposed project will result in the “take” of a listed species. “Take” is defined by the state of California as “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill” (California Fish and Game Code, Section

86). “Take” is more broadly defined by the federal Endangered Species Act to include “harm” (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFW and the USFWS are responding agencies under CEQA. Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

3.2.2 Migratory Birds

State and federal laws also protect most birds. The Federal Migratory Bird Treaty Act (16 U.S.C., sec. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

3.2.3 Birds of Prey

Birds of prey are also protected in California under provisions of the State 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.

3.2.4 Wetlands and Other Jurisdictional Waters

Natural drainage channels and adjacent wetlands may be considered “Waters of the United States” (hereafter referred to as “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 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 jurisdictional waters 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 fill into jurisdictional waters 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 certification (or waiver of such certification) that the proposed activity will meet state water quality standards.

The filling of isolated wetlands, over which the USACE has disclaimed jurisdiction, is regulated by the RWQCB. It is unlawful to fill isolated wetlands without filing a Notice of Intent with the RWQCB. The RWQCB is also responsible for enforcing National Pollution Discharge Elimination System (NPDES) permits, including the General Construction Activity Storm Water Permit. All projects requiring federal money must also comply with Executive Order 11990 (Protection of Wetlands).

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 (2003). Activities that would disturb these waters are regulated by the CDFW via a Streambed Alteration Agreement. Such an agreement typically stipulates that certain measures will be implemented which protect the habitat values of the drainage in question.

3.2.5 Oak Woodlands

Oak protection legislation (SB 1334) signed by Governor Schwarzenegger in January of 2005 establishes that the conversion of oak woodlands within county jurisdictions of the state be subject to CEQA review, and that significant impact to oak woodlands be mitigated. Fresno County defines oak woodland as a tree habitat with 5 or more oak trees per acre. “Conversion” has been defined as the cutting or removing of 30 percent or more of the canopy from oak woodland, and changing the land use such that the converted acreage could no longer sustain oak woodland in the future.

3.3 POTENTIAL IMPACTS TO BIOLOGICAL RESOURCES FROM PROPOSED ACTION

As described in Section 1.0 of this report, the proposed action is the construction of a mini storage facility on the 19.3-acre Project Site. The entire site will be converted from irrigated agriculture into storage units, paved parking and access lanes, an office, a residence, and associated landscaping. Upon project completion existing land uses described in this report would no longer occur.

3.3.1 Potentially Significant Project Impacts

Potentially significant project impact to biological resources is not expected from the proposed project.

3.3.2 Less than Significant Project Impacts

All project impacts to biological resources are expected to be less than significant. Less than significant impacts to biological resources are discussed in detail below:

3.3.2.1 Project Impacts to Special Status Plant Species

Impact Discussion

Special status plant species would not occur on the project site. Native habitats that may have once supported such species no longer occur within the project site. The entire site is now devoted to summer-irrigated corn, rendering the entire site unsuitable for native plant species adapted to summer drought. Therefore, the proposed project will have no effect on special status plant species.

Mitigation Measures. The proposed action will have no adverse effect on special status plant species. Mitigation measures are not warranted.

3.3.2.2 Project Impact to Special Status Animal Species

Impact Discussion

Most special status animal species occurring regionally would not occur on the site. Others may pass through or fly over the site during migration or routine home range movements, but would not rely on the site as foraging or breeding habitat. The site is too disturbed from irrigated agriculture to provide habitat of any value to animal species of special status. Therefore, the proposed project will have no effect on special status animal species.

Mitigation Measures. The proposed action will have no adverse effect on special status animal species. Mitigation measures are not warranted.

3.3.2.3 Project Impact to Riparian Habitat or other Sensitive Natural Communities

Impact Discussion

Sensitive Natural Communities, including riparian habitat and other types of wetlands, are absent from the project site. Therefore, the proposed project will have no effect on Sensitive Natural Communities.

Mitigation Measures. The proposed action will have no adverse effect on riparian habitat or other Sensitive Natural Communities. Mitigation measures are not warranted.

3.3.2.4 Project Impact to Federally Protected Wetlands as Defined by Section 404 of the Clean Water Act

Impact Discussion

Federally protected wetlands, and other Waters of the United States as defined by Section 404 of the Clean Water Act, are absent from the Project Site. Therefore, the proposed project will have no effect on such waters.

Mitigation Measures. The proposed action will have no adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act or other waters of the United States. Mitigation measures are not warranted.

3.3.2.5 Project Impact to Wildlife Movement Corridors and Wildlife Habitat

Impact Discussion

Absent habitats from the site that were once native to the San Joaquin Valley, and absent areas of significant native habitat important to native wildlife species in the general site vicinity, use of the Project Site as a “movement corridor” by native wildlife is not likely. Wildlife movement corridors in the San Joaquin Valley are more typically associated with natural drainages (rivers and creeks) having significant riparian vegetation along the channel banks. Alternatively, wildlife movement corridors may link important habitat patches of similar values for similar assemblages of species. The Project Site fits neither criterion. Therefore, the proposed project will have no effect on wildlife movement corridors and wildlife habitat.

Mitigation Measures. The proposed action will have no adverse effect on wildlife movement corridors and wildlife habitat. Mitigation measures are not warranted.

3.3.2.6 Will the Project Conflict with any Local Policies or Ordinances Protecting Biological Resources, such as a Tree Preservation Policy or Ordinance

Impact Discussion

Biological resources of the Project Site are limited to a small number of terrestrial vertebrate species adapted to the annual disturbance associated with irrigated agriculture. There are no known local policies or ordinances that would offer protection to irrigated agriculture or the

kinds of species utilizing irrigated agriculture. The proposed project, therefore, would be consistent with local policies or ordinances protecting biological resources.

Mitigation Measures. The proposed action is consistent with the policies found in the Environmental Resources Element of the Tulare County General Plan that are relevant to natural resource protection (i.e., ERM-1.1 through ERM-1.17). Additional mitigation measures protecting biological resources are not warranted.

3.3.2.7 Degradation of Water Quality in Seasonal Creeks, Reservoirs and Downstream Waters

Impact Discussion

Natural water bodies such as rivers, seasonal creeks, and ponds are absent from the Project Site. The nearest natural creek to the Project site is Packwood Creek, which passes through agricultural lands approximately 1.3 miles to the south of the Project Site. The project will be designed to contain all on-site stormwater runoff by directing such runoff to an onsite stormwater retention basin, thus ensuring that runoff generated from the hardscape associated with the project will not enter natural drainages off-site. Therefore, the proposed project will result in a less than significant adverse effect on water quality in seasonal creeks, reservoirs and downstream waters.

Mitigation Measures. The proposed action will have a less than significant adverse effect on water quality in seasonal creeks, reservoirs and downstream waters. Mitigation measures are not warranted.

3.3.2.8 Loss of Oak Woodlands

Impact Discussion

Oak woodlands do not occur within the Project Site. The proposed project will have no impact on oak woodlands.

Mitigation Measures

The proposed action will have no adverse effect on oak woodlands. Mitigation measures are not warranted.

3.3.2.9 Project Impact on Nesting Birds

Impact Discussion

The Project Site provides little to no nesting habitat for native birds. Trees and shrubs suitable as nesting habitat for many bird species are absent from the Project Site. Because the site is intensively farmed every year (as evidenced by a review of aerial photography going back to 1998), ground-nesting birds would have no opportunity to nest on the site. The proposed project would have a less than significant adverse effect on nesting birds.

Mitigation Measures. The proposed action will have no significant adverse effect on nesting birds. Mitigation measures are not warranted.

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September 11, 2014

APPENDIX A: VASCULAR PLANTS OF THE STUDY AREA

APPENDIX A VASCULAR PLANTS OF THE STUDY AREA

The plant species listed below have been observed within or adjacent to the study area during site surveys conducted by David Hartesveldt of Live Oak Associates, Inc., on April 2, 2009 and August 20, 2014. The U.S. Fish and Wildlife Service wetland indicator status for each plant has been shown following the common name of the plant species.

OBL - Obligate
FACW - Facultative Wetland
FAC - Facultative
FACU - Facultative Upland
UPL - Upland
 +/- - Higher/lower end of category
NR - No review
NA - No agreement
NI - No investigation

AMARANTHACEAE – Amaranth Family

<i>Amaranthus blitoides</i>	Prostate Pigweed	FACW
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CHENOPODIACEAE – Goosefoot Family

<i>Salsola tragus</i>	Russian Thistle	FACU
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POACEAE – Grass Family

<i>Cynodon dactylon</i>	Bermuda Grass	FAC
<i>Echinochloa crus-galli</i>	Barnyard Grass	FACW
<i>Sorghum halepense</i>	Johnson Grass	FACU
<i>Zea mays</i>	Corn	UPL

POLYGONACEAE – Knotweed Family

<i>Polygonum aviculare</i>	Prostrate Knotweed	FAC
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ZYGOPHYLLACEAE – Caltrop Family

<i>Tribulus terrestris</i>	Puncture Vine	UPL
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September 11, 2014

**APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES POTENTIALLY
OCCURRING ON THE STUDY AREA**

APPENDIX B
TERRESTRIAL VERTEBRATE SPECIES POTENTIALLY OCCURRING
ON THE STUDY AREA

The species listed below are those that may reasonably be expected to use the habitats of the study area. The list was not intended to include birds that are vagrants or occasional transients. Its purpose was rather to include those species that may be expected to routinely and predictably use the planning area during some or all of the year. An asterisk denotes a species observed within or adjacent to the study area during surveys conducted on April 2, 2009 and July 23, 2014.

CLASS: AMPHIBIA (Amphibians)

ORDER: ANURA (Frogs and Toads)

FAMILY: BUFONIDAE (True Toads)

Western Toad (*Bufo boreas*)

FAMILY: HYLIDAE (Tree Frogs and Relatives)

Pacific Chorus Frog (*Pseudacris regilla*)

CLASS: REPTILIA (Reptiles)

ORDER: SQUAMATA (Lizards and Snakes)

FAMILY: COLUBRIDAE (Colubrids)

Gopher Snake (*Pituophis catenifer*)

Common Kingsnake (*Lampropeltis getula*)

Common Garter Snake (*Thamnophis sirtalis*)

CLASS: AVES (Birds)

ORDER: CICONIIFORMES (Herons, Storks, Ibises and Relatives)

FAMILY: ARDEIDAE (Herons and Bitterns)

Great Blue Heron (*Ardea herodias*)

FAMILY: CATHARTIDAE (New World Vultures)

Turkey Vulture (*Cathartes aura*)

ORDER: FALCONIFORMES (Vultures, Hawks and Falcons)

FAMILY: ACCIPITRIDAE (Hawks, Old World Vultures and Harriers)

Sharp-Shinned Hawk (*Accipiter striatus*)

Cooper's Hawk (*Accipiter cooperii*)

*Red-Shouldered Hawk (*Buteo lineatus*)

*Red-Tailed Hawk (*Buteo jamaicensis*)

Ferruginous Hawk (*Buteo regalis*)

Rough-legged Hawk (*Buteo lagopus*)

FAMILY: FALCONIDAE (Caracaras and Falcons)

American Kestrel (*Falco sparverius*)

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 Pigeon (*Columba livia*)

*Eurasian Collared Dove (*Streptopelia decaocto*)

*Mourning Dove (*Zenaida macroura*)

ORDER: STRIGIFORMES (Owls)

FAMILY: TYTONIDAE (Barn Owls)

Barn Owl (*Tyto alba*)

FAMILY: STRIGIDAE (Typical Owls)

Great Horned Owl (*Bubo virginianus*)

ORDER: APODIFORMES (Swifts and Hummingbirds)

FAMILY: APODIDAE (Swifts)

Black Swift (*Cypseloides niger*)

Vaux's Swift (*Chaetura vauxi*)

White-Throated Swift (*Aeronautes saxatalis*)

FAMILY: TROCHILIDAE (Hummingbirds)

Black-Chinned Hummingbird (*Archilochus alexandri*)

Anna's Hummingbird (*Calypte anna*)

Calliope Hummingbird (*Stellula calliope*)

Rufous Hummingbird (*Selasphorus rufus*)

Allen's Hummingbird (*Selasphorus sasin*)

ORDER: PASSERIFORMES (Perching Birds)

FAMILY: TYRANNIDAE (Tyrant Flycatchers)

Black Phoebe (*Sayornis nigricans*)

Says Pheobe (*Sayornis saya*)

Ash-Throated Flycatcher (*Myiarchus cinerascens*)

Western Kingbird (*Tyrannus verticalis*)

FAMILY: LANIIDAE (Shrikes)

Loggerhead Shrike (*Lanius ludovicianus*)

FAMILY: CORVIDAE (Jays, Magpies and Crows)

Western Scrub-Jay (*Aphelocoma californica*)

*American Crow (*Corvus brachyrhynchos*)

Common Raven (*Corvus corax*)

FAMILY: ALAUDIDAE (Horned Larks)

Horned Lark (*Eremophila alpestris*)

FAMILY: HIRUNDINIDAE (Swallows)

Tree Swallow (*Tachycineta bicolor*)

Violet-Green Swallow (*Tachycineta thalassina*)

Northern Rough-Winged Swallow (*Stelgidopteryx serripennis*)

Cliff Swallow (*Petrochelidon pyrrhonota*)

Barn Swallow (*Hirundo rustica*)

FAMILY: TROGLODYTIDAE (Wrens)

Rock Wren (*Salpinctes obsoletus*)

FAMILY: TURDIDAE (Thrushes)

Western Bluebird (*Sialia mexicana*)

Mountain Bluebird (*Sialia currucoides*)

American Robin (*Turdus migratorius*)

FAMILY: MIMIDAE (Mockingbirds and Thrashers)

Northern Mockingbird (*Mimus polyglottos*)

FAMILY: STURNIDAE (Starlings and Allies)

*European Starling (*Sturnus vulgaris*)

FAMILY: BOMBYCILLIDAE (Waxwings)

Cedar Waxwing (*Bombycilla cedrorum*)

FAMILY: PARULIDAE (Wood Warblers and Relatives)

Yellow-Rumped Warbler (*Dendroica coronata*)

FAMILY: THRAUPIDAE (Tanagers)

Western Tanager (*Piranga ludoviciana*)

FAMILY: EMBERIZIDAE (Emberizines)

California Towhee (*Pipilo crissalis*)

Rufous-Crowned Sparrow (*Aimophila ruficeps*)

Lark Sparrow (*Chondestes grammacus*)

Fox Sparrow (*Passerella iliaca*)

Song Sparrow (*Melospiza melodia*)

Savannah Sparrow (*Passerculus sandwichensis*)

White-Crowned Sparrow (*Zonotrichia leucophrys*)

Golden-Crowned Sparrow (*Zonotrichia atricapilla*)

Dark-Eyed Junco (*Junco hyemalis*)

FAMILY: CARDINALIDAE (Cardinals, Grosbeaks and Allies)

Lazuli Bunting (*Passerina amoena*)

FAMILY: ICTERIDAE (Blackbirds, Orioles and Allies)

Brewer's Blackbird (*Euphagus cyanocephalus*)

Red-winged Blackbird (*Agelaius phoeniceus*)

Tri-color Blackbird (*Agelaius tricolor*)

Brown-Headed Cowbird (*Molothrus ater*)

Western Meadowlark (*Sturna neglecta*)

FAMILY: FRINGILLIDAE (Finches)

*House Finch (*Carpodacus mexicanus*)

American Goldfinch (*Carduelis tristis*)

Lesser Goldfinch (*Carduelis psaltria*)

Lawrence's Goldfinch (*Carduelis lawrencei*)

CLASS: MAMMALIA (Mammals)

ORDER: DIDELPHIMORPHIA (Marsupials)

FAMILY: DIDELPHIDAE (Opossums)

Virginia Opossum (*Didelphis virginiana*)

FAMILY: TALPIDAE (Moles)

Broad-Footed Mole (*Scapanus latimanus*)

ORDER: CHIROPTERA (Bats)

FAMILY: VESPERTILIONIDAE (Evening Bats)

Little Brown Myotis (*Myotis lucifugus*)

Yuma Myotis (*Myotis yumanensis*)

Long-Eared Myotis (*Myotis evotis*)

Fringed Myotis (*Myotis thysanodes*)

Long-Legged Myotis (*Myotis volans*)

California Myotis (*Myotis californicus*)

Western Small-Footed Myotis (*Myotis ciliolabrum*)
Western Pipistrelle (*Pipistrellus hesperus*)
Big Brown Bat (*Eptesicus fuscus*)
Western Red Bat (*Lasiurus blossevillii*)
Hoary Bat (*Lasiurus cinereus*)
Spotted Bat (*Euderma maculatum*)
Pale Big-eared Bat (*Corynorhinus townsendii pallescens*)
Townsend's Big-Eared Bat (*Corynorhinus townsendii townsendii*)
Pallid Bat (*Antrozous pallidus*)

FAMILY: MOLOSSIDAE (Free-tailed Bats)

Brazilian Free-Tailed Bat (*Tadarida brasiliensis*)
Western Mastiff Bat (*Eumops perotis*)

ORDER: LAGOMORPHA (Rabbits, Hares and Pika)

FAMILY: LEPORIDAE (Rabbits and Hares)

Desert Cottontail (*Sylvilagus audubonii*)
Black-Tailed Jackrabbit (*Lepus californicus*)

ORDER: RODENTIA (Rodents)

FAMILY: GEOMYIDAE (Pocket Gophers)

Botta's Pocket Gopher (*Thomomys bottae*)

FAMILY: HETEROMYIDAE (Pocket Mice and Kangaroo Rats)

California Pocket Mouse (*Chaetodipus californicus*)

FAMILY: MURIDAE (Mice, Rats and Voles)

Western Harvest Mouse (*Reithrodontomys megalotis*)
California Mouse (*Peromyscus californicus*)
Deer Mouse (*Peromyscus maniculatus*)
California Vole (*Microtus californicus*)
House mouse (*Mus musculus*)

ORDER: CARNIVORA (Carnivores)

FAMILY: CANIDAE (Foxes, Wolves and Relatives)

Coyote (*Canis latrans*)
Gray Fox (*Urocyon cinereoargenteus*)

FAMILY: MUSTELIDAE (Weasels and Relatives)

Long-Tailed Weasel (*Mustela frenata*)
American Badger (*Taxidea taxus*)

FAMILY: MEPHITIDAE (Skunks)

Striped Skunk (*Mephitis mephitis*)

FAMILY: FELIDAE (Cats)

Feral Cat (*Felis catus*)

September 11, 2014

**APPENDIX C:
SELECT PHOTOGRAPHS OF THE PROJECT SITE**



Photo 1. View of Project Site looking west from Caldwell Avenue. Corn and weedy stands of barnyard grass and Johnson grass in the corn crop are visible.



Photo 2. Stand of corn along site's eastern boundary.

**RECONNASSAINCE-LEVEL BIOLOGICAL EVALUATION
OF POTENTIAL IMPACTS TO SENSITIVE AND
LISTED SPECIES
FOR THREE PROPOSED PLAINVIEW WASTEWATER
SYSTEM ALTERNATIVES,
TULARE COUNTY, CALIFORNIA**

**Prepared for:
Tulare County Resource Management Agency and
Provost and Pritchard**

**Prepared by:
Bobby Kamansky**



December 10, 2014

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EXECUTIVE SUMMARY

Provost and Pritchard Consulting Group contacted Kamansky's Ecological Consulting (KEC) for a survey near of potential alignments for a waste water conveyance system from or in Plainview, Tulare County, California on behalf of Tulare County Resource Management Agency. The subject areas are located between Lindsay, Plainview and Woodville.

The purpose of the Project is to research the feasibility of a community wastewater system, including sewer lines, treatment options, and wastewater disposal options. There are four proposed alternatives, including the No Action Alternative. The final result of this stage of the project will be a recommended project to provide wastewater collection, treatment and disposal for the community of Plainview. Included in this stage of the project, environmental documentation pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) shall be completed meeting the requirements of both acts.

Thirty-nine (39) Special Status Species are known to occur in the vicinity or the proposed alternatives. Nineteen (19) Special Status animal species and twenty (20) Special Status plant species are known to occur in the general vicinity of the proposed Plainview Wastewater System (the action area). Field surveys conducted during this biological evaluation did not document the presence of any Special Status animal or plant species on the subject property, but kit foxes are known to den in the area, badgers could occupy the site or move into the area prior to construction and Swainson's hawks have been known to established nests within 10 miles of the site, other raptors such as white-tailed kite, red-tailed hawks, great-horned owls and barn owls are all known to forage and nest in the vicinity.

While KEC does not anticipate significant impacts, there is potential for impact to occur. At a minimum, pre-construction surveys will be required to identify any species occupying the alternative selected for construction. Avoidance, minimization and mitigation measures are required in the event that species and habitats area detected within the action area.

A. PROJECT DESCRIPTION, BACKGROUND, AND AGENCY INVOLVEMENT

A.1 Project Background

Provost and Pritchard Consulting Group contacted Bobby Kamansky, Principal Biologist, Kamansky's Ecological Consulting (KEC) for a survey in between Lindsay, Plainview, and Woodville. The subject properties and sites are located in central Tulare County (Figure 1). The areas for each alternative occur near major roads, within close proximity to large trees, orchards, and farmland.

This report is being submitted to Provost and Pritchard and the Agency to inform about the site conditions and inform the feasibility study. It is agreed that the report of findings produced upon the conclusion of this reconnaissance level focused biological survey will be used in the following manner only: for consideration during any necessary NEPA/CEQA mitigation requirements or other permitting processes.

A.2 Applicant and Project Description

Provost and Pritchard Consulting Group contacted Bobby Kamansky, Principal Biologist, Kamansky's Ecological Consulting (KEC) for a survey in between Lindsay, Plainview, and Woodville (see Figure 1) on behalf of County of Tulare. Kamansky's Ecological Consulting was contracted to assist with investigating biological resources to inform a waste water treatment plant feasibility study.

The community of Plainview is located in western central Tulare County between the Cities of Porterville and Tulare near the intersection of Avenue 196 and Road 196. Plainview consists mainly of residential properties and is currently served by a community water system with a total of approximately 240 connections. The Plainview Mutual Water Company (PMWC) operates the community water system. The water system facilities, consisting of two wells, two chlorinators, and two 8,000 gallon hydropneumatic tanks were recently renovated. Additionally, the water system service laterals were relocated to the front of the parcels, and the water mains were constructed in the County road right of way.

Residential wastewater produced in the community of Plainview is currently disposed of in privately owned, individual, residential septic systems. Average lot sizes in the community are approximately 7,000 square feet. The

typical lot size in the community is smaller than the minimum County requirement of 12,500 square feet for septic systems on parcels located in areas served by a community water system.

Existing soil conditions in the area surrounding the community of Plainview restrict septic system effluent leaching. Thus, to properly maintain septic systems, residents must pump and dewater septic tanks at a burdensome cost for this low income area.

The purpose of the Project is to research the feasibility of a community wastewater system, including sewer lines, treatment options, and wastewater disposal options. The final result of this stage of the project will be a recommended project to provide wastewater collection, treatment and disposal for the community of Plainview. Included in this stage of the project, environmental documentation pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) shall be completed meeting the requirements of both acts. Throughout this report, the NEPA and CEQA language will be used to address both acts.

The three action alternatives all involve connections in Plainview, but either they do not convey waste water, as in alternative one, or pipelines will convey the wastewater to existing facilities. The following is a description of each of the alternatives and their construction footprints and action areas.

Alternative #1:

This Alternative occupies a parcel in the town of Plainview and involves constructing a wastewater treatment plant (See Figure 2, index number 3). The site is currently farmed in alfalfa and there are several large trees in the area (see photograph 4, Appendix). South east of the site is a walnut orchard and to the west are alfalfa fields and to the east is a fallow field and pasture.

The WWTP at Plainview includes a Lift Station that will be incorporated in the full plant details on the 930 feet by 1,238 feet proposed site.

Construction of the lift stations is estimated to take approximately one month. The construction of the lift station will include digging a large pit for the two lift station pumps and valves and a trench connecting the lift station to the sewer line on the east side of the road.

Equipment for construction will include one excavator; three construction crew trucks; a jumping Jack for two days; generators for equipment will be required; three concrete trucks for two pour days; a sweeper truck for one day and a water truck for 10 days.

Alternative #2 – Preferred Alternative

This alternative involves connecting Plainview's wastewater system with the treatment plant in Lindsay (See Figure 2, index number 1). The alignment (route of pipeline) contains many trees directly adjacent to the road (see photograph 3, Appendix). Crops along the alignment include olive, citrus, pomegranate, and grape. There are a number of residences along the route.

The Lindsay and Woodville forcemain lift station pumps will be underground in a space nine feet long by nine feet wide by 19 feet deep. Construction and operational site area and work area radius is 100 feet by 50 feet (5,000 sq ft). The panel and generator will be above ground.

The Lindsay pipe trench will be 23,734 linear feet (4.5 miles) by four feet deep by 20 feet wide along the alignment to the Lindsay WWTP.

The Lindsay and Woodville gravity lift stations will each be in a hole 14 feet by 14 feet by 20 feet at deepest and six feet at shallowest. There will be a six feet by six feet valve box and a small motor control panel that is six feet by 1.5 feet wide. A small electrical cabinet will be visible above ground.

Alternative #3

This alternative involves connecting Plainview's wastewater system with the treatment plant in Woodville. The alignment would cross the Tule River and Porter Slough, both jurisdictional wetlands with riparian areas (See Figure 2, index number 4). Because of this, Alternative #3 is unique as neither of the other two alternatives have this additional protected habitat, only Alternative #2 has wetlands at the site of the existing Treatment Plant and no riparian areas. There are also many large trees within or adjacent to the project impact footprint and impact footprint. These will likely need to be avoided. Crops in the area include walnut, alfalfa, citrus, pomegranate, grape, apricot, silage. There are several large dairies in the area and residences.

Woodville pipe trench will be 38,500 linear feet (7.3 miles) by 4.5 feet deep by 20 feet wide.

The Lindsay and Woodville gravity lift stations will each be in a hole 14 feet by 14 feet by 20 feet at deepest and six feet at shallowest. There will be a six feet by six feet valve box and a small motor control panel that is six feet by 1.5 feet wide. A small electrical cabinet will be visible above ground.

Alternative #4

No action alternative.

Table 1 below summarizes and compares a few metrics for the three alternatives.

Table 1. Summary of specific metrics on the three alternatives.

Alternative	Trees	Approx. Distance (mi)	Trees/ mile	Wetlands	Raptors^a	Burrowing Owl Habitat	Kit Fox Habitat
1. New WWTP	20	N/A	N/A	--	F, N	X ^b	X
2. Lindsay Pipeline	138	4.2	32.8	X (at existing ponds)	N	X	X
3. Woodville Pipeline	207	9.5	21.8	X	F, N	X	X

^aF=foraging habitat; N=Nesting habitat; ^bX=applies to alternative

B. LOCATION OF SUBJECT PROPERTY

The subject properties covered by this biological investigation are located in central Tulare County, between the towns of Plainview, the City of Lindsay and the City of Tulare. Approximate areas extend between Avenue 232 and Avenue 192 along Road 196, Avenue 192 and Avenue 168 along Road 192, and Road 192 and Road 168 along Avenue 168. The lift station improvements near the City of Lindsay are just north of Highway 137 (see figures 1 and 2). Areas 250 feet along the alignment were the focus of the study, but for wide ranging species, such as raptors, surveys extended up to 0.5 mile from the alignments/sites.

C. BASELINE CONDITIONS – ENVIRONMENTAL SETTING

The land on the subject property supports little undisturbed (uncultivated) vegetation and few native plants.



Figure 1. Regional overview of the alternatives area

Alternative #1

This Alternative occupies a parcel in the town of Plainview and involves constructing a wastewater treatment plant. The site is currently farmed in alfalfa and there are several large trees in the area. South east of the site is a walnut orchard and to the west are alfalfa fields and to the east is a fallow field and pasture. The baseline condition of the site for the treatment plant is farmed.

Alternative #2 – Preferred Alternative

This alternative involves connecting Plainview's wastewater system with the treatment plant in Lindsay. The alignment (route of pipeline) contains many trees directly adjacent to the road. Crops along the alignment include olive, citrus, pomegranate, and grape. There are a number of residences along the route.

Alternative #3

This alternative involves connecting Plainview's wastewater system with the treatment plant in Woodville. The alignment would cross the Tule River and Porter Slough, both jurisdictional wetlands. Because of this, Alternative #3 is unique as neither of the other two alternatives have this additional protected habitat (except at the Lindsay Treatment Plant, where there are wetlands in the existing ponds). There are also many large trees within or adjacent to the project impact footprint and impact area. Crops in the area include walnut, alfalfa, citrus, pomegranate, grape, apricot, silage. There are several large dairies in the area and residences.

C.1. VEGETATION ON THE PROPOSED PLAINVIEW WASTEWATER SYSTEM ALTERNATIVES

C.1.a Natural Communities

Associations of plant species that grow in assemblages under similar ecological conditions are called plant communities (also known as natural communities or biotic communities). Generally, they are named for the dominant species found in the association. Definition of plant communities is important not only because it identifies types of plants that are present, but also because it indicates habitat types and animal species which may be found in the community. In this section, common names and scientific (Latin binomial) names of plants will both be given the first time they are mentioned; thereafter only common names will be used.

C.1.b Native Plant Communities

The land on the subject property supports little undisturbed (uncultivated) vegetation and native plant communities. According to the natural community classification scheme used by Holland (1986), Alternatives 1-3 of the Plainview Wastewater System is located in a part of the southern San Joaquin Valley that originally contained components of two natural communities prior to development: Valley Grassland and Valley Oak Riparian Woodland. The ditchbank association occurs in areas where Porter Slough water conveyance infrastructure exists and trees and shrubs were removed or where saline and sodic conditions preclude higher plant growth.

C.1.c Plant Species Composition on the Plainview Wastewater System

The subject property currently supports relatively low species richness of wild plants. There are patches of native vegetation along the subject sites, but these are isolated.

C.1.c.1 Valley Grassland

Small patches of this habitat occupy fallow or unfarmed fields and edges of farms and pastures. Dominant species observed on the subject property during the field survey include the following annuals in the grassland: hare barley (*Hordeum marinum* ssp. *gussoneaum*), whitestem filaree (*Erodium moschatum*), redstem filaree (*Erodium cicutarium*), ripgut grass (*Bromus diandrus*). In the areas with native trees, Valley oaks, form sparse canopied woodlands.

C.1.b.2 Waterway (Ditch bank) Association

The waterway (ditch bank) association is not one of the plant communities listed in Holland (1986) but it is a recognizable plant community that includes some species that are normally found in native riparian or freshwater marsh communities. This ditch bank association occurs along Porter Slough and the Tule River stretches that cross the potential Alternative #3 alignment. Species that are part of this narrow (from a few inches to about 40 feet in width) strip of hydrophytic vegetation require aquatic (ditch bank or marsh-like) conditions. These plants either grow in the water or in the moist soil

at the water's edge. On the subject properties, this community of native and non-native plants includes the following species: smooth scouring rush (*Equisetum laevigatum*), flax-leaved fleabane (*Conyza bonariensis*), mare's tail (*Conyza canadensis*), cudweed species (*Gnaphalium* sp.), yellow cress (*Rorippa palustris* var. *occidentalis*), panicle willowweed (*Epilobium brachycarpum*), seep monkeyflower (*Mimulus guttatus*) willow (*Salix* sp.) and cottonwood (*Populus fremontii*). This community provides food and cover for aquatic animals (including invertebrates like damselflies and dragonflies) and vertebrates (like fish, frogs, and ducks).

C.2 INVERTEBRATES

The sites house common invertebrate species often observed in farm fields and fallow lands such as grasshoppers, flies, dragonflies, etc.

C.3 VERTEBRATE ANIMALS ALONG THE PROPOSED PLAINVIEW WASTE WATER SYSTEM ALTERNATIVES

Twenty two vertebrate species, including 19 birds, were recorded at the Proposed Plainview Wastewater System Site. See Appendix.

C.3.a Amphibians

No Amphibians were observed on the subject property during field work. But the areas along Porter Slough and Tule River provide habitat for western toads (*Bufo boreas*) and tree frogs (*Pseudacris regillia*).

C.3.b Reptiles

No reptiles were observed on the subject property during field work. The site does provide habitat for common species such as western fence lizards (*Sceloporus occidentalis*).

C.3.c Birds

Nineteen bird species were observed on the site during survey times and dates. The grasslands on the site support common species such as doves and the areas in the riparian area support winter resident birds, neotropical migrants such as blue grosbeaks (*Passerina caerulea*) and raptors such as red-tailed hawks (*Buteo jamaicensis*), barn owls (*Tyto alba*) and for Swainson's hawks (*Buteo swainsonii*), although no Swainson's hawks were observed on the site and they have been known to nest within 10 miles of the site. See Appendix for full list.

C.3.d Mammals

California ground squirrels (*Spermophilus beechii*) are present on the site and the site provides habitat for species such as American badger (*Taxus taxidea*) and long-tailed weasels (*Mustela frenata*), but these species were not observed during the surveys.

D. STUDIES REQUIRED TO SATISFY ENDANGERED SPECIES LAWS

Several species of plants and animals within the state of California have low populations, limited distributions, or both. 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. State and federal laws have provided DFW and the USFWS with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. Many native plant and animal species have been formally designated as Threatened or Endangered under state and federal endangered species legislation. Others have been designated as “Species of Special Concern” by DFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened or endangered (CNPS 2001). Collectively, these plants and animals are referred to as “Special Status Species”.

E. FEDERAL AND STATE AGENCY INTERACTION

E.1 Federal Agency Interaction on Resource Issues

Because the proposed Plainview Wastewater System is within the range of the San Joaquin kit fox and other listed and proposed species, Provost and Pritchard requested that KEC conduct a survey for this property in the County of Tulare on behalf of Tulare County Resource Management Agency. On sites such as this in the Plainview area, USFWS routinely recommends that a "trained biologist, familiar with the habitat requirements of listed and proposed species, should determine whether these species or habitats suitable for these species may be affected by the proposed action...prior to the environmental review process."

In a 1 April 1996 letter from USFWS to an applicant for a separate project in Tulare County, USFWS stated:

If a Federal agency is involved with the permitting, funding, or carrying out of this Project, then initiation of formal consultation between the agency and the Service pursuant to Section 7 of the

[Endangered Species] Act is required *if* it is determined that the proposed Project may affect a federally listed species.

In situations where the project has no federal nexus, consultation between the Applicant (County) and USFWS/California Department of Fish and Wildlife (DFW) pursuant to Section 10 of the [Endangered Species] Act is required *if* it is determined that the proposed project may affect a federally listed species.

E.2 State Agency Interaction on Resource Issues

California Department of Fish and Wildlife (DFW) routinely recommends that applicants conduct a biological assessment for sensitive species and, in particular, a kit fox and raptor survey and avoidance prior to construction. In its role as a trustee agency, DFW works with project applicants to avoid or minimize adverse effects on fish, wildlife (including raptors), or native plants.

E.3 Project-related Mitigation Guidelines

USFWS and DFW work to avoid land use decisions that might restrict the range or reduce the numbers of rare or endangered species. Under the Endangered Species Act, if it is determined that listed species will be adversely affected (or if a project impact is likely to have an adverse effect on listed species), such impacts will need to be mitigated. Under these circumstances, Applicant should initiate informal consultation with USFWS/DFW to determine whether a Section 7 consultation is indicated.

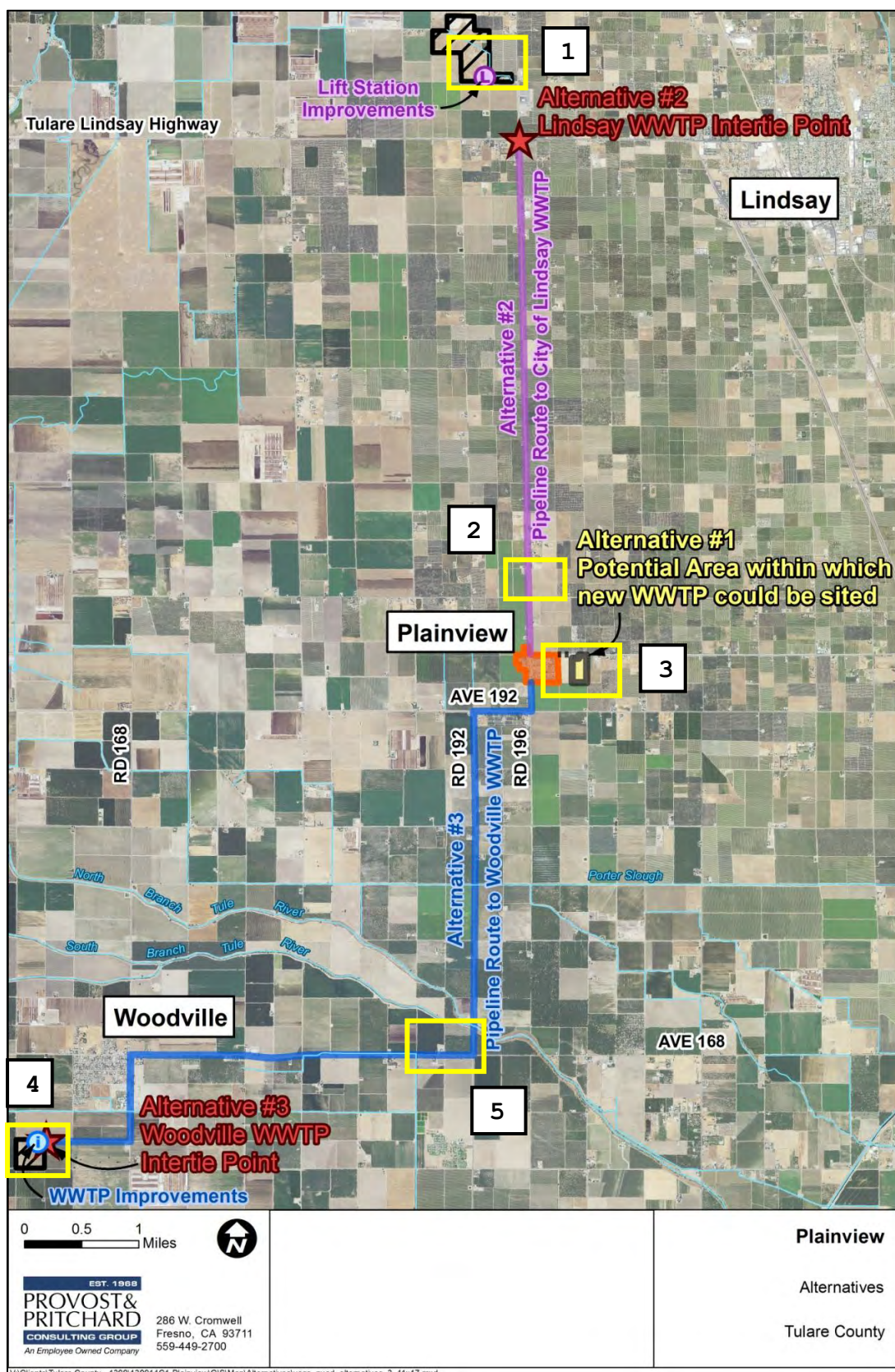


Figure 1. Alternative locations for the Plainview Wastewater Treatment Plant. Index numbers refer to the segments referred to in the text and in photographs.

Under CEQA, once a threshold for significance has been established (e.g. significant impacts to a natural community, to special status species, or to common wildlife species), applicant can address a range of mitigation options. In view of CEQA guidelines, DFW traditionally encourages project proponents (such as the Agency) to take the following hierarchical approach to mitigate for any human impacts on natural communities and wildlife:

- 1) Ideally, any proposed project should be designed to *avoid* impacts to high quality habitat and sensitive species (e.g. San Joaquin kit fox, raptors).
- 2) If avoidance is not possible, DFW encourages project proponent to minimize loss of natural habitat and habitat quality. Habitat improvements, including revegetation with native species or enhancement of degraded habitat (including removal of non-native species), either on-site or off-site may be used as mitigation.
- 3) Another important component of effective mitigation includes efforts aimed at reducing human disturbance by controlling access to sensitive areas or devising plans for coexistence.
- 4) Short-term mitigation shall be recommended during construction. Construction and maintenance personnel are instructed on "take" avoidance. Native vegetation may be replanted, and protection recommended on the project site for habitat features critical to endangered and threatened species. Individual plants or animals may be relocated off-site by a qualified biologist.
- 5) Long-term mitigation may include control of alien and wild predators and invasive plant species, or encouraging growth of forage plants for native animal species.
- 6) In the event that impacts cannot be avoided, compensation shall be required.

F. STUDY METHODOLOGY

F.1 Literature Review

A review of literature was conducted to provide additional information about the relevant species.

F.2 Consultation with Experts on Species

Several biologists were consulted or involved in this study to provide

additional information. Kamansky's Ecological Consulting also provided additional species information and records from field notes by Bobby Kamansky from nearby sites to supplement CNDDDB information about the region.

F.3 Survey Methods

Survey methods consisted of vehicular surveys along proposed pipeline routes and around WWTP sites. Additional pedestrian surveys were conducted of specific sites with potential special status species. All of the trees and possible habitats were inspected for all species with potentially to occur.

F.4 Survey Dates and Survey Personnel

The field component of the investigation was conducted over several days. Bobby Kamansky conducted the initial site visits on June 30th and July 4th between 0900 and 1930 hours, KEC Ecologist, Bobby Kamansky and biologist Gary Adest, PhD conducted surveys on July 9th between 0900 and 2030 hours and Bobby Kamansky and biologist Vaughan Williams completed field work on July 21st, 2014 between 1200 and 2000 hours. Site visits were scheduled to cover all times of the day to observe all possible species and habitats, including nocturnally active species.

F.5 Consult California Natural Diversity Data Base (CNDDDB)

The biological investigation conducted by KEC focused on the status of several Special Status Species. Species and the one habitat listed in the CNDDDB for the 12 quadrangles are considered Special Status Species and are often treated as if they were listed under Federal or State Endangered Species Acts.

Additional species and records were added from field notes and documented during surveys. The likelihood of the species occurring on the site is categorized as present, absent, possible or unlikely. Based on whether they were detected, are known to exist on the site or immediately adjacent (present), were not detected and not expected, owing to lack of habitat (absent), possibly occurring with suitable or suboptimal habitat present but not detected (possible), not likely to occur with no habitat or suboptimal habitat present and not detected (unlikely).

Thirty-nine (39) Special Status Species are known to occur in the vicinity.

Nineteen (19) Special Status animal species are known to occur in the general vicinity of the proposed Plainview Wastewater System (the subject area). Field surveys conducted during this biological evaluation did not document the presence of any Special Status animal or plant species on the subject property, but Swainson's hawks have been known to established nests within 10 miles of the site, other raptors such as white-tailed kite, red-tailed hawks, great-horned owls and barn owls are all known to forage and nest in the vicinity.

Twenty (20) Special Status plant species were included in the CNDDDB printout for the twelve relevant quadrangles. Only nesting raptor species, kits foxes and some plant species are known to occur in the vicinity of the site. Elderberries are present on the sites, but the Valley elderberry long-horned beetle is not in listed in populations in Tulare County.

A single native plant community, Northern claypan Vernal Pool, was listed in the CNDDDB.

Table 2 below summarizes the species, habitats and occurrences that were listed in the California Natural Diversity Database.

G. RESULTS OF BIOLOGICAL EVALUATION

G.1 SPECIAL STATUS PLANT SPECIES

G.1.a Calico monkeyflower (*Mimulus pictus*) CNPS 1B.2

There is one Quad that has a record for the calico monkey flower: Lindsay Quad. CNPS identifies habitat as broadleaved upland forests and cismontane forests with granitic substrate and no habitat such as this occupies any of the alternatives.

No calico monkey flower was found on the site/alignments. This species was not observed during surveys. No undisturbed habitat exists along the alignments and sites. Extreme drought persists during the study, however and this may preclude observation of small populations.

G.1.b California jewel-flower (*Caulanthus californica*) Fed Endangered, State Endangered CNPS 1B.1

There is one quad with records for the California jewel flower: Tulare.

No California jewel flower was found on the alignment/sites. Habitat for this species is listed by CNPS as chenopod scrub, valley and foothill

#	QUAD NAME	SCIENTIFIC NAME	COMMON NAME	FED STATUS	CAL STATUS	CDFW	CNPS	OCCURRENCE SUMMARY
1	Pixley	<i>Taxidea taxus</i>	American badger	None	None	SSC	-	Possible**. Isolated patches of dry pastures and grasslands, riverbanks and channels harbor badger foraging and denning habitat.
	Porterville	<i>Taxidea taxus</i>	American badger	None	None	SSC	-	
2	Tipton	<i>Andrena macswaini</i>	An andrenid bee	None	None	-	-	Possible. Species not observed during surveys, but likely to be present in uncultivated areas.
	Tulare	<i>Andrena macswaini</i>	An andrenid bee	None	None	-	-	
3	Pixley	<i>Gambelia sila</i>	blunt-nosed leopard lizard	Endangered	Endangered	FP	-	Unlikely. This species was not observed during surveys on any of the alternatives. Very little undisturbed habitat exists in the areas. No recent records for this species in the area.
	Tipton	<i>Gambelia sila</i>	blunt-nosed leopard lizard	Endangered	Endangered	FP	-	
4	Sausalito School	<i>Atriplex depressa</i>	Brittlescale	None	None	-	1B.2	Possible. This species was not observed along any of the alignment/sites. Several dry pastures may harbor this species.
5	Cairns Corner	<i>Athene cunicularia</i>	burrowing owl	None	None	SSC	-	
	Pixley	<i>Athene cunicularia</i>	burrowing owl	None	None	SSC	-	
	Porterville	<i>Athene cunicularia</i>	burrowing owl	None	None	SSC	-	
	Sausalito School	<i>Athene cunicularia</i>	burrowing owl	None	None	SSC	-	

	Tipton	<i>Athene cunicularia</i>	burrowing owl	None	None	SSC	-	
	Tulare	<i>Athene cunicularia</i>	burrowing owl	None	None	SSC	-	
	Woodville	<i>Athene cunicularia</i>	burrowing owl	None	None	SSC	-	Possible. Denning and foraging habitat exists in many areas in all alternatives.
6	Lindsay	<i>Mimulus pictus</i>	calico monkeyflower	None	None	-	1B.2	Unlikely. This species was not observed during surveys. Very little undisturbed habitat exists along the alignments and sites. Extreme drought persists during the study, however and this may preclude observation of small populations.
7	Sausalito School	<i>Caulanthus californicus</i>	California jewelflower	Endangered	Endangered	-	1B.1	
	Tulare	<i>Caulanthus californicus</i>	California jewelflower	Endangered	Endangered	-	1B.1	
	Woodville	<i>Caulanthus californicus</i>	California jewelflower	Endangered	Endangered	-	1B.1	Unlikely. This species was not observed during surveys. Very little undisturbed habitat exists along the alignments and sites. Extreme drought persists during the study which may preclude small populations observation.
8	Pixley	<i>Phrynosoma blainvillii</i>	coast horned lizard	None	None	SSC	-	
	Tipton	<i>Phrynosoma blainvillii</i>	coast horned lizard	None	None	SSC	-	Possible. This species was not observed along any of the alignment/sites. Several dry pastures may harbor this species.
9	Cairns Corner	<i>Atriplex cordulata</i> var. <i>erecticaulis</i>	Earlimart orache	None	None	-	1B.2	

	Pixley	<i>Atriplex cordulata</i> var. <i>erecticaulis</i>	Earlimart orache	None	None	-	1B.2	
	Sausalito School	<i>Atriplex cordulata</i> var. <i>erecticaulis</i>	Earlimart orache	None	None	-	1B.2	Habitat: Chenopod scrub, playas, valley and foothill grassland/alkaline, sandy soils. Several dry pastures may harbor this species. Possible
10	Cairns Corner	<i>Delphinium hansenii</i> ssp. <i>ewanianum</i>	Ewan's larkspur	None	None	-	4.2	
	Ducor	<i>Delphinium hansenii</i> ssp. <i>ewanianum</i>	Ewan's larkspur	None	None	-	4.2	Habitat: Valley and foothill grassland habitat absent or in small patches. Possible. Some small patches of suitable habitat may exist along the alignments in Alternatives 2 and 3.
11	Ducor	<i>Lasiurus cinereus</i>	hoary bat	None	None	-	-	Unlikely. Suitable habitat includes deciduous and coniferous forest up to 9,000 feet. Project sites constitute poor or temporary habitat.
12	Ducor	<i>Lytta hoppingi</i>	Hopping's blister beetle	None	None	-	-	Possible. Some small patches of suitable habitat may exist along the alignments in Alternatives 2 and 3.
13	Cairns Corner	<i>Atriplex minuscula</i>	lesser saltscale	None	None	-	1B.1	Habitat: Chenopod scrub, playas, valley and foothill grassland/alkaline, sandy soils. Several dry pastures may harbor this species. Possible
14	Pixley	<i>Myosurus minimus</i> ssp. <i>apus</i>	little mousetail	None	None	-	3.1	Unlikely. No vernal pools or mima mound topography was observed during surveys.
15	Sausalito School	<i>Atriplex coronata</i> var. <i>vallicola</i>	Lost Hills crownscale	None	None	-	1B.2	Habitat: Chenopod scrub, playas, valley and foothill grassland, vernal pools/alkaline, soils. Several dry pastures may harbor this species. Possible.
16	Sausalito School	<i>Azolla microphylla</i>	Mexican mosquito fern	None	None	-	4.2	Unlikely (Alts. 1 and 2). Possible (Alt. 3). . Exists in ponds or slow streams, which were not observed during surveys on the majority of the sites. Alternative 3 includes two such

17	Lindsay	<i>Lytta molesta</i>	molestan blister beetle	None	None	-	-	Possible. Although often found within vernal pool habitat (not present on any of the alts), occurrences has been recorded on common plants such as, <i>Lupinus</i> , <i>Trifolium</i> , and <i>Erodium</i> .
18	Pixley	<i>Lytta morrisoni</i>	Morrison's blister beetle	None	None	-	-	
	Porterville	<i>Lytta morrisoni</i>	Morrison's blister beetle	None	None	-	-	
	Tipton	<i>Lytta morrisoni</i>	Morrison's blister beetle	None	None	-	-	Possible. Has been observed feeding on <i>Gilia tricolor</i> and <i>Linanthus liniflorus</i> .
19	Pixley	<i>Charadrius montanus</i>	mountain plover	None	None	SSC	-	Possible. May winter in undisturbed and recently burned grasslands nearby.
20	Ducor	<i>Northern Claypan Vernal Pool</i>	Northern Claypan Vernal Pool	None	None	-	-	
	Pixley	<i>Northern Claypan Vernal Pool</i>	Northern Claypan Vernal Pool	None	None	-	-	
	Porterville	<i>Northern Claypan Vernal Pool</i>	Northern Claypan Vernal Pool	None	None	-	-	
	Sausalito School	<i>Northern Claypan Vernal Pool</i>	Northern Claypan Vernal Pool	None	None	-	-	Absent. Undisturbed habitat characteristic of historical valley floor was not observed during surveys.
21	Woodville	<i>Oreonana purpurascens</i>	purple mountain-parsley	None	None	-	1B.2	Unlikely. Broadleaved upland forest, subalpine coniferous forest, upper montane coniferous forest at elevations 2395-2865 m does not exist within project boundaries.
22	Cairns Corner	<i>Delphinium recurvatum</i>	recurved larkspur	None	None	-	1B.2	Unlikely. Habitats: Chenopod scrub, cismontaine woodland, valley and foothill grassland/ alkaline soils were not observed during field surveys.

	Pixley	<i>Delphinium recurvatum</i>	recurved larkspur	None	None	-	1B.2	
	Sausalito School	<i>Delphinium recurvatum</i>	recurved larkspur	None	None	-	1B.2	
	Tipton	<i>Delphinium recurvatum</i>	recurved larkspur	None	None	-	1B.2	Possible. Habitats: Chenopod scrub, cismontaine woodland, valley and foothill grassland/ alkaline soils were not observed during field surveys.
23	Ducor	<i>Pseudobahia peirsonii</i>	San Joaquin adobe sunburst	Threatened	Endangered	-	1B.1	
	Lindsay	<i>Pseudobahia peirsonii</i>	San Joaquin adobe sunburst	Threatened	Endangered	-	1B.1	
	Porterville	<i>Pseudobahia peirsonii</i>	San Joaquin adobe sunburst	Threatened	Endangered	-	1B.1	
	Tulare	<i>Pseudobahia peirsonii</i>	San Joaquin adobe sunburst	Threatened	Endangered	-	1B.1	Possible. Cismontane woodland, valley and foothill grassland/ adobe clay (elevation 90 – 800 m). Habitat was not observed during field survey although small patches may exist.
24	Cairns Corner	<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	Endangered	Threatened	-	-	
	Ducor	<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	Endangered	Threatened	-	-	
	Lindsay	<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	Endangered	Threatened	-	-	
	Pixley	<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	Endangered	Threatened	-	-	
	Porterville	<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	Endangered	Threatened	-	-	

	Sausalito School	<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	Endangered	Threatened	-	-	
	Tipton	<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	Endangered	Threatened	-	-	
	Tulare	<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	Endangered	Threatened	-	-	
	Woodville	<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	Endangered	Threatened	-	-	Possible. Denning and foraging habitat exists in many areas in all alternatives.
25	Pixley	<i>Perognathus inornatus inornatus</i>	San Joaquin pocket mouse	None	None	-	-	
	Sausalito School	<i>Perognathus inornatus inornatus</i>	San Joaquin pocket mouse	None	None	-	-	
	Tipton	<i>Perognathus inornatus inornatus</i>	San Joaquin pocket mouse	None	None	-	-	Possible. Denning and foraging habitat exists in many areas in all alternatives.
26	Pixley	<i>Cicindela tranquebarica ssp.</i>	San Joaquin tiger beetle	None	None	-	-	Possible. Known to occur in clay or sandy soils, which are found near each alternative
27	Pixley	<i>Masticophis flagellum ruddocki</i>	San Joaquin whipsnake	None	None	SSC	-	Possible. Associated with grassland and saltbush scrub, which does occur but with low frequency along the project boundary
28	Lindsay	<i>Convolvulus simulans</i>	small-flowered morning-glory	None	None	-	4.2	Possible. Habitat: chaparral, coastal scrub, valley and foothill grassland/ clay and serpentine seeps (elevation: 30 – 700 m). Habitat was not observed although may occur in small patches.
29	Porterville	<i>Clarkia springvillensis</i>	Springville clarkia	Threatened	Endangered	-	1B.2	Unlikely. Occurs at a higher elevation. Habitat not present.
30	Lindsay	<i>Fritillaria striata</i>	striped adobe-lily	None	Threatened	-	1B.1	

	Porterville	<i>Fritillaria striata</i>	striped adobe-lily	None	Threatened	-	1B.1	Unlikely. At lowest end of elevation range. Occurs in cismontane woodland, valley and foothill grassland / usually clay. Habitat not observed during surveys,
31	Cairns Corner	<i>Atriplex subtilis</i>	subtle orache	None	None	-	1B.2	Possible. Found in valley and foothill grassland. Habitat patchy if present.
	Pixley	<i>Atriplex subtilis</i>	subtle orache	None	None	-	1B.2	
	Sausalito School	<i>Atriplex subtilis</i>	subtle orache	None	None	-	1B.2	
32	Cairns Corner	<i>Buteo swainsoni</i>	Swainson's hawk	None	Threatened	-	-	
	Tipton	<i>Buteo swainsoni</i>	Swainson's hawk	None	Threatened	-	-	
	Tulare	<i>Buteo swainsoni</i>	Swainson's hawk	None	Threatened	-	-	Possible. Nesting trees were observed at each alternative. Proximity to crops such as alfalfa may provide foraging habitat.
33	Cairns Corner	<i>Dipodomys nitratoides nitratoides</i>	Tipton kangaroo rat	Endangered	Endangered	-	-	
	Pixley	<i>Dipodomys nitratoides nitratoides</i>	Tipton kangaroo rat	Endangered	Endangered	-	-	
	Tipton	<i>Dipodomys nitratoides nitratoides</i>	Tipton kangaroo rat	Endangered	Endangered	-	-	
	Tulare	<i>Dipodomys nitratoides nitratoides</i>	Tipton kangaroo rat	Endangered	Endangered	-	-	
	Woodville	<i>Dipodomys nitratoides nitratoides</i>	Tipton kangaroo rat	Endangered	Endangered	-	-	Possible. Although often associated with saltbrush habitats, this species may occupy abandoned farm fields (which were observed during

								suveys).
34	Pixley	<i>Agelaius tricolor</i>	tricolored blackbird	None	None	SSC	-	Possible. Often foraging in agricultural lands which occur near each alternative.
35	Woodville	<i>Eriogonum twisselmannii</i>	Twisselmann's buckwheat	None	Rare	-	1B.2	Unlikely. Occurs and higher elevations (2375 – 2805 m). Record should be amended.
36	Woodville	<i>Delphinium inopinum</i>	unexpected larkspur	None	None	-	4.3	Unlikely. <i>D. inopinum</i> is a higher altitude plant (1890 – 2800 m). Record should be amended.
37	Pixley	<i>Hordeum intercedens</i>	vernal barley	None	None	-	3.2	Note: This species is only known only from southern California. This species is likely <i>Hordeum depressum</i>
38	Ducor	<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	Threatened	None	-	-	
	Pixley	<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	Threatened	None	-	-	
	Porterville	<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	Threatened	None	-	-	
	Sausalito School	<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	Threatened	None	-	-	Absent. No vernal pools were observed along any of the proposed alignments or sites.
39	Sausalito School	<i>Atriplex persistens</i>	vernal pool smallscale	None	None	-	1B.2	Absent. No vernal pools were observed along any of the proposed alignments or sites.
40	Cairns Corner	<i>Spea hammondi</i>	western spadefoot	None	None	SSC	-	
	Pixley	<i>Spea hammondi</i>	western spadefoot	None	None	SSC	-	

Sausalito School	<i>Spea hammondi</i>	western spadefoot	None	None	SSC	-	Possible. Wetland habitats were not observed during field surveys, but may seasonally exist in the Tule River and Porter Slough. This would provide habitat for this species.
Tulare	<i>Spea hammondi</i>	western spadefoot	None	None	SSC	-	

**Present – Species observed on the site during the study.

Possible – Species reasonably likely to occur because good habitat exists and/or species observed adjacent to the site.

Absent – No habitat is present on the site and there are no historical records on or near the site.

Unlikely - Species reasonably unlikely to occur because no adequate habitat exists and/or species was not observed adjacent to the site.

Federal status:

- FE Listed as endangered under the Federal Endangered Species Act
- FT Listed as threatened under the Federal Endangered Species Act
- FPT Proposed for listing as threatened under the Federal Endangered Species Act
- FSC Species of concern as identified by the U.S. Fish and Wildlife Service

State status:

- SE Listed as endangered under the California Endangered Species Act
- ST Listed as threatened under the California Endangered Species Act
- CFP Listed as fully protected by the California Department of Fish and Game
- CSC Species of concern as identified by the California Department of Fish and Game
- 1B Plant species that are rare, threatened, or endangered in California and elsewhere.

grassland, and pinyon-juniper woodland. Very little undisturbed grassland exists along the alignments and sites. Extreme drought persists during the study, however and this may preclude observation of small populations.

G.1.c Earlimart orache (*Atriplex erecticalis*) CNPS 1B.2

This CNPS species profile mentions records of Earlimart orache on the Cairns Corner, Pixely and Sausalito School and Ivanhoe quads in this portion of Tulare County.

No Earlimart orache, or any annual saltbush (Atriplex) species, was found on the alignment/sites. Earlimart orache grows on valley and foothill grassland. This species was not observed along any of the several dry pastures and farm edges that could harbor this species. The closest suitable habitat for this species was located on 725 acres of land that is known as the James K. Herbert Wetland Prairie Preserve, found approximately three miles west of the alignments.

G.1.d Subtle orache (*Atriplex subtilis*) CNPS 1B.2

This CNDDDB lists records of subtle orache on the Cairns Corner, Pixely, and Sausalito School quads.

No subtle orache or any annual saltbush (Atriplex) species, was found on the alignment/sites. Subtle orache grows on Chenopod scrub, alkali meadows and seeps, and valley and foothill grassland. The closest suitable habitat for this species was located on 725 acres of land that is known as the James K. Herbert Wetland Prairie Preserve, found approximately three miles west of the alignments.

G.1.e Lesser saltscale (*Atriplex miniscula*) CNPS 1B.1

There are records if this species from the Cairns Corner Quad. The CNDDDB record from the Cairns Corner Quad originates from swales and margins of slickspots in annual grassland with bush seepweed and common tarplant at the Tulare County Landfill property on both sides of Bliss Road (Road 152) about 0.5-1.0 mile north of Avenue 192 (in the northwest ¼ and the southwest ¼ of the northeast ¼ of Section 35, Township 20 South, Range 25 East) approximately seven miles west of the alignments

No lesser saltscale, or any annual saltbush (Atriplex) species, was found on the alignment/sites. Lesser saltscale grows on Chenopod scrub,

playas, sandy soils in alkaline areas, and Valley and foothill grassland often in association with slough systems and river floodplains. None of these plant communities occur on the alignment/sites. The closest suitable habitat for this species was located on 725 acres of land that is known as the James K. Herbert Wetland Prairie Preserve, found approximately three miles west of the alignments.

G.1.f Small-flowered morning-glory (*Convolvulus simulans*) CSPA 4.2

This species was found within the Lindsay quad. Habitat for this species includes chaparral, coastal scrub, Valley and foothill grassland, clay and serpentine seeps. This species was not observed during surveys.

No small-flowered morning-glory was found on the site it is a higher elevation plant and primarily occupies habitat absent from the project area.

G.1.g Purple mountain-parsley (*Oreonana purpurascens*) CNPS 1B.2

This species was found within the Woodville quad. This record may be an error.

No purple mountain mountain-parsley was observed on the site. It is closely associated with broadleaved upland forest, subalpine coniferous forest, and upper montane coniferous forest at elevations 2395-2865 m, which does not exist within the sites/alignments.

G.1.h Striped adobe-lily (*Fritillaria striata*) State Threatened, CNPS 1B.1

There two quads that have records for the striped adobe-lily: Lindsay and Porterville.

Habitat for this species is grasslands and woodlands with heavy adobe clay soils and is not expected to occur on the Proposed Plainview Wastewater System sites. Little to no suitable soils occur for this species on the sites.

No striped adobe-lilies were found on the alignment/sites. It is unlikely to find this species as the sites/alignment is below or at the lowest end of elevation range or this species. It has been found in cismontane woodland, Valley and foothill grassland associated with clay soils. Little to no habitat observed during surveys.

G.1.i San Joaquin adobe sunburst (*Pseudobahia peirsonii*) Fed Threatened, State Endangered, CNPS 1B.1

There are four quads that have a record for the San Joaquin adobe sunburst: Ducor, Lindsay, Tulare, and Porterville.

No San Joaquin adobe sunbursts were found on the alignment/sites. Habitat for this species is grasslands and woodlands with heavy adobe clay soils and very little to no habitat was observed on the alignment/sites.

G.1.j Brittlescale (*Atriplex depressa*) CNPS 1B.2

This species was observed within the Sausalito School quad. This species is expected in saline and alkaline soils.

No brittlescale was found on the sites/alignment, but several dry pastures or fallow fields could harbor this species.

G.1.k Recurved larkspur (*Delphinium recurvatum*) CNPS 1B.2

This CNPS species profile mentions records of recurved larkspur on the Cairns Corner, Pixley, Sausalito, and Tipton quads in this portion of Tulare County. The CNDDDB record from the Cairn's Corner Quad originates from a report from swales and margins of slickspots in annual grassland with bush seepweed and common spike weed at the proposed Tulare County Landfill expansion site on both sides of Bliss Road (Road 152) about 0.5-1.0 mile north of Avenue 192 (the northwest ¼ of Section 35 and the southwest ¼ of the northeast ¼ of Section 35, Township 20 South, Range 25 East), 7 miles west of the alignments..

No recurved larkspur was found on the alignment/sites. Only a few soils on the alignment/sites were observed to be suitable habitat for recurved larkspur or any of the associated halophytes noted above. Very little undisturbed habitat is available for this species. The closest suitable habitat for this species was located on 725 acres of land that is known as the James K. Herbert Wetland Prairie Preserve, found approximately three miles west of the alignments.

G.1.1 Ewan's Larkspur (*Delphinium hansenii* ssp. *ewanianum*) CNPS 4.2

This species' records are known to occur within the Cairns Corner and Ducor quads.

No Ewan's larkspur was found on the alignment/sites. Expected plant communities for this species include Foothill Woodland, Yellow Pine Forest, and Chaparral. These communities were not observed during surveys.

G.1.m Unexpected larkspur (*Delphinium inopinum*) CNPS 4.3

This species has been observed within the Woodville quad. This species is normally found at elevations between 1890 and 2800 m.

No unexpected larkspur was observed on the alignment/sites. No habitat for this species exists along the project sites.

G.1.n Springville clarkia (*Clarkia springvillensis*) Fed Threatened, State Endangered, CNPS 1B.2

This species has been found in the Porterville quad. This species occurs in the foothills of the southern Sierra Nevada.

No Springville clarkia was found on the alignment/sites. This species occurs at a higher elevation and no populations have been found on the Valley floor.

G.1.o Twisselmann's buckwheat (*Eriogonum twisselmannii*) State Rare, CNPS 1B.2

This species was found in the Woodville quad.

No Twisselmann's buckwheat was found on the alignment/sites. This species usually occurs at higher elevations (2375 – 2800 m) and therefore should not occur at the low elevations along the alignment/sites.

G.1.p Vernal barley (*Hordeum intercedens*) CNPS 3.2

The Pixley quad has records of this species occurring.

*No vernal barley was found on the alignment/sites. This species is only known only from southern California. This species is likely *Hordeum depressum*. Which is associated with alkaline grassland and vernal pools, neither of which were observed along any of the sites/alignments.*

G.1.q Vernal pool smallscale (*Atriplex persistens*) CNPS 1B.2

The Sausalito School quad has a record of this species.

No vernal pool smallscale was found on the alignment/sites. No vernal pools were observed along any of the proposed alignments or sites. The closest suitable habitat for this species was located on 725 acres of land that is known as the James K. Herbert Wetland Prairie Preserve, found approximately three miles west of the alignments.

G.1.r Little mousetail (*Myosurus minimus apusi*) CNPS 3.1

This species was found within the Pixley quad.

No little mousetail was found on the alignment/sites. No vernal pools were observed along any of the proposed alignments or sites. The closest suitable habitat for this species was located on 725 acres of land that is known as the James K. Herbert Wetland Prairie Preserve, found approximately three miles west of the alignments.

G.1.s. Lost Hills crownscale (*Atriplex coronata var. vallicola*) CNPS 1B.2

This species has been found within one quad in the area: Sausalito School. Found in chenopod scrub, playas, Valley and foothill grassland, and vernal pools inhabiting alkaline soils.

No Lost Hills crownscale was found on the alignment/sites. Vernal pools do not occur within or adjacent to the sites/alignment.

G.1.t Mexican mosquito fern (*Azolia microphylla*) CNPS 4.2

This species has been found within one quad in the area, Sausalito School. As a wetland species, this species is highly dependent on water. Although some of the surveyed areas along the Tule River and Porter Slough (Alternative #3) may be considered seasonal wetlands, the current weather patterns are not conducive to the propagation of this species along the alignment.

No Mexican mosquito ferns were found on the alignment/sites. This species normal inhabits ponds or slow streams, which were not observed during surveys. It is a possible species along the Porter Slough and Tule River areas in Alternative #3.

G.2 SPECIAL STATUS PLANT COMMUNITIES

g.2.a Northern Claypan Vernal Pool

This community was listed within four quads: Ducor, Pixley, Porterville, and Sausalito School.

No Northern Claypan Vernal Pools were found on the alignment/sites. No wetland areas were observed.

G.3 SPECIAL STATUS INVERTEBRATES

G.3.a Vernal pool fairy shrimp (*Branchinecta lynchi*) FT

There are 3 quads recording the presence of this species in this part of Tulare County: Ducor, Pixley, Porterville, and Sausalito School.

Vernal pool fairy shrimp have been observed and positively identified in vernal pools at Sequoia Riverlands Trust's 725-acre Herbert Wetland Prairie Preserve (Section 7 and Section 18, Township 20 South, Range 26 East).

No vernal pool fairy shrimp were found on the alignment/sites. No vernal pools were observed during surveys.

Vernal pool fairy shrimp are entirely dependent on vernal pool habitat associated with particular soils. Vernal pool fairy shrimp are unlikely to occur anywhere on the alignment/sites because there are no vernal pools located anywhere on or adjacent to the alignment/sites.

G.3.b San Joaquin tiger beetle (*Cicindela tranquebarica*)

The Pixley quad has the only record for this species in Tulare County. This species is known to occur in clay or sandy soils.

No San Joaquin tiger beetles were found on the alignment/sites. This species has very low population numbers. Very little undisturbed habitat exists along the alignments. It is unlikely to occur along the project sites.

G.3.c Hopping's blister beetle, (*Lytta hoppingi*)

Ducor is the only quad in which this species is recorded.

This species generally occurs in foothill habitats in the western San Joaquin Valley; feeding on flowers from March through June.

No Hopping's blister beetles were found on the alignment/sites. Little habitat for this species exists on the alignment/sites.

G.3.d Molestan blister beetle, (*Lytta molesta*)

Lindsay is the only quad in which this species is recorded.

This feeds on flowers in the summer and fall, mostly composites. San Joaquin Valley from Contra Costa County south to Tulare and Kern Counties.

No Molestan blister beetles were found on the alignment/sites. Little to no habitat for this species exists on the alignment/sites. There is a lengthy history of disturbance at the alignment/sites, leaving them poor habitat for most special status species and unlikely for any occurrences.

G.3.e Morrison's blister beetle (*Lytta morrisoni*)

There are 3 quads recording the presence of this species in this part of Tulare County: Pixley, Porterville, and Tipton. Has been observed feeding on *Gilia tricolor* and *Linanthus liniflorus*.

No Morrison's blister beetles were found on the alignment/sites. There is a lengthy history of disturbance at the alignment/sites, leaving them poor habitat for most special status species and unlikely for any occurrences.

G.3.f An andrenid bee (*Andrena macswaini*)

There are two quads that record the presence of this species: Tulare and Tipton.

No andrenid bees were found on the alignment/sites. It is possible that fallow fields and dry pastures along the alignments harbor this species.

G.4 SPECIAL STATUS AMPHIBIANS AND REPTILES

G.4.a Western spadefoot (*Spea Hammondi*) DFG SSC

This species was not observed on the sites. The sites provide little to no habitat for this species. The twelve quad CNDDDB printout includes three occurrences of western spadefoot on the Monson, Woodlake and Ivanhoe quads, several miles from the project site. Anecdotal accounts not represented in CNDDDB also document Western spadefoots on property with grassland/vernal pool habitat at the Sequoia Riverlands Trust's Herbert Wetland Prairie Preserve approximately three miles west of the site (Section 7 and Section 18, Township 20 South, Range 26 East, B. Kamansky, field notes).

No Western spadefoots were found on the alignment/sites. Western

spadefoots are found primarily in annual grasslands with vernal pools. No vernal pools occur on the alignment/sites. Western spadefoot is unlikely to occur on the alignment/sites because there are no grasslands with vernal pools located anywhere on or adjacent to the alignment/sites. The closest suitable habitat for this species is noted in the above paragraph. Surveys were conducted during the summer months after an extended drought period. If preconstruction surveys detect wetlands on or adjacent to the site, avoidance measures for this species may be required.

G.4.b San Joaquin whipsnake (*Masticophis flagellum ruddocki*) SSC

This species only has been identified within the Pixley quad. This species is often associated with grassland and saltbush scrub, of which grassland does occur with low frequency along the project boundary.

No San Joaquin whipsnakes were found on the alignment/sites. The appropriate habitat may occur on the sites/alignment but in very small patches.

G.4.c Blunt-nosed leopard lizard (*Gambelia silia*) Fed Endangered, State Threatened, FP

This species' records are from the Pixley and Tipton quads. Very little undisturbed habitat exists along the alignment sites.

No blunt-nosed leopard lizards were found on the alignment/sites. There are no recent records for this species in the area and very little undisturbed habitat exists in the project footprint.

G.4.d Coast horned lizard (*Phrynosoma blainvillii*) SSC

This species has been observed within the Pixley and Tipton quads. The dry pastures that are along the alignment/sites could provide suitable habitat for this species although these sites are very small and may have been disturbed in the past.

No coast horned lizards found on the alignment/sites.

G.5 SPECIAL STATUS BIRDS

G.5.a Swainson's hawk (*Buteo swainsoni*) (nesting) State Threatened

In the edited text on Swainson's hawk below, passages most pertinent to the alignment/sites are highlighted in *italics* type:

Swainson's hawks prefer open habitats. These include: mixed and short grass grasslands with scattered trees or shrubs for perching; dry grasslands; irrigated meadows; and edges between two habitat types (ecotones). Within California, Swainson's hawks favor agricultural areas, (particularly alfalfa fields), juniper-sage flats, riparian areas, and oak savannas. Over 95% of the nesting sites for this species are estimated to be on private lands. In the summer months, Swainson's hawks primarily eat insects, birds, and small mammals, occasionally taking reptiles, amphibians, and other invertebrates.

During migration and in the winter, the hawk's diet consists mainly of insects. The hawks appear to exploit the abundance of prey made available due to the effects of certain farming activities. *Within California, Swainson's hawks begin nesting in late March and the young usually leave the nest by the end of July.* In the Central Valley they [typically] nest in riparian areas. This association with riparian habitat is most likely due to the lack of trees in intensively cultivated and industrially-developed areas. (To view a species profile for Swainson's hawk, see the Endangered Species Recovery Program (ESRP) online Web URL:

<http://esrpweb.csustan.edu/speciesprofiles/profile.php?sp=busw>).

In Tulare County and Kings County, the local range of this State threatened species is an approximately 625 square mile region bounded by Cross Creek (at Highway 99), 14½ Avenue just north of Nevada Avenue, Corcoran, Angiola, Alpaugh, Tipton, and Inside Creek (at Highway 137, Hansen 2005d).

The summary CNDDB printout (Table 2) includes a Swainson's hawk nest record on the Cairn's Corner Quad, several miles to the west of the subject sites. A nest was observed in 2010-2012 along Inside Creek, approximately four miles to the west of the alignments (B. Kamansky field notes).

In Tulare County and Kings County, more than 33 Swainson's hawk nests have been located in isolated trees or small groves of eucalyptus (18), valley oak (8), Fremont's cottonwood (4), Goodding's black willow (3), and deodar cedar (1). Nest trees stand in (or adjacent to) open agricultural land (16), along riparian corridors or irrigation channels (16), or at the edge of a tailwater pond (1). Foraging habitat surrounding the nest trees is chiefly alfalfa or other row crops (30) but also includes expanses of grassland and scrub habitat (3) (Hansen 2005d).

No Swainson's hawks were observed on the alignment/sites during the June and July, 2014 field surveys. Even though there are many trees on the alignment/sites. Swainson's hawks do not regularly nest in the immediate vicinity, but do nest within five miles of the sites and several nests have been recorded (primarily to the west) within a 10-mile radius of the alternatives. Good foraging habitat exists in alternatives #1 and #3. Appropriate avoidance measures should be employed such as pre-construction surveys for this and other raptors for the potential project sites.

G.5.b Western burrowing owl (*Athene cunicularia*) SSC

Records for this species are on the Cairns Corner, Pixley, Porterville, Sausalito School, Tipton, Tulare and Woodville quads. This species prefers short grass prairie and other sparsely-vegetated areas where foraging is optimal. There are a number of suitable foraging and nesting sites along all of the project alternatives.

No western burrowing owls were found on or near the alignment/sites. It is possible that they could be denning and foraging in the fallow fields or field edges that exist in all three alternatives, but were not detected. They might also move into the areas prior to construction. Preconstruction surveys for the selected alternative shall be required to determine if this species is present before construction.

G.5.c Tri-colored blackbird (*Agelaius tricolor*) SSC, ST

This species' record is from the Pixley quad. They often forage and nest on agricultural lands. Several dairies in Alternative #3 may harbor habitat for this species.

No tri-colored blackbirds were observed on the alignment/sites. This is a highly mobile species that could move into the project area before

construction, however.

G.5.d Mountain Plover (*Charadrius montanus*) SSC

This species has been observed in the Pixley Quad. They are winter migrants in the San Joaquin Valley and often forage on in grasslands, especially large, burned grasslands.

No mountain plover were seen on the alignment/sites. As this species occurs in the area seasonally, it was not expected to be present during the survey in July. Due to the low number of large, burned grasslands along the alignment/sites, it is unlikely to occupy the sites. However, if the construction period extends into the fall, winter and spring, pre-construction surveys should indicate if this species is present and propose avoidance measures.

G.6 SPECIAL STATUS MAMMALS

G.6.a Hoary bat (*Lasiurus cinereus*)

The Ducor Quad has records for this species.

Hoary bats occur in a variety of habitats including grasslands, shrublands, woodlands, and forests; they are most common in dry open habitats with trees for roosting. This species was not observed on the site. The site may provide some foraging habitat for this species. Plenty of these types of habitats are present along all three alternatives.

No hoary bats were observed during the field survey along the proposed Plainview Wastewater project alternatives boundary.

G.6.b San Joaquin pocket mouse (*Perognathus inornatus inornatus*) Fed Endangered, State Endangered

The Pixley, Sausalito School and Tipton quads have records of this species. This species is known to inhabit grasslands. Much of this species' habitat has been diminished to small patches.

No San Joaquin pocket mice were observed on the alignment/sites. As suitable habitat was only observed in very small patches on the edges of farm fields and fallowed or unfarmed pastures, it is unlikely this species occurs on the sites.

G.6.c Tipton's Kangaroo rat (*Dipodomys nitroides nitratoides*) Fed

Endangered, State Endangered

Two quads, the Cairn's Corner and the Woodville quads have records for this species. This species' habitat consists of annual grasslands and alkali sink scrub. While annual grassland exists on the site, typical habitat for this species in this part of Tulare County wasn't widespread and there are only a few records for this species in Tulare County.

This species was not expected to occur on the site, because soil types and other critical features are absent on the alignment/sites. This species is also very flood-intolerant and would likely have been extirpated in the frequent floods in the area, had it once been present nearby. *No Tipton's kangaroo rats were found on the alignment/sites.*

G.6.d San Joaquin kit fox, (*Vulpes macrotis mutica*) Fed Endangered, State Threatened

Records of San Joaquin kit fox in this part of Tulare County come from eight quads: Cairns Corner, Exeter, Ducor, Lindsay, Pixley, Tulare, and Woodlake. These widespread occurrences suggest foraging activity and limited denning activity. However, there is at least one record from Exeter, less than five miles north of the alignments, of denning and foraging in orange groves.

ESRP text on San Joaquin kit fox below, passages most pertinent to the alignment/sites are highlighted in *italics* type:

San Joaquin kit foxes inhabit grasslands and scrublands, many of which have been extensively modified. Types of modified habitats include...grazed annual grasslands. Oak woodland, alkali sink scrubland, and vernal pool and alkali meadow communities also provide habitat for kit foxes. Dens are scarce in areas with shallow soils because of the proximity to bedrock, high water tables, or impenetrable hardpan [or claypan] layers. Kit foxes are active year-round and are primarily nocturnal. (To view a species profile for San Joaquin kit fox, see the Endangered Species Recovery Program (ESRP) online Web URL: <http://esrpweb.csustan.edu/speciesprofiles/profile.php?sp=vuma>)

No San Joaquin kit fox were observed during this field survey. No evidence of San Joaquin kit fox denning activity was found anywhere on the alignment/sites during this biological evaluation. No known kit fox dens (or confirmed kit fox den sign) were detected on any of the surveys. There was no evidence of kit fox tracks or scat anywhere on the

alignment/sites.

San Joaquin kit fox is a special status animal species which is known to occur regionally. *San Joaquin kit fox may occasionally pass through the site while foraging* but, based on habitat characteristics and prey availability, *this species would not be expected to den on the alignment/sites. The alignment/sites do not provide important intrinsic habitat values unique to the area.* This part of Tulare County is not considered good denning habitat for this species. The most recent records of denning activity were in orange groves south of Exeter, in 1994. This species may make its way into this part of Tulare County infrequently. However, this species absence cannot be ruled out at this time and if currently absent, could move into the area prior to construction.

G.6.e American badger (*Taxadia taxus*), SCC

There is one quad with this species recorded: Porterville.

Habitat for this species exists on the alignment/sites and this species could possibly utilize the site for foraging and denning. *No American badgers were found on the alignment/sites.*

Badgers are known to move along dry riparian corridors such as the Porter Sough and Tule River, but little suitable habitat exists for this species along the lower portions of these streams. Small patches of potential habitat were found on all alternatives.

H. IMPACT ANALYSIS AND MITIGATION

H.1 SIGNIFICANCE CRITERIA

General plans, area plans, and specific projects are subject to the provisions of the California Environmental Quality Act (CEQA) to assess the impacts of proposed projects on the environment before they are constructed. For example, site development may require the removal of some or all of a site's existing vegetation. Animals associated with this vegetation could be destroyed or displaced. Plants and animals adapted to humans, roads, buildings, pets, etc. may replace those species which formerly occurred 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. These impacts may be considered significant or not. According to Guide to

the California Environmental Quality Act (Remy et al. 1999), “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 will:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species (including threatened and endangered 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;
- 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 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, or other approved local, regional, or state habitat conservation plan (Remy et al. 1999).

Furthermore, CEQA Guidelines Section 15065 states that a project may trigger the requirement to make a “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.”

In a Draft EIS/EIR prepared for a Project in Kings County by the United States Army Corps of Engineers (USACE), the document states,

For this section [Section 4.12 Effects on Endangered Species], any project action which would affect the continued existence of an endangered or threatened species or a species of special concern is considered to be a significant adverse affect [*sic*].

If the Agency can demonstrate that potential impacts to biological resources will be avoided then these impacts should be considered less-than-significant for the purpose of a CEQA review.

H.2 RELEVANT GOALS, POLICIES, AND LAWS

H.2.a Threatened and Endangered Species

State and federal “endangered species” legislation has provided DFW and the USFWS with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal endangered species acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as “species of special status”. Permits may be required from both the DFW and USFWS if activities associated with a proposed project will result in the “take” of a listed species. “Take” is defined by the state of California as “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill” (California Fish and Game Code, Section 86). “Take” is more broadly defined by the federal Endangered Species Act to include “harm” (16 USC, Section 1532 (19), 50 CFR, Section 17.3). Furthermore, the CDF&G and the USFWS are responding agencies under the California Environmental Quality Act (CEQA). Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues to make project-specific recommendations for their conservation.

H.2.b Migratory Birds

State and federal laws also protect most birds. The Federal Migratory

Bird Treaty Act (FMBTA: 16 U.S.C., sec. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

Construction disturbances 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 DFW.

H.2.c Birds of Prey

Birds of prey are also protected in California under provisions of the State Fish and Game Code, Section 3503.5,(1992), 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 disturbances 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 DFW.

H.2.d Wetlands and Other “Jurisdictional Waters”

Natural drainage channels and wetlands are considered “Waters of the United States” (hereafter referred to as “jurisdictional waters”). The U.S. Army Corps of Engineers (USACE) regulates the filling or grading of such waters under the authority of Section 404 of The Clean Water Act (Wetland Training Institute, Inc. 1990). The extent of jurisdiction within drainage channels is defined by “ordinary high water marks” on opposing channel banks. Wetlands are habitats with soils that are intermittently or permanently saturated, or inundated. The resulting anaerobic conditions select for plant species known as hydrophytes that show a high degree of fidelity to such soils. Wetlands are identified by the presence of hydrophytic vegetation, hydric soils (soils saturated intermittently or permanently saturated by water), and wetland hydrology according to methodologies outlined in the 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987).

All activities that involve the discharge of fill into jurisdictional waters are

subject to the permit requirements of the USACE (Wetland Training Institute, Inc. 1991). Such permits are typically issued on the condition that the applicant agrees to provide mitigation that results in no net loss of wetland functions or values. No permit can be issued until the Regional Water Quality Control Board (RWQCB) issues a certification (or waiver of such certification) that the proposed activity will meet state water quality standards. The RWQCB is also responsible for enforcing National Pollution Discharge Elimination System (NPDES) permits, including the General Construction Activity Storm Water Permit. All projects requiring federal money must also comply with Executive Order 11990 (Protection of Wetlands).

The DFW has jurisdiction over the bed and bank of natural drainages according to provisions of Section 1601 and 1603 of the California Fish and Game Code (California Department of Fish and Game 1995). Activities that would disturb these drainages are regulated by the CDF&G via a Streambed Alteration Agreement. Such an agreement typically stipulates that certain measures will be implemented which protect the habitat values of the drainage in question.

H.3 ENVIRONMENTAL IMPACT/MITIGATION

H.3.a (checklist question IVa) Will the activity on the sites 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?

Thirty-nine (39) Special Status Species are known to occur in the vicinity (the 12-quad area analyzed in this evaluation). Nineteen (19) Special Status animal species are known to occur in the general vicinity of the proposed Plainview Wastewater System (the action area). Field surveys conducted during this biological evaluation did not document the presence of any Special Status animal or plant species occupying the alignment action areas, but Swainson's hawks have established nests within 10 miles of the site in the last 10 years and other raptors such as white-tailed kite, red-tailed hawks, great-horned owls and barn owls are all known to forage and nest in the vicinity. Badgers, kit foxes and potentially other mammals could occupy the sites or move into the

sites prior to construction. All of the options have the potential to impact Special Status Species.

Twenty (20) Special Status plant species were included in the CNDDDB printout for the twelve relevant quadrangles. Elderberries are present on Alternative #3, but the Valley elderberry long-horned beetle populations in Tulare County are no longer listed under the Endangered Species Act.

A single native plant community, Northern claypan Vernal Pool, was listed in the CNDDDB. No vernal pools were observed along any of the alternatives.

If the Agency decides to pursue Alternative #1, the project may impact raptor nesting and foraging habitat, burrowing owls and migratory bird species.

If the Agency decides to pursue Alternative #2, the project may impact raptor nesting and foraging habitat, burrowing owls, migratory bird species, badgers, kit foxes, special status plant species and wetlands.

If the Agency decides to pursue Alternative #3, the project may impact raptor nesting and foraging habitat, burrowing owls, migratory bird species, badgers, kitfoxes, wetlands and special status plant species.

H.3.b Impacts on Special Status Plant Species? (checklist question IVa)

Impact

Twenty (20) Special Status plant species are listed in the CNDDDB for the area. No Special Status plant species were detected during surveys along any of the alignments/action areas. Small patches of potentially suitable habitat exist along alternatives #2 and #3. Extreme drought may preclude detection during surveys at this time.

Avoidance

No impacts to Special Status plant species are anticipated, however, small potentially suitable patches of habitat exist along alternatives #2 and #3. As a measure to ensure that no species occur in these areas prior to construction, if either alternatives #2 or #3 are selected, pre-construction surveys shall be required before construction. Surveys should be timed to coincide with flowering periods for species that could

occur (March-May).

Minimization

Because no impacts to Special Status plant species are anticipated, no minimization is required, but see above measures as well. If pre-construction surveys detect special status plant species, transplantation, project modification and/or compensation shall be employed.

Compensation

No compensation is anticipated as part of the alternatives. If Special Status plant species are detected during pre-construction surveys in the action areas or impact footprints, compensation for impacts shall be required to compensate for impacts.

Monitoring

No monitoring is required. If pre-construction surveys detect plant species along the alignments/action areas, or impact footprints, but can be avoided, construction monitoring shall be required to ensure avoidance of those sensitive areas.

H.3.c Impacts on Special Status Animal Species? (checklist question IVa)?

Impact

Nineteen (19) Special Status animal species are known to occur in the general vicinity of the proposed Plainview Wastewater System alternatives (the action area). Field surveys conducted during this biological evaluation *did not* document the presence of any special status animal species on the alignment/sites. But Swainson's hawks have established nests within 10 miles of the site in the last 10 years and other raptors such as white-tailed kite, red-tailed hawks, great-horned owls and barn owls are all known to forage and nest in the vicinity. Badgers, kit foxes and potentially other mammals could occupy the sites or move into the sites prior to construction. All of the options have the potential to impact Special Status animal species.

Avoidance

Habitat for several Special Status animal species, including kit fox and badger, were found in the action area and the site provides habitat for other protected species such as raptors (detailed below). The various

alternatives could have small, but potentially significant impacts regional populations of these species. Impacts to all kit fox dens, potential raptor nests and other animals located along the alignments shall be avoided. Since habitat for Special Status animal species occurs on the subject property, avoidance, minimization and mitigation measures are warranted.

Minimization

Minimization measures assume that some level of impact will occur (that some level of disturbance occurs). Under this approach, the Agency shall consult with DFW/USFWS. As the Agency initiates this process they can offer to perform the following measures as part of their permitting process with the agencies in order to help minimize impacts to the kit foxes, raptors and other species:

- Revegetate disturbed areas with trees and grass from on the site or adjacent areas;
- Conduct employee education programs to inform workers about sensitive biological resources they may encounter and what they should do to minimize potential impacts.

Monitoring

If pre-construction surveys detect listed or protected species along any of the project alternatives, while construction occurs, a biologist will need to be onsite to educate workers, monitor compliance, best management practices and to identify and protect natural resources, including Special Status Species. The monitor will be responsible for ensuring that appropriate measures are taken to prevent disturbance of core avoidance areas. Any unauthorized take of Special Status species will be immediately reported to DFW by the monitor. The monitor will also notify the Project Coordinator who will stop work until corrective measures are implemented.

The designated Project Coordinator and the designated monitor for this Project will need to be established if Agency decides to pursue mitigation and monitoring.

Mitigation

Since take of Swainson's hawks, other raptors, kit foxes and badgers as a result of any project-related construction or earth-moving work would be considered a significant environmental impact, impacts to all raptors,

foraging habitat, nest trees, animals and dens located on the site shall be avoided, or compensated to bring impacts below the level of significance. In order to avoid impacts to animals, the Agency shall take the following three steps:

1. The Agency should initiate informal consultation with DFW, USFWS if applicable. This means that the Agency will need to communicate with and coordinate its activities with a DFW/USFWS biologist who is specifically assigned to deal with these issues in this part of California. That biologist can clarify, for KEC or Agency's engineer, if other measures are required for avoidance.
2. During this biological evaluation, KEC examined the subject property for any Special Status Species. Though only raptors were detected, badgers, kit foxes and other species could move into the area. Therefore, if the Agency decides to pursue the "avoidance" approach, pre-construction surveys and construction monitoring are required. This level of survey detail will be required in order for the Agency to complete the next step (step 3) in avoidance.
3. Perform construction during a time when the species are less likely to be disturbed (see also section under raptors below).
4. Follow all disturbance activities with native species revegetation.

During any construction activities, dens and raptor activity areas shall be designated as an avoidance area that will need to be protected from disturbance or monitored avoided and/or excavated in coordination with DFW. This avoidance area shall be clearly defined by erecting exclusionary fences or flagging with orange geo-webbing nor ribbon prior to construction. Any construction-related disturbance within the buffer zone shall be minimized and promptly restored to its original condition following construction. DFW shall be provided with a map and written details identifying avoidance areas.

If avoidance measures are implemented appropriately no mitigation for special status species is anticipated as a result of the activity. However, in the event that Swainson's hawks' foraging or nesting habitat or other protected or listed species are impacted, then mitigation, compensation and consultation shall be required.

Although San Joaquin kit foxes been reported in the CNDDB, the alignments/action areas are not considered prime kit-fox habitat and kits foxes do not frequent the area. However, kit fox den was detected near Exeter in 1994 in an orange grove. Thus, kit foxes have been known to den in areas with habitat such as the action areas/alignments.

Swainson's hawks could forage in the alignments/action areas and in the adjacent agriculture fields to the south and nest adjacent to the site. DFW should be consulted in order to determine appropriate mitigation measures for that species in the event that foraging habitat will be impacted or if nests are detected. Preconstruction surveys shall be conducted before any ground-disturbing activities are to begin. If the surveys detect the presence of listed or protected species or migratory birds, then the Project will be paused until appropriate measures or consultation with the USFWS/DFW can take place.

If preconstruction surveys find that no special-status species are present within the selected alternative alignment/action area, then construction may proceed. The agency shall implement the following environmental protection measures to reduce environmental consequences associated with construction.

Environmental Protection Measures

The United States Fish and Wildlife Service (USFWS) approved pre-construction protocol level surveys for San Joaquin kit fox shall be conducted no fewer than 14 days and no more than 30 days prior to the onset of any ground-disturbing activity (USFWS 1999). The Agency shall follow standardized Recommendations for Protection of the San Joaquin kit fox prior to and during ground disturbance (USFWS 1999). These surveys can also detect raptors, migratory songbirds and any other Special Status Species in the area and recommend any additional appropriate avoidance and minimization measures.

If activities take place during avian nesting season (March 1 - August 1), a qualified biologist shall conduct nest surveys within a 500-ft radius of the construction site for netropical migratory birds and 0.5 mile for Swainson's hawks (USFWS 1994). Appropriate measures shall be determined in consultation with the California Department of Fish and Wildlife (DFW) in the event an active nest is located in an area subject to disturbance. No restrictions are required for avian species for construction activities that occur during the non-breeding season

(September 1 through February 28) or after the young have fledged, determined based on surveys.

H.3.d Adverse Effects on Riparian Habitat or other Sensitive Natural Communities? (Checklist question IVb) Will the a potential wastewater pipeline construction 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 or U.S. Fish and Wildlife Service?

Impact

Most of the sites area cultivated areas and previously farmed or disturbed grassland. If the County decides to pursue the Proposed Plainview Wastewater System, it would have a small impact on the grasslands and cultivated ground existing on the sites. If the County can avoid impacts to Special Status Species, impacts will be less than significant. On alternative #3, any excavation and of the Tule River and Porter Slough could impact American badger habitat, nesting and foraging raptors and other species. The designed excavation area will be 4.5 feet deep by 20 feet wide (approximately 0.025 acres of riparian habitat and wetland impact).

Appropriate avoidance measures such as pre-construction surveys and construction monitoring will provide adequate protection measures. If permanent impacts to habitats occur, mitigation to compensate for the impacts shall be required. Wetlands (a sensitive habitat, detailed below.) also exist on Alternative #2, the preferred alternative, at the existing Lindsay Treatment Plant (see map in Appendix). The Lindsay gravity lift stations will be in a hole 14 feet by 14 feet by 20 feet at deepest and six feet at shallowest (approximately 0.05 acres of wetland impacts, depending on where the pump is situated). There will be a six feet by six feet valve box and a small motor control panel that is six feet by 1.5 feet wide.

Mitigation

The County shall revegetate disturbed areas with native plants after excavation and construction in the areas of Porter Slough and the Tule River. Planting trees in addition to native grassland species could increase the habitat value of the site if the County planted native species

subsequent to construction along grasslands and waterways.

The following species are appropriate for revegetation efforts near riparian areas:

Trees

Valley oak (*Quercus lobata*)

Western sycamore (*Plantanus racemosa*)

Sandbar willow (*Salix sp*)

Arroyo willow (*Salix sp.*)

Fremont's cottonwood (*Populus fremontii*)

Buttonwillow (*Cephalanthus occidentalis*)

Grasses and Forbs

Creeping wildrye (*Leymus triticoides*)

Saltgrass (*Distichlis spicata*)

Alkali sacaton (*Sporobolus aeroides*)

Barbar sedge (*Carex barbarae*)

Gumplant (*Grindelia camporum*)

Goldenrod (*Euthamia californica*)

California coneflower (*Anemopsis californica*)

H.3.e Adverse Effects on Federally Protected Wetlands?

(Checklist question IVc) Will the potential Project 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?

Impact

No marshes, vernal pools or other wetlands occur on Alternative #1, but Alternative #3 crosses two a wetlands (see Figure 1, index photograph 4 and NWI maps in Appendix): Porter Slough and the Tule River and Alternative #2 includes wetlands at the existing Lindsay Treatment Plant (see index photograph 1 and NWI wetlands map in Appendix).

The Lindsay gravity lift stations will be in a hole 14 feet by 14 feet by 20 feet at deepest and six feet at shallowest (approximately 0.05 acres of wetland impacts, depending on where the pump is situated). There will be a six feet by six feet valve box and a small motor control panel that is six feet by 1.5 feet wide.

Excavation of these wetlands for the pipes would result in temporary impacts to these wetlands. Impacts range from hydrological interruption, bank and stream bottom disturbance, etc.

Mitigation

Excavation for the lift pumps at the existing Lindsay Treatment Plant will impact approximately 0.05 acres of wetland. Excavation for the pipeline will also result in temporary disturbance to approximately 0.025 acres wetland in the stream channels of Porter Slough and the Tule River. These impacts appear to be below the 0.1 threshold of impact to require mitigation. If impacts to wetlands can be minimized, impacts mitigated and conditions restored, potential excavation/construction *will not result in substantial adverse effect* on wetlands.

H.3.f Interference with Wildlife Movement and Wildlife Corridors? (checklist question IVd) Will the potential project 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?

Impact

The alternatives/action areas are on the Oaks to Tules riparian corridor (primarily #3), but the proposed actions have limited scope and should not obstruct wildlife movement more than temporarily or not at all.

A considerable amount of open space lands in the vicinity of the subject property will continue to be used by native species for home range and dispersal movements. Therefore, potential pipeline construction will result in a less than significant effect on regional wildlife movements.

Mitigation

Because the potential alternatives will result in a less than significant effect on regional wildlife movements, mitigation measures are not considered warranted.

H.3.g Substantial Reductions in Fish & Wildlife Habitat? (checklist question XVIIIa) Will the potential alternatives reduce substantially the habitat of a fish or wildlife species, including causing a fish or wildlife population to drop below self-sustaining levels or threaten to eliminate an animal community?

Impact

Most of the sites are disturbed grassland and cultivated crops and trees. Potential Proposed Plainview Wastewater System alternatives could have a small effect on grassland, nesting and foraging raptors (all three alternatives), wetland and riparian woodland (Alternative #3). This could impact Special Status Species and protected habitats. Constructing the associated pipeline and lift pump station in alternatives #3 and #2, respectively could also result in temporary disturbance to wetlands. Potential ground disturbances shall be followed by revegetation with native species in these areas. Therefore, potential Project alternatives *would not result in substantial reduction in fish or wildlife habitat.*

Mitigation

Because construction will have a less than significant effect on habitat for common native wildlife occurring in this portion of Tulare County, mitigation measures for common species are not considered warranted. No fish or wildlife populations are likely to drop below self-sustaining levels because of potential activities. The potential projects do not threaten to eliminate any animal community, so mitigation measures for animal communities are not warranted.

H.3.h Conflicts with Local Policies or Ordinances?

(checklist question IVe) Will the potential Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Impact

The alternatives appear to be consistent with the General Plan Policies of Tulare County that are relevant to natural resource protection. No County ordinances protect the types of biological resources found on the subject property, except Special Status Species and riparian/wetland areas. Therefore, as long as the County consults with DFW, USFWS and the US Army Corps of Engineers and any other agencies on potential impacts to Special Status Species, then the three alternatives would not be in conflict with Tulare County General Plan policies or natural resource protection ordinances.

Mitigation

Because the alternatives appear to be consistent with the General Plan Policies of Tulare County relevant to natural resource protection,

mitigation measures further protecting biological resources are not considered warranted.

H.3.i Conflicts with Adopted Conservation Plans?

(checklist question IVf) Will the potential Project conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan?

Impact

Only three HCPs, and no NCCP, or conservation plan have been instituted (or proposed) for Tulare County. No conflicts to these potential or existing plans are expected. Therefore, the alternatives construction will not conflict with any such plan.

Mitigation

None required.

H.3.j Degradation of Water Quality?

(checklist question IX a, c, d, e, f) Will a potential Project result in the degradation of water quality in seasonal creeks, reservoirs and downstream waters?

Impact

The excavation of loose soils often creates conditions conducive to erosion and the concomitant deposition of sediment in adjacent drainages. The current design for all three alternatives will have very little impact on water quality. Impacts will be focused on wetland and riparian habitat in alternatives #2 and #3.

The County shall protect water quality by replacing disturbed soil and replanting with native species in areas at risk for erosion (wetlands and riparian areas, for example). Potential impacts to water quality in seasonal creeks, reservoirs and downstream waters will be minimized if these measures are implemented.

Mitigation

With revegetation and other minimization measures, the potential alternatives will result in a less than significant impact on water quality in nearby creeks and rivers and mitigation measures are not considered

warranted.

H.3.k Disturbance to Active Raptor Nests?

Will construction activities during potential Project implementation disturb any active raptor nests?

Impact

The area immediately adjacent to all three alternatives currently does provide nesting and foraging habitat for raptor species such as red-tailed hawks and possibly Swainson's hawks. Preconstruction surveys shall be required to avoid any raptor impacts if construction occurs during breeding season.

Avoidance

The Migratory Bird Treaty Act (MBTA) protect raptors from disturbances. Swainson's hawks are found in the grasslands and agricultural lands of California's Central Valley during the spring and summer. They exhibit a high degree of nest site fidelity and nests are constructed in trees, and include Fremont cottonwood (*Populus fremontia*), willow (*Salix* spp.), Valley oak (*Quercus lobata*), and eucalyptus (*Eucalyptus* spp.) (Bloom 1980). The nesting season for Swainson's hawk occurs from March 1 through September 15. This species spends large amounts of time soaring over grasslands and agricultural fields in the Central Valley and can travel up to 29 kilometers to forage for prey (Estep 1989). Swainson's hawks will forage for prey in row crops (Estep 1989) on small mammals, insects, and birds.

Several CNDDDB-recorded occurrences indicate Swainson's hawk occur within a 10 mile radius of the subject property area (CNDDDB 2014 and B. Kamansky field notes) and other raptors may occur or forage on the site or nest adjacent to the site.

Preconstruction surveys shall be required to identify and avoid raptors and raptor nest as well as other species (see above). During any construction activities, any raptors shall be designated as an avoidance area that will need to be protected from disturbance or monitored and avoided in coordination with DFW. This avoidance area shall be clearly defined by erecting exclusionary fences or flagging with orange geo-webbing nor ribbon prior to construction. Any construction-related disturbance within the buffer zone shall be minimized and promptly

restored to its original condition following construction. DFW shall be provided with a map and written details identifying avoidance areas.

Mitigation

If avoidance measures are implemented appropriately no mitigation for raptors would be anticipated as a result of a potential Project. However, in the event that foraging habitat or nesting areas would be impacted, then mitigation, compensation and consultation shall be required.

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APPENDIX A: Plant and Animal List

**NATIVE AND INTRODUCED PLANTS AND ANIMALS
OBSERVED ON
ON THE PROPOSED PLAINVIEW WASTEWATER SYSTEM ALTERNATIVES
IN CENTRAL
TULARE COUNTY, CALIFORNIA**

Taxonomic nomenclature (except for several common names) and sequence of major taxonomic groups follows Hickman (1993). Within major taxa, Family and Genus names are listed alphabetically rather than in phylogenetic sequence.

Common names are principally those used by Abrams (1923-1947), Cooperative Extension (1978), Crampton (1974), Munz and Keck (1968), Niehaus (1976), and Texas A&M University Bioinformatics Working Group Biota of North America Program (1997).

Species observed includes species which were identified by tracks, dens, vocalizations, and other sign.

CSC = California State Species of Special Concern

I = an Introduced (aka invasive, exotic or non-native) species

Bird families and species are listed in phylogenetic order based on the Check-list of North American Birds: Species of Birds of North America from the Arctic through Panama, Including the West Indies and Hawaiian Islands. 7th ed. (American Ornithologist's Union, 1998).

Species Alt #1

Northern Mockingbird

House Finch

Western Kingbird

Puncture Vine (*Tribulus terrestris*)

Storksbill (*Erodium cicutarium*)

Russian Thistle

Bermuda grass (*Cynodon dactylon*)

Prickly Lettuce (*Lactuca serriola*)

Wall Barley (*Hordium murinum*)

Italian Ryegrass (*Lolium multiflorum*)

Soft Brome (*Bromus hordeaceus*)

West - Alfalfa

East - 17 large trees, leveled pasture (dry land), California
Ground Squirrel burrows
Northwest - dwelling with three large Chinese Pistachio and Figs
Southeast - Walnut grove

Species Alt #2

Western Kingbird
House Finch
Red-Tailed Hawk (2)

Eucalyptus - 80
Weeping Willow - 1
Valley Oak - 7
Sycamore - 2
Palm - 18
Ash - 2
Magnolia - 4
Deodar Cedar - 4
Pine - 6
Chinese Pistachio - 2

Species Alt #3

Raccoon
California Ground Squirrel

Cliff Swallow
Barn Swallow

Spiny Cocklebur (*Xanthium spinosum*)
Mulefat (*Baccharis salicifolia*)
Fremont Cottonwood (*Populus fremontii*)

Eucalyptus - 17
Valley Oak - 55
Sycamore - 2
Palm - 10+
Magnolia - 5
Deodar Cedar - 7
Pine - 8
Poplar -3
Elderberry - 220

PLANT SPECIES STATUS

TOTAL Number of NATIVE Species:	24
TOTAL Number of INTRODUCED Species:	22
GRAND TOTAL OF ALL PLANT SPECIES:	46

APPENDIX B: PHOTOGRAPHS



Photograph 1 and 2. Index number 1 in Figure 2, Lindsay Wastewater Treatment Plant ponds.



Photograph 3. Index number 2 in Figure 2. Area along the proposed alignment for Alternative #2. Note the large sycamore tree in the background.



Photograph 4. Index number 3 in Plainview. Freshly cut alfalfa on the Alternative #1 site.

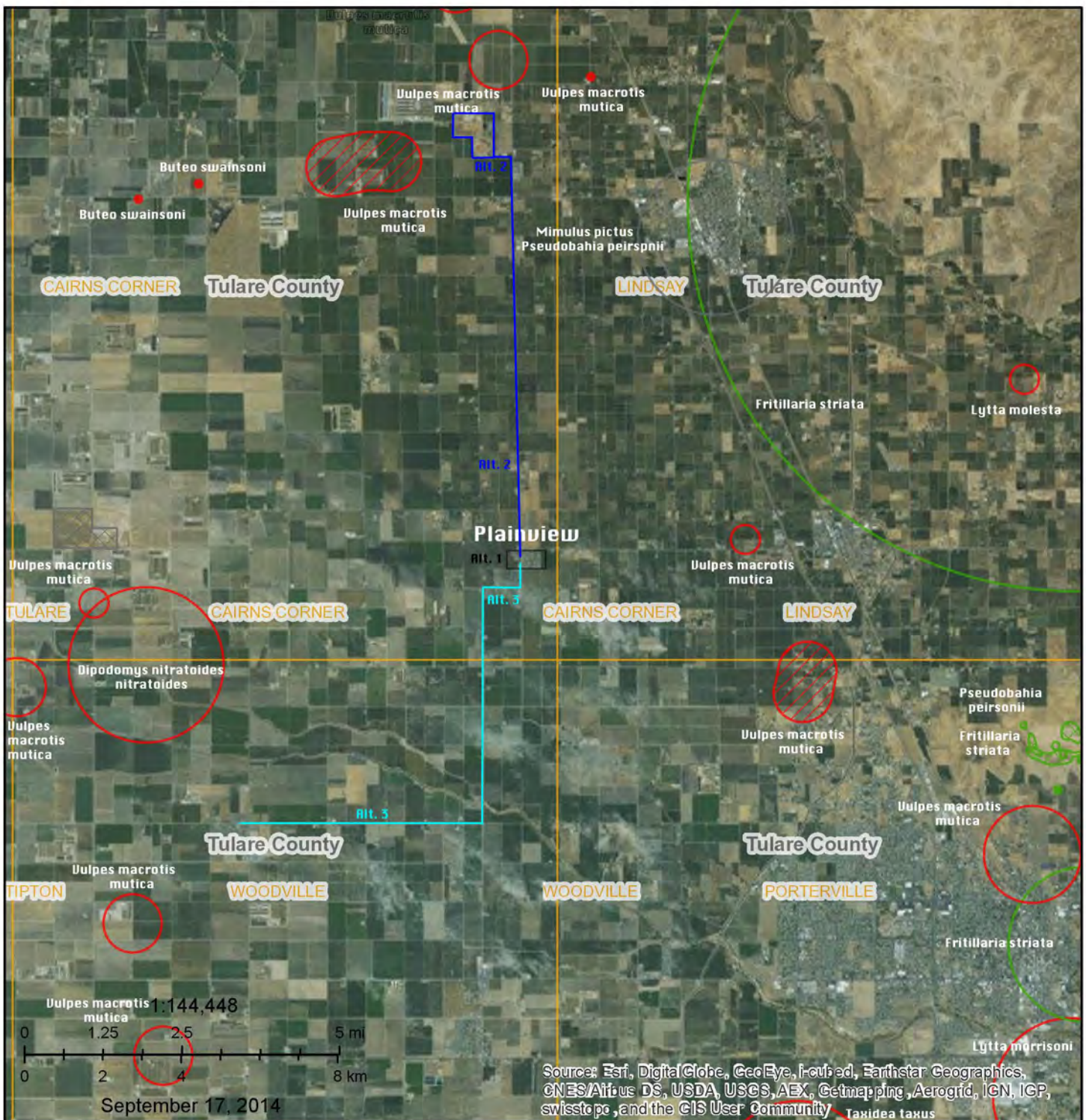


Photograph 5. A red-tailed hawk over alternative #3.

APPENDIX C: MAPS

- 1. California Natural Diversity Database Map**
- 2. National Wetlands Inventory Map**
- 3. Sensitive Areas Map**
- 4. Plainview WWTP Conceptual Layout**
- 5. Woodville Gravity Lift Design**
- 6. Force Main Lift Station**
- 7. Force Main Sewer Lift Station Road 196**
- 8. Road 196, Avenue 196 Force Main Lift Station**
- 9. Force Main Lift Station #2**

Map of Project Area

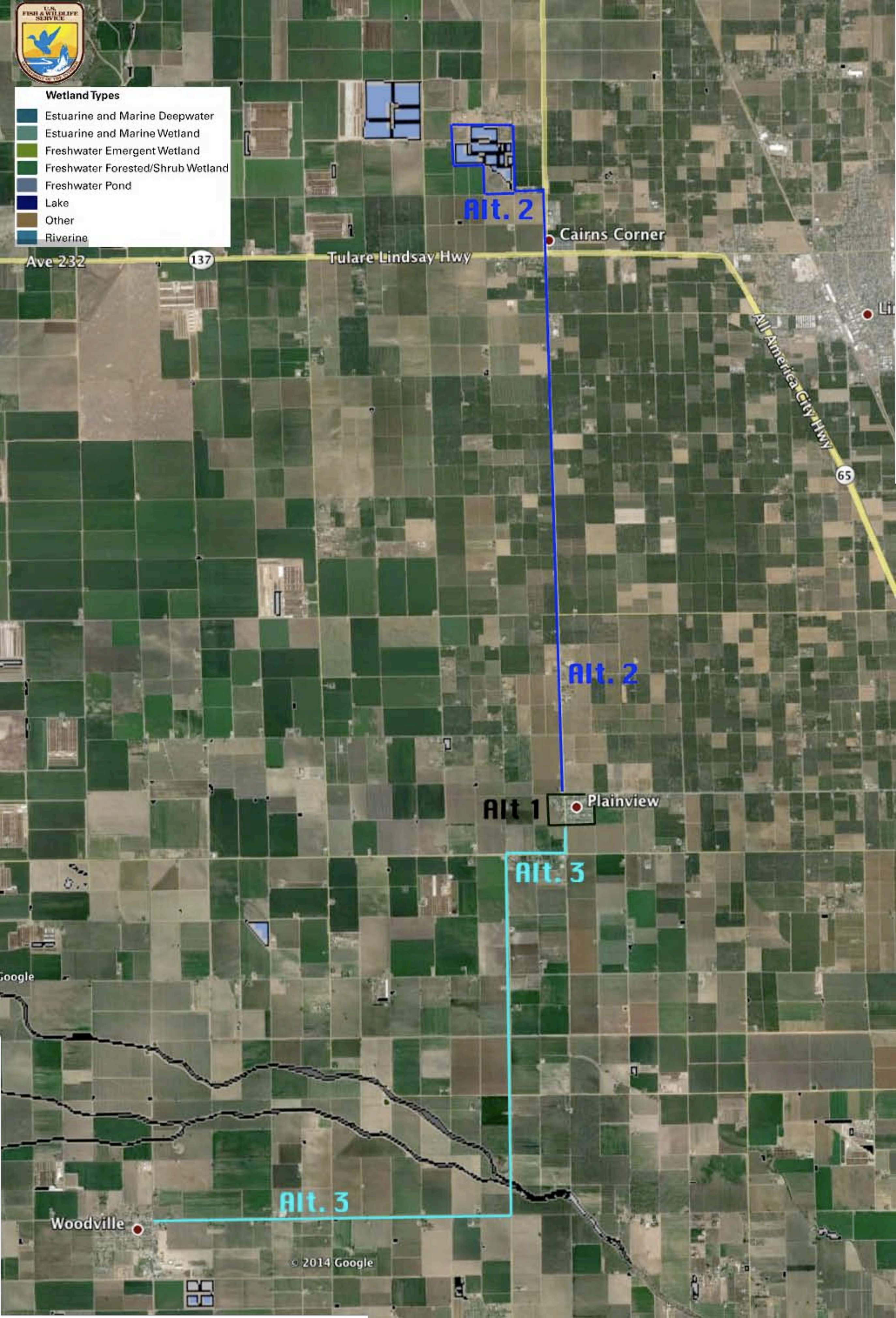


- | | | |
|-----------------------|----------------------------------|----------------------------------|
| Plant (80m) | Animal (circular) | Aquatic Comm. (non-specific) |
| Plant (specific) | Terrestrial Comm. (80m) | Aquatic Comm. (circular) |
| Plant (non-specific) | Terrestrial Comm. (specific) | Multiple (80m) |
| Plant (circular) | Terrestrial Comm. (non-specific) | Multiple (specific) |
| Animal (80m) | Terrestrial Comm. (circular) | Multiple (non-specific) |
| Animal (specific) | Aquatic Comm. (80m) | Multiple (circular) |
| Animal (non-specific) | Aquatic Comm. (specific) | Sensitive EO's (Commercial only) |



Wetland Types

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine





Know what's below.
Call before you dig.



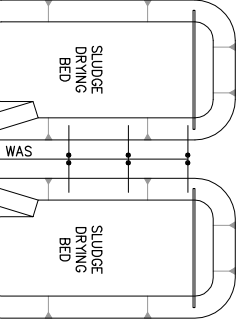
ROAD 200 / P AVENUE ALIGNMENT / DIRT ROAD

FRAZIER HWY / AVENUE 196

FROM PLAINVIEW

OPERATIONS &
ADMINISTRATION
BUILDING

SLUDGE
STORAGE PAD



LIFT STATION
FORCE MAIN
INFLUENT

WWT

SCUM

HEADWORKS

DRAIN

DO

BLOWER
BUILDING

RAS/WAS
PUMP
STATION

CLARIFIER

EFFLUENT

BIOLOGIC
POND

POND 2

POND 1

930'-0"

1238'-0"



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FIGURE 36

No.	REVISION	BY	DATE
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PLAINVIEW WASTEWATER SYSTEM
PROJECT FEASIBILITY REPORT
TULARE COUNTY
TULARE COUNTY, CA

PLAINVIEW WWTP CONCEPTUAL LAYOUT

EST. 1963

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MICHAEL G. TAYLOR

LICENSE NO:

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DRAFTED BY:

STG

CHECKED BY:

LJP

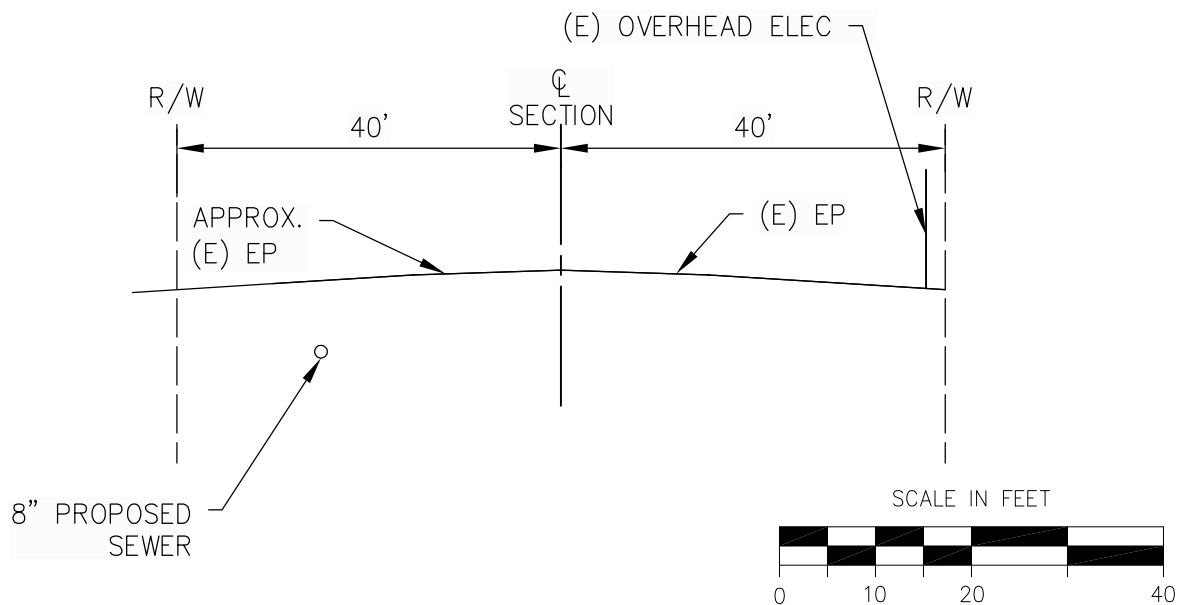
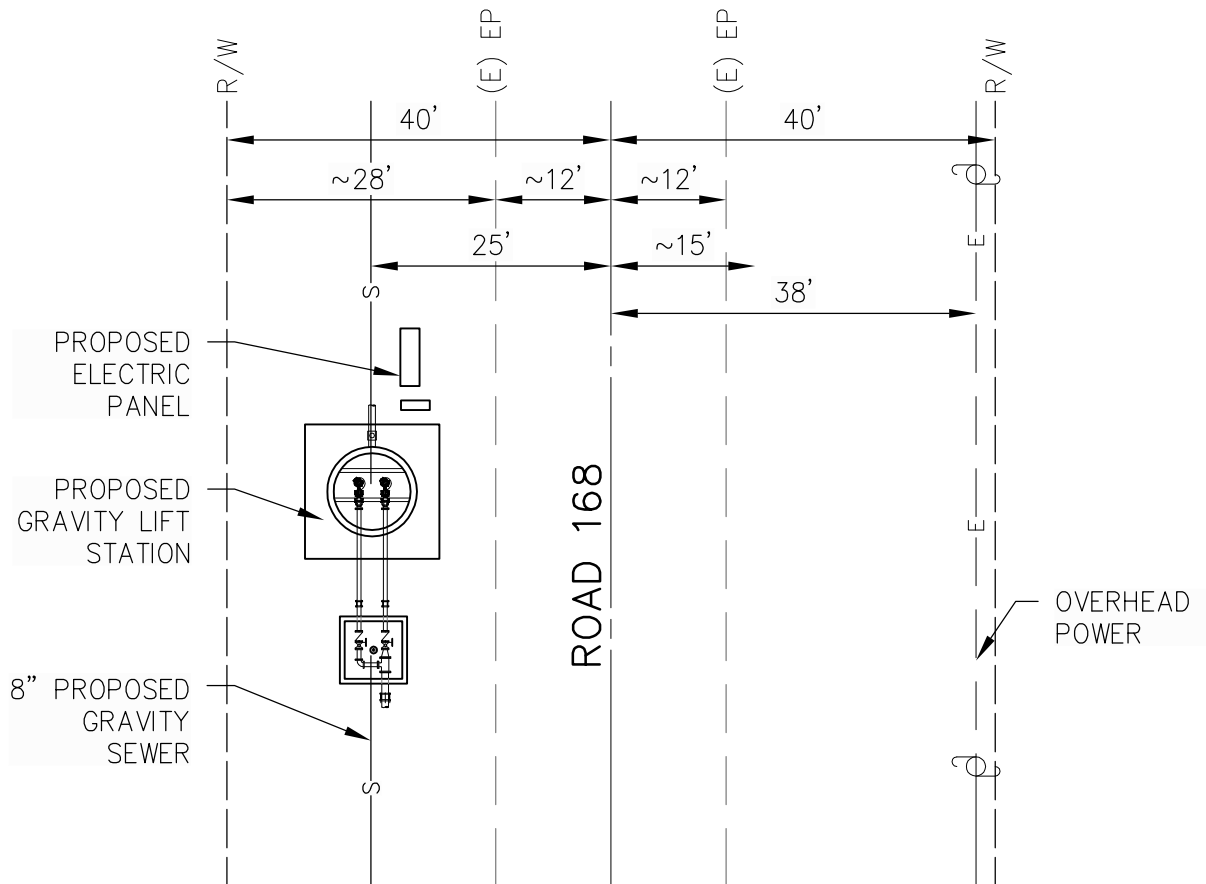
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FIG 36



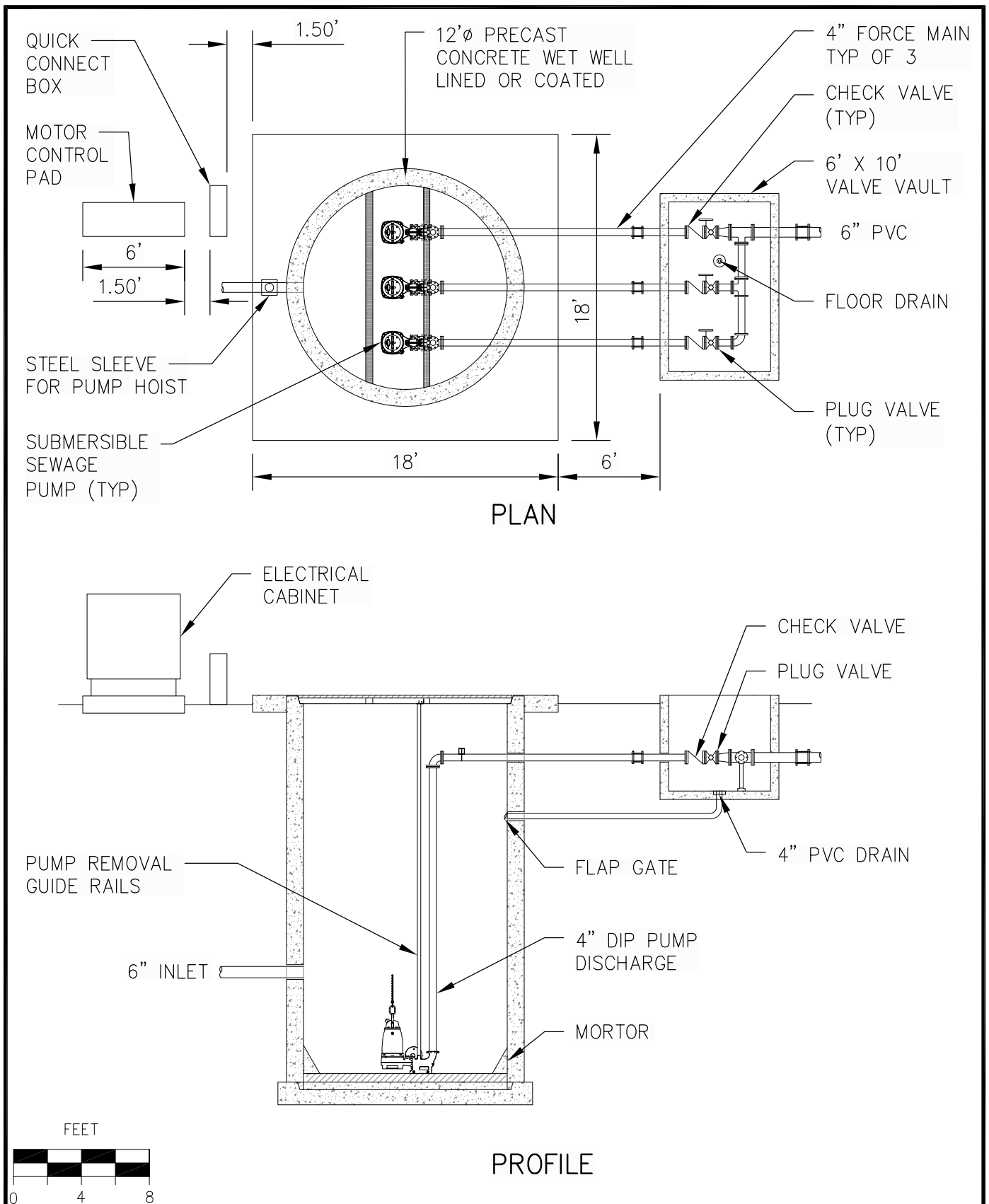
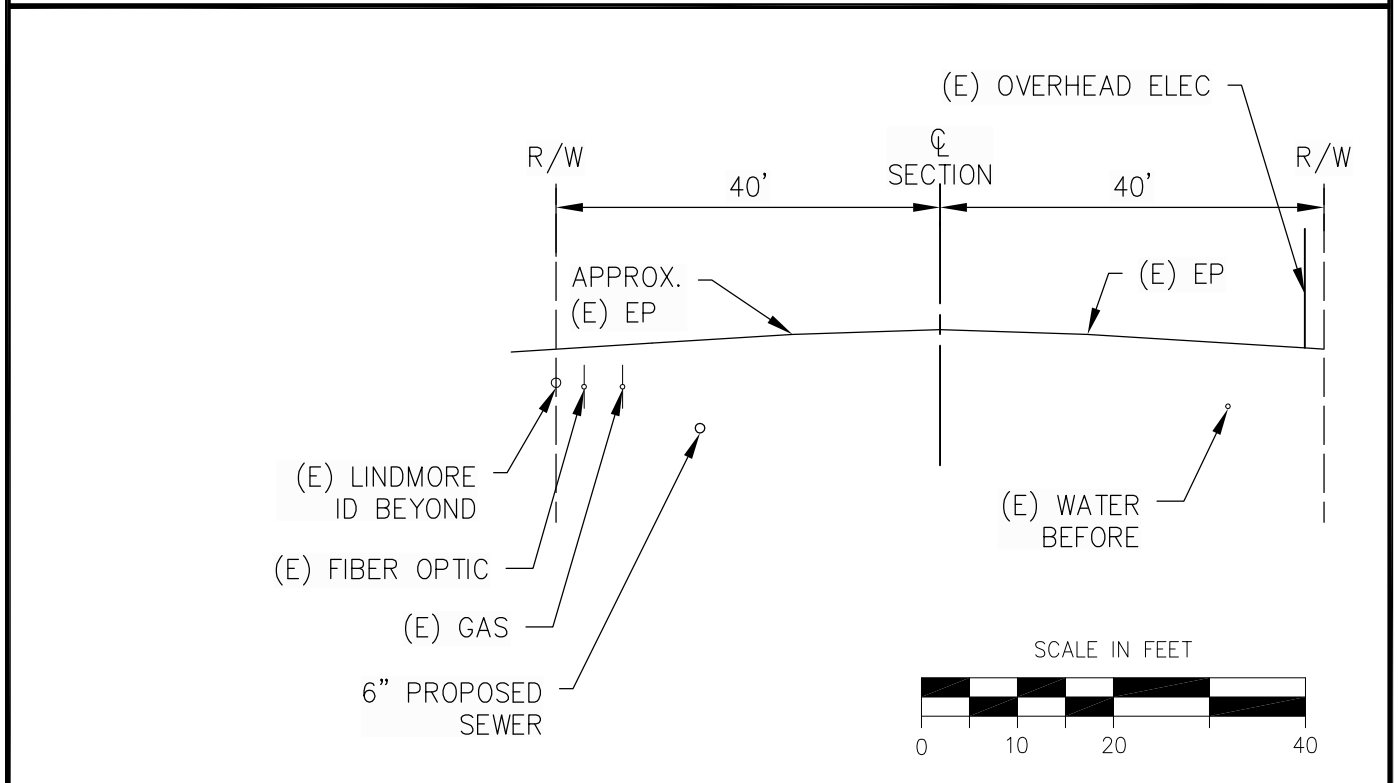
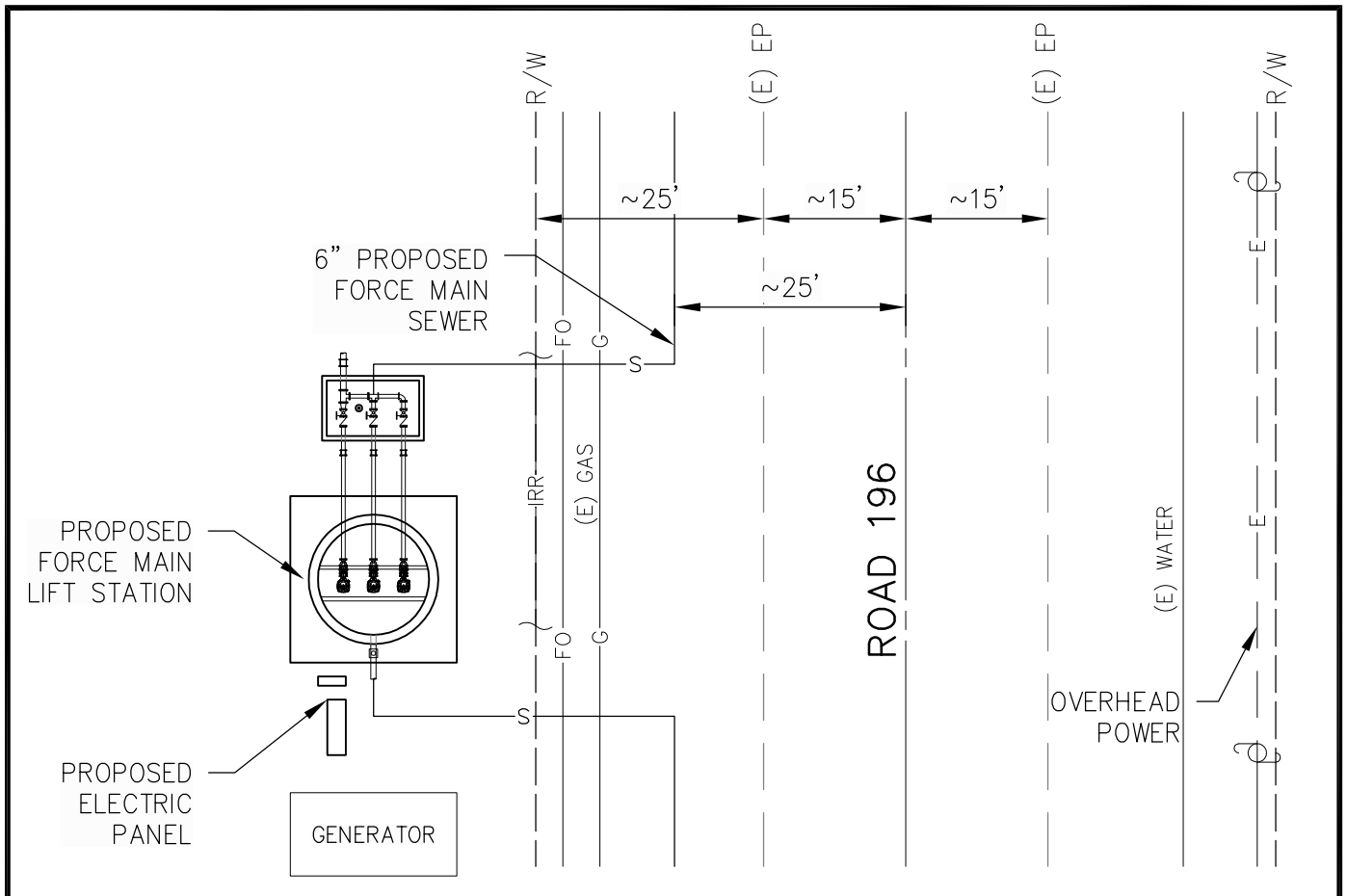


Figure 25
Force Main Lift Station

Plainview Sewer Collection and
Wastewater Treatment Study







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Clovis, CA 93611
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Figure 24
Force Main Sewer Lift Station Road 196
North of Plainview to Lindsay WWTP
Plainview Sewer Collection and
Wastewater Treatment Study

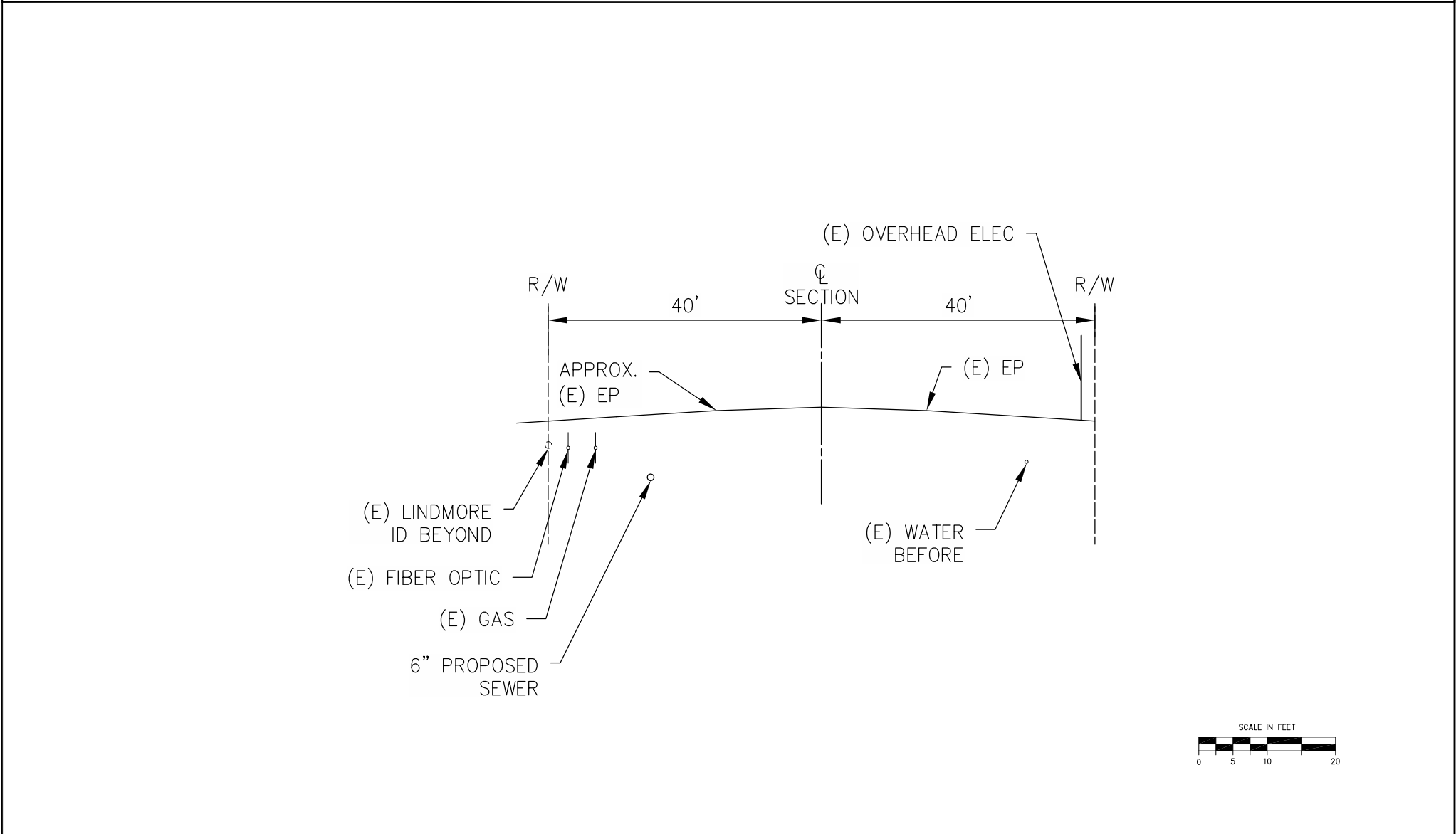
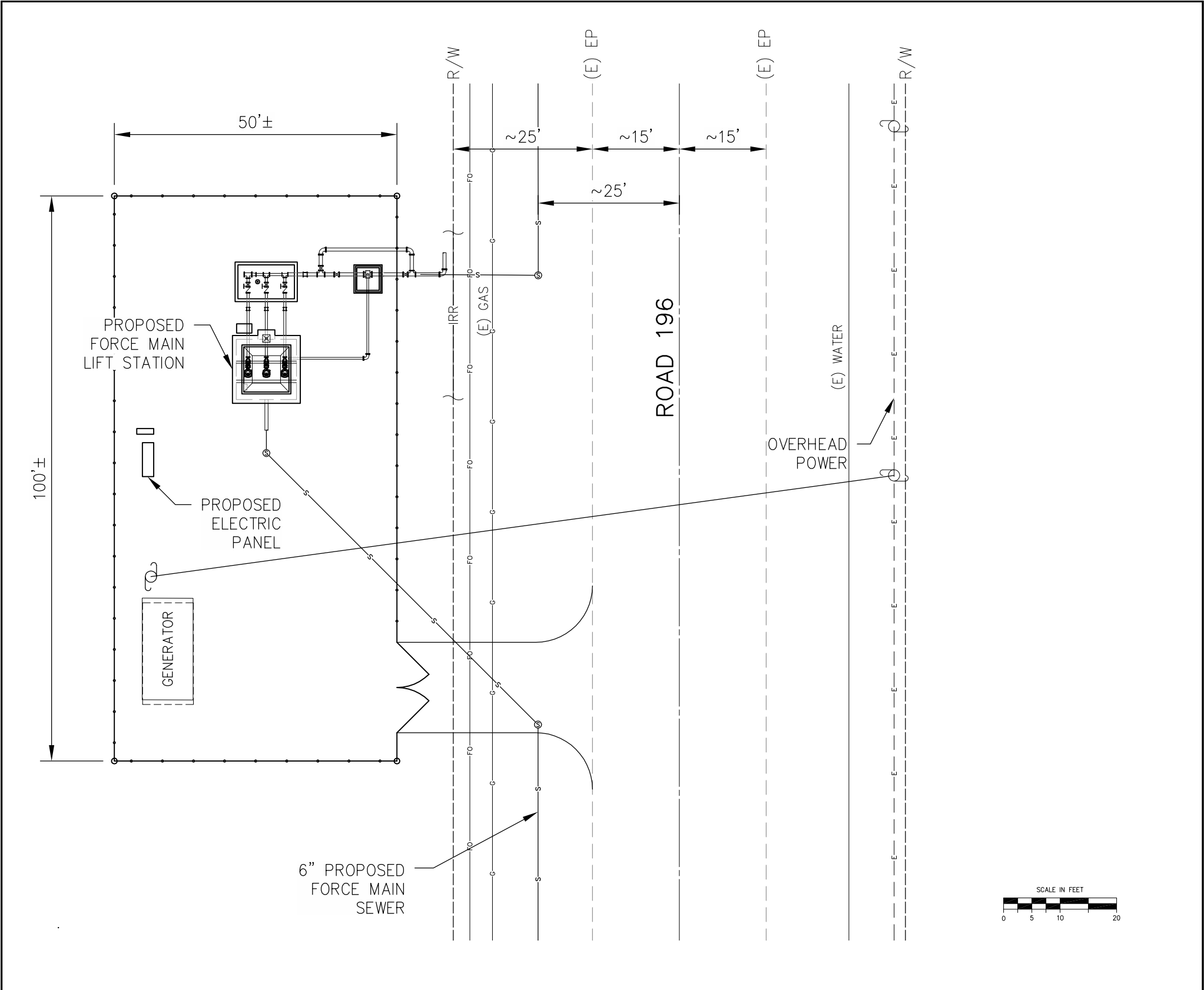
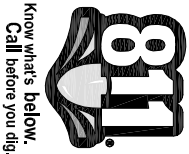


Figure 26
Road 196 and Avenue 196 - Force Main Lift Station
North of Plainview to Lindsay WWTP

Plainview Sewer Collection and Wastewater Treatment Study

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FIGURE 27A

FOR REVIEW ONLY

PLAINVIEW WASTEWATER SYSTEM
TULARE COUNTY
FORCEMAIN LIFT STATION

EST. 1963

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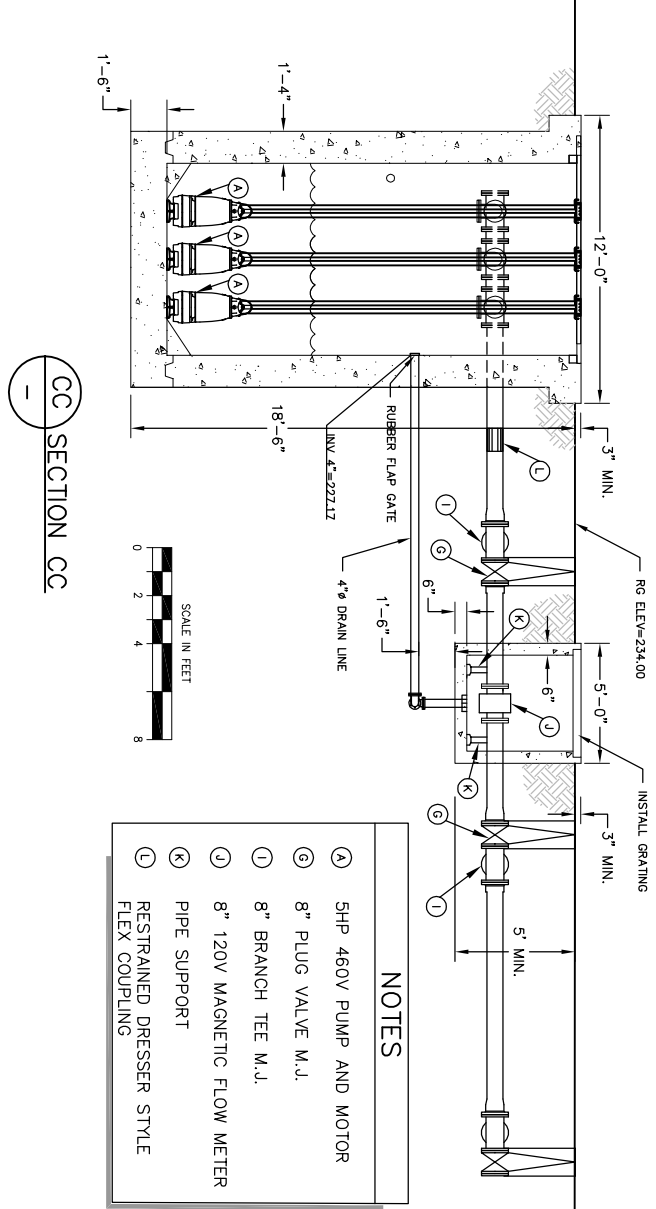
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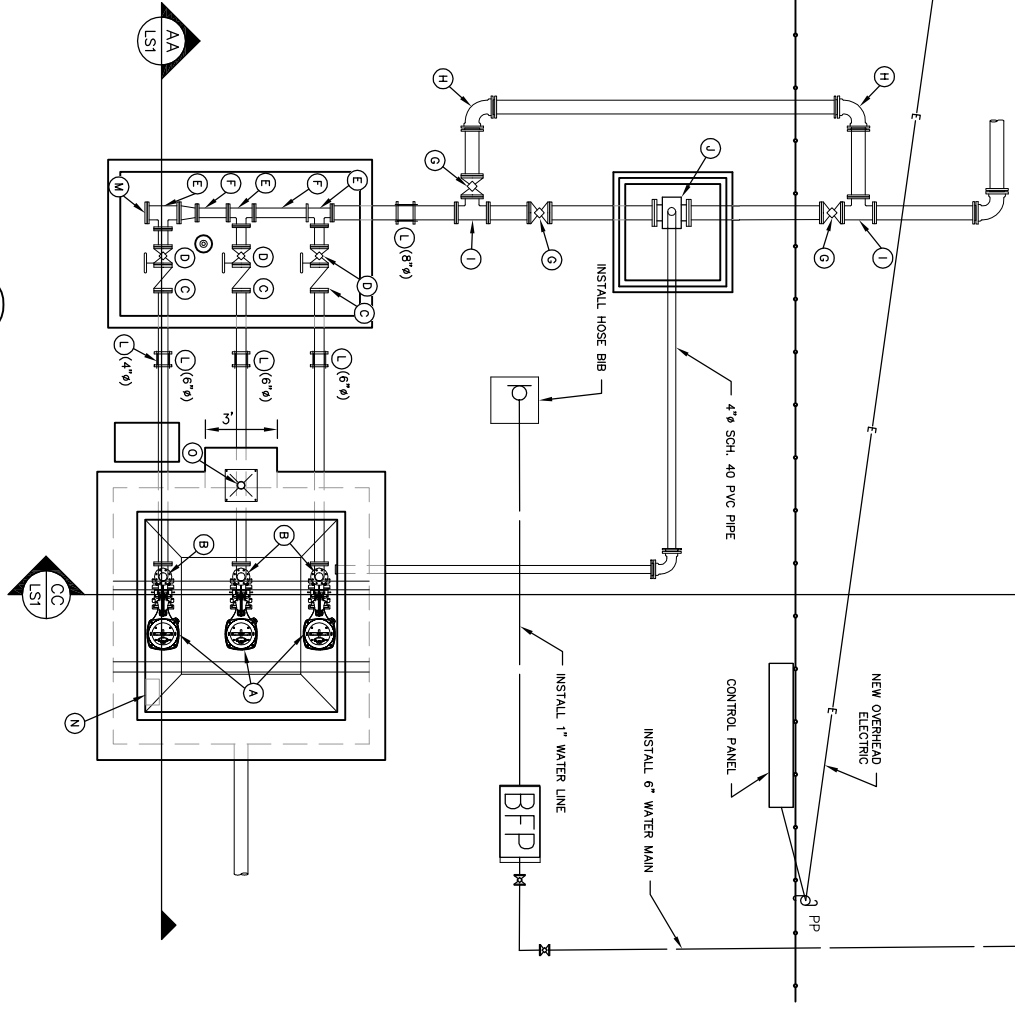
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INCHES. ADJUST SCALE FOR REDUCED OR ENLARGED PLANS.
SHEET

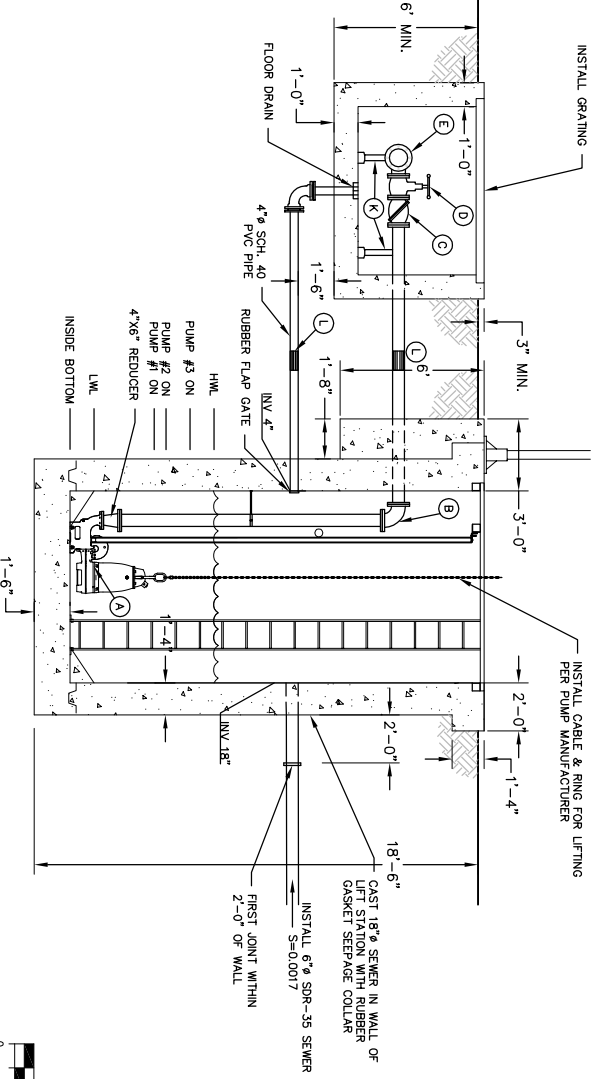
FIG 27A



- NOTES
- A) SHP 460V PUMP AND MOTOR
 - G) 8" PLUG VALVE M.J.
 - I) 8" BRANCH TEE M.J.
 - J) 8" 120V MAGNETIC FLOW METER
 - K) PIPE SUPPORT
 - L) RESTRAINED DRESSER STYLE FLEX COUPLING



A INFLUENT PUMP STATION PLAN VIEW



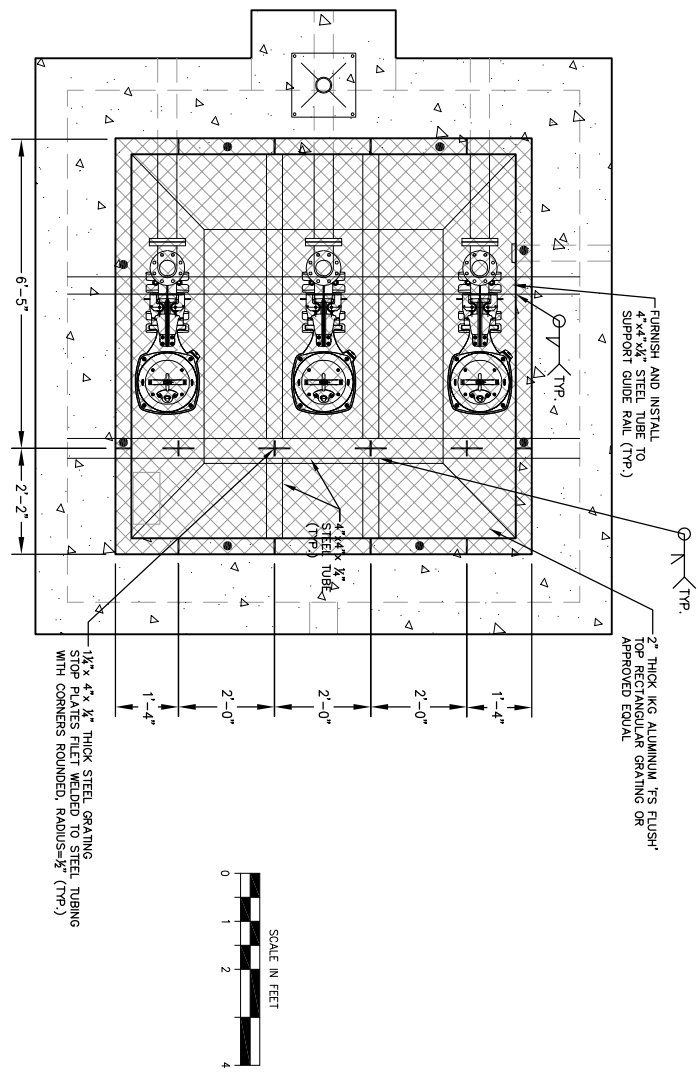
AA SECTION AA

NOTE:
INSTALL NON-SHRINK GROUT FOR WALL RESTRAINTS AFTER VALVE BOX, FLOW METER BOX AND WET WELL PIPING IS COMPLETELY ASSEMBLED

- NOTES
- A) 35HP 460V PUMP
 - B) 6" 90° BEND FLG.
 - C) 6" CHECK VALVE FLG.
 - D) 6" PLUG VALVE FLG.
 - E) 8" X 6" REDUCING TEE FLG.
 - F) 8" SPOOL FLG.
 - G) 8" PLUG VALVE M.J.
 - H) 8" 90° BEND M.J.
 - I) 8" BRANCH TEE M.J.
 - J) 8" 120V MAGNETIC FLOW METER
 - K) PIPE SUPPORT
 - L) RESTRAINED DRESSER STYLE FLEX COUPLING
 - M) 8" BLIND FLANGE
 - N) LEVEL CONTROL 120V 115V HOIST

SCALE IN FEET
0 2 4 8

SCALE IN FEET
0 2 4 8



GRATING OVER WET WELL

SCALE IN FEET
0 1 2 4

APPENDIX D – USFWS Species List

U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office

**Federal Endangered and Threatened Species that Occur in
or may be Affected by Projects in the
CAIRNS CORNER (310B)
U.S.G.S. 7 1/2 Minute Quad**

Report Date: October 14, 2014

Listed Species

Invertebrates

Branchinecta lynchi

vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus

valley elderberry longhorn beetle (T)

Fish

Hypomesus transpacificus

delta smelt (T)

Amphibians

Ambystoma californiense

California tiger salamander, central population (T)

Rana draytonii

California red-legged frog (T)

Reptiles

Gambelia (=Crotaphytus) sila

blunt-nosed leopard lizard (E)

Thamnophis gigas

giant garter snake (T)

Mammals

Dipodomys nitratoides nitratoides

Tipton kangaroo rat (E)

Vulpes macrotis mutica

San Joaquin kit fox (E)

Key:

- (E) Endangered - Listed as being in danger of extinction.
- (T) Threatened - Listed as likely to become endangered within the foreseeable future.
- (P) Proposed - Officially proposed in the Federal Register for listing as endangered or threatened.
- (NMFS) Species under the Jurisdiction of the [National Oceanic & Atmospheric Administration Fisheries Service](#). Consult with them directly about these species.
- Critical Habitat - Area essential to the conservation of a species.
- (PX) Proposed Critical Habitat - The species is already listed. Critical habitat is being proposed for it.
- (C) Candidate - Candidate to become a proposed species.
- (V) Vacated by a court order. Not currently in effect. Being reviewed by the Service.
- (X) Critical Habitat designated for this species

APPENDIX C

CULTURAL RESOURCES RECORDS SEARCH



To: Hector Guerra
Tulare County Resource Management Agency
5961 South Mooney Blvd.
Visalia, CA 93277

Record Search 17-013

Date: January 19, 2017

Re: Matheny Tract Wastewater System

County: Tulare

Map(s): Tulare 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 (3/18/13), 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 THE ONE-HALF MILE RAIDUS

According to the information in our files, there have been three previous cultural resource studies conducted within a small portion of the project area, TU-00102, TU-00103, and TU-01324. There has been one additional study conducted within the one-half mile radius, TU-00541.

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

There are no recorded cultural resources within the project area and it is not known if any exist there. There is one recorded resource within the one-half mile radius, P-54-003608, the Tulare Irrigation Canal.

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 wastewater gravity collection system, a lift station, and a force main to the City of Tulare sewer trunk line. Further, we understand the project area has been zoned for several different uses, indicating different levels of development. Because the majority of this property and most of the surrounding area have not been previously studied for cultural resources, the cultural resources sensitivity level is unknown. Further, it is not known if any cultural resources are present. In areas where the property is vacant, prior to ground disturbance activities, we recommend a qualified, professional archaeologist conduct a field survey to determine if cultural resources are present. Please note that agriculture does not constitute development, as it does not destroy cultural resources, but merely moves them around within the plow zone. If there are any structures on the project area that are more than 45 years old, prior to alteration or demolition, we recommend they be recorded and evaluated for historical significance by a qualified, professional architectural historian. In areas where the property is currently developed and existing structures are less than 45 years old, no further cultural resource investigation is recommended at this time. However, if cultural resources are unearthed during ground disturbance activities, all work must halt in the area of the find and a qualified, professional archaeologist should be called out to assess the findings and make the appropriate mitigation recommendations. A list of professionals is available at 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: January 19, 2017

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX



January 10, 2017

Hector Guerra / Jessica Willis
Tulare County Resource Management Agency

Sent by E-mail: hguerra@co.tulare.ca.us
Cc: jwillis@co.tulare.ca.us

RE: Proposed Matheny Tract Wastewater System Project, Community of Tulare; Tulare USGS Quadrangle, Tulare County, California

Dear Mr. Guerra and Ms. Willis:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties. Please note that the intent of the reference codes below is to avoid or mitigate impacts to tribal cultural resources, as defined, for California Environmental Quality Act (CEQA) projects under AB-52.

As of July 1, 2015, Public Resources Code Sections 21080.3.1 and 21080.3.2 **require public agencies** to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.3.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

In accordance with Public Resources Code Section 21080.3.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the APE, such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:
 - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
 - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
 - If the probability is low, moderate, or high that cultural resources are located in the APE.
 - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and
 - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

- Any report that may contain site forms, site significance, and suggested mitigation measures.

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 in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission. A search of the SFL was completed for the project with negative results.
4. Any ethnographic studies conducted for any area including all or part of the potential APE; and
5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,



Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

**Native American Heritage Commission
Tribal Consultation List
Tulare County
1/10/2017**

***Kitanemuk & Yowlumne Tejon
Indians***

Delia Dominguez, Chairperson 115 Radio Street Bakersfield, CA, 93305 Phone: (626)339-6785 deedominguez@juno.com	Kitanemuk Southern Valley Yokut
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***Santa Rosa Rancheria Tachi
Yokut Tribe***

Rueben Barrios, Chairperson P.O. Box 8 Lemoore, CA, 93245 Phone: (559)924-1278 Fax: (559)924-3583	Southern Valley Yokut
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Table Mountain Rancheria

Leanne Walker-Grant, Chairperson P.O. Box 410 Friant, CA, 93626 Phone: (559)822-2587 Fax: (559)822-2693	Yokut
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Tule River Indian Tribe

Neil Peyron, Chairperson P.O. Box 589 Porterville, CA, 93258 Phone: (559) 781 - 4271 Fax: (559) 781-4610 neil.peyron@tulerivertribe-nsn.gov	Yokut
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This list is current only as of the date of this document. 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 and Section 6097.98 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Matheny Tract Wastewater System Project, Tulare County.

MATHENY TRACT WASTEWATER SYSTEM TRIBAL CONSULTATION REQUESTS AND NOTIFICATIONS

	SB 18 Official Notice		AB 52 / NOP Official Notice		Correspondence / Consultations / Meetings
	Mail Date	Receipt Date	Mail Date	Receipt Date	Date / Summary
Native American Tribe					
Kitanemuk & Yowlumne Tejon Indians Delia Dominguez, Chairperson 115 Radio Street Bakersfield, CA, 93305	n/a	n/a	1/13/17	1/24/17	No response received.
Santa Rosa Rancheria Tachi Yokut Tribe Rueben Barrios Sr., Chairperson P. O. Box 8 Lemoore, CA 93245	n/a	n/a	1/13/17	1/17/17	No response received.
Santa Rosa Rancheria Tachi Yokut Tribe Cultural Department Hector Franco, Director P. O. Box 8 Lemoore, CA 93245	n/a	n/a	1/13/17	1/17/17	
Santa Rosa Rancheria Tachi Yokut Tribe Cultural Department Shana Powers, Cultural Specialist P. O. Box 8 Lemoore, CA 93245	n/a	n/a	1/13/17	1/17/17	
Table Mountain Rancheria Leanne Walker-Grant, Chairperson P.O. Box 410 Friant, CA, 93626	n/a	n/a	1/13/17	1/18/17	1/24/17 Letter from Bob Pennell stating project is out of their area of interest.
Table Mountain Rancheria Bob Pennell, Cultural Resource Director P.O. Box 410 Friant, CA, 93626	n/a	n/a	1/13/17	1/19/17	
Tule River Indian Tribe Neil Peyron, Chairperson P. O. Box 589 Porterville, CA 93258	n/a	n/a	1/13/17	1/17/17	No response received.
Tule River Indian Tribe Tribal Archaeological Department Joseph Garfield, Tribal Archaeologist P. O. Box 589 Porterville, CA 93258	n/a	n/a	1/13/17	1/17/17	
Tule River Indian Tribe Environmental Department Kerri Vera, Director P. O. Box 589 Porterville, CA 93258	n/a	n/a	1/13/17	1/17/17	
Wuksache Indian Tribe/Eshom Valley Band Kenneth Woodrow, Chairperson 1179 Rock Haven Ct. Salinas, CA 93906	n/a	n/a	1/13/17	1/19/17	No response received.
Wuksache Tribe John Sartuche 1028 East "K" Street Visalia, CA 93292	n/a	n/a	1/13/17	2/3/17	



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

BENJAMIN RUIZ, JR., DIRECTOR

January 12, 2017

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez, Chairperson
115 Radio Street
Bakersfield, Ca 93305

RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Matheny Tract Wastewater System Project Feasibility Report

Dear Chairperson Dominguez,

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 Matheny Tract Wastewater System Project Feasibility Report 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

A Sacred Lands File (SLF) search through the Native American Heritage Commission (NAHC) (returned on January 6, 2017), indicated negative results for the project area and the NAHC recommended consultation with your Tribe. Results of the SLF are available to your Tribal Representative(s) if a written request for consultation is submitted to the County within thirty (30) days of receipt of this letter. Otherwise, results of the SLF search will be made available upon the release of the EIR during the public review/comment period.

California Historical Resources Information System Search

A California Historical Resources Information System (CHRIS) search for the project area was requested through the Southern San Joaquin Valley Information Center (SSJVIC) on January 6, 2017. Results of the CHRIS search have not yet been received by the County. As such, the CHRIS search results will be made available upon the release of the Draft EIR for public review.

However, the results may be made available to your Tribal Representatives if a written request for consultation is submitted to the County within thirty (30) days of receipt of this letter.

If your Tribe does not provide a response to this request within thirty (30) days, our environmental record will indicate no response was provided, and, as such, there are no tribal cultural resources of concern and a Cultural Resources Study is not necessary.

Notice of Preparation

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 Project. The Notice of Preparation (NOP) for the EIR is enclosed and will be made available on the County website beginning January 13, 2017, at:

<http://tularecounty.ca.gov/rma/index.cfm/documents-and-forms/planning-documents/environmental-planning/environmental-impact-reports/>

If your Tribe would like the opportunity to consult with the County on this project, please respond in writing within thirty (30) days of receipt of this letter. Written correspondence can be mailed to the address provided above, or to the email address provided below.

If your Tribe opts to decline an opportunity to consult on this project and does not want to receive written notice of the availability of the draft EIR, please provide written correspondence indicating such.

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, Planner IV, by phone at (559) 624-7122, or by email at jwillis@co.tulare.ca.us.

Sincerely,



for
Hector Guerra
Chief Environmental Planner
Environmental Planning Division
(559) 624-7121
hguerra@co.tulare.ca.us

Attachment: Notice of Preparation



RESOURCE MANAGEMENT AGENCY

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VISALIA, CA 93277

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Michael Washam

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Economic Development and Planning

Public Works

Fiscal Services

BENJAMIN RUIZ, JR., DIRECTOR

January 12, 2017

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 Matheny Tract Wastewater System Project Feasibility Report

Dear Chairperson Barrios,

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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, Planner IV, by phone at (559) 624-7122, or by email at jwillis@co.tulare.ca.us.

Sincerely,



for Hector Guerra
Chief Environmental Planner
Environmental Planning Division
(559) 624-7121
hguerra@co.tulare.ca.us

Attachment: Notice of Preparation



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Economic Development and Planning

Public Works

Fiscal Services

BENJAMIN RUIZ, JR., DIRECTOR

January 12, 2017

Santa Rosa Rancheria Tachi Yokut Tribe
Cultural Department
Hector Franco, Director
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 Matheny Tract Wastewater System Project Feasibility Report

Dear Director Franco,

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 Matheny Tract Wastewater System Project Feasibility Report 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,



for

Hector Guerra
Chief Environmental Planner
Environmental Planning Division
(559) 624-7121
hguerra@co.tulare.ca.us

Attachment: Notice of Preparation



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VISALIA, CA 93277

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Michael Washam

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Economic Development and Planning

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BENJAMIN RUIZ, JR., DIRECTOR

January 12, 2017

Santa Rosa Rancheria Tachi Yokut Tribe
Cultural Department
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 Matheny Tract Wastewater System Project Feasibility Report

Dear Cultural Specialist 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 Matheny Tract Wastewater System Project Feasibility Report 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,



for Hector Guerra
Chief Environmental Planner
Environmental Planning Division
(559) 624-7121
hguerra@co.tulare.ca.us

Attachment: 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

BENJAMIN RUIZ, JR., DIRECTOR

January 12, 2017

Table Mountain Rancheria
Leanne Walker-Grant, Chairperson
P.O. Box 410
Friant, CA, 93626

RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Matheny Tract Wastewater System Project Feasibility Report

Dear Chairperson Walker-Grant,

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 Matheny Tract Wastewater System Project Feasibility Report in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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for Hector Guerra
Chief Environmental Planner
Environmental Planning Division
(559) 624-7121
hguerra@co.tulare.ca.us

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RESOURCE MANAGEMENT AGENCY

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Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

BENJAMIN RUIZ, JR., DIRECTOR

January 12, 2017

Table Mountain Rancheria
Bob Pennell, Cultural Resource Director
P.O. Box 410
Friant, CA, 93626

RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Matheny Tract Wastewater System Project Feasibility Report

Dear Director Pennell,

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 Matheny Tract Wastewater System Project Feasibility Report 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,



for

Hector Guerra
Chief Environmental Planner
Environmental Planning Division
(559) 624-7121
hguerra@co.tulare.ca.us

Attachment: Notice of Preparation



RESOURCE MANAGEMENT AGENCY

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Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

BENJAMIN RUIZ, JR., DIRECTOR

January 12, 2017

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 Matheny Tract Wastewater System Project Feasibility Report

Dear Chairperson Peyron,

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Sincerely,



 Hector Guerra
Chief Environmental Planner
Environmental Planning Division
(559) 624-7121
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Attachment: Notice of Preparation



RESOURCE MANAGEMENT AGENCY

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Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

BENJAMIN RUIZ, JR., DIRECTOR

January 12, 2017

Tule River Indian Tribe
Tribal Archaeological Department
Joseph Garfield, Tribal Archaeologist
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 Matheny Tract Wastewater System Project Feasibility Report

Dear Tribal Archaeologist Garfield,

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Sincerely,

A handwritten signature in blue ink that reads "Jessica R. Willis".

Hector Guerra
Chief Environmental Planner
Environmental Planning Division
(559) 624-7121
hguerra@co.tulare.ca.us

Attachment: Notice of Preparation



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

BENJAMIN RUIZ, JR., DIRECTOR

January 12, 2017

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 Matheny Tract Wastewater System Project Feasibility Report

Dear Director Vera,

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Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

BENJAMIN RUIZ, JR., DIRECTOR

January 12, 2017

Wuksache 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 Matheny Tract Wastewater System Project Feasibility Report

Dear Chairperson Woodrow,

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for

Héctor Guerra
Chief Environmental Planner
Environmental Planning Division
(559) 624-7121
hguerra@co.tulare.ca.us

Attachment: Notice of Preparation



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

VISALIA, CA 93277

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Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

BENJAMIN RUIZ, JR., DIRECTOR

January 12, 2017

Wuksache Tribe
John Sartuche
1028 East "K" Street
Visalia, CA 93292

RE: Project Notification Pursuant to Assembly Bill (AB) 52 and Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Matheny Tract Wastewater System Project Feasibility Report

Dear Mr. Sartuche,

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Sincerely,



for Hector Guerra
Chief Environmental Planner
Environmental Planning Division
(559) 624-7121
hguerra@co.tulare.ca.us

Attachment: Notice of Preparation

APPENDIX D

PROJECT FEASIBILITY REPORT

PROJECT FEASIBILITY REPORT

MATHENY TRACT WASTEWATER SYSTEM

TULARE COUNTY, CALIFORNIA

JUNE 2015
REVISED FEBRUARY 2016

FINAL

Prepared for:

County of Tulare
Resource Management Agency
5961 South Mooney Boulevard
Visalia, CA 93291

Prepared by:

Provost & Pritchard Consulting Group
Fresno, California



Date
Signed 2-25-16

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ABBREVIATIONS

ac.....	acres
ACS	American Community Survey
bgs.....	below ground surface
CDP	Census Designated Place
CDPH	California Department of Public Health
CSD	Community Services District
CWSRF.....	Clean Water State Revolving Fund
DAC	Disadvantaged Community
DDW	State Water Resources Control Board, Division of Drinking Water (née CDPH)
DWR	Department of Water Resources
fps.....	feet per second
gpcd.....	gallons per capita per day
gpd.....	gallons per day
gph.....	gallons per hour
MCL	Maximum Contaminant Level
MGD	million gallons per day
mg/l.....	milligrams per liter
MHI	Median Household Income
µg/l.....	micrograms per liter
µmhos/cm	micromhos per centimeter
MWC.....	Mutual Water Company
NRCS	US Department of Agriculture Natural Resources Conservation Service
O&M	Operations and Maintenance
PF	Peaking Factor
PFR	Project Feasibility Report
PMWC	Pratt Mutual Water Company
PUD	Public Utility District
RWQCB.....	Regional Water Quality Control Board
SDAC.....	Severely Disadvantaged Community
SSES	Sewer System Evaluation Survey

sf.....square feet
SSMP Sewer System Management Plan
SWRCB State Water Resources Control Board
RMA..... County of Tulare Resource Management Agency
RWD Report of Waste Discharge
TID..... Tulare Irrigation District
WDRWaste Discharge Requirements
WWTF Wastewater Treatment Facility
WWTPWastewater Treatment Plant

EXECUTIVE SUMMARY

The County of Tulare secured funding assistance and entered into an Agreement (Agreement No. 3012-589) from the California Department of Conservation, Strategic Growth Council for the purpose of evaluating alternatives to address the failing septic systems in the Matheny Tract, near the City of Tulare. A portion of the grant was intended to fund a feasibility study, community outreach, organizational structure formation, and construction documents. A separate funding agreement was secured from the California Water Resources Control Board, Clean Water State Revolving Fund to prepare the environmental documents, sewer system management plan, and construction funding application. The County of Tulare entered into an agreement with Provost & Pritchard Consulting Group to complete the engineering feasibility study, environmental planning, and sewer system management plan portion of the work.

The purpose of this report is to evaluate the alternatives available to replace on-site septic systems for the community of Matheny Tract, which is located in Tulare County adjacent to the City of Tulare. The community is home to over 1,200 residents in nearly 300 houses.

The community is not currently sewered, having on-site septic systems to provide wastewater treatment on each lot. The average lot size in the community is approximately 0.5 acres; however, many lots have been split in half or have more than one residence on a single property. Due to the splitting of lots or construction of multiple dwellings on one lot, the effective lot size of many properties is less than 12,500 square feet, the minimum lot size the County allows for on-site septic systems.

The wastewater flow from Matheny Tract is estimated to be approximately 87,500 gpd on average; however a community system should be designed to handle 130,000 gpd of flow to account for high flows in the summer months as reflected in the water use records.

Alternatives to address the failing on-site wastewater treatment systems included the following:

- On-Site Systems with a Septic Maintenance District: provides replacement of the existing on-site septic systems with systems that denitrify wastewater before discharging it, and would provide for continuation of proper maintenance of the systems by creating a Septic Maintenance District.
- Gravity Collection System, Consolidation with the City of Tulare: provides construction of a wastewater collection system throughout the community with a main connection to the City of Tulare wastewater collection system and ultimate delivery to the City of Tulare Wastewater Treatment Plant (WWTP). This alternative assumes that the City of Tulare will ultimately own and operate the Matheny Tract collection system and main connection to the City of Tulare.
- Gravity Collection System with Community Wastewater Treatment Facility: provides for construction of a wastewater collection system similar to the one shown in Alternative 2; however it would also provide for construction of a small independent Wastewater Treatment Facility (WWTF) within or near the Matheny Tract. This alternative would also

require creation of an agency to manage and operate the community WWTP and collection system.

- No Project: maintains the community in its current condition with no improvement to the existing septic systems. All operations and maintenance responsibility would remain with the individual property owners.

In summary, based on an engineering and cost effectiveness analysis, the selected alternative for the community of Matheny Tract would be to construct a gravity collection system within the community and a lift station and force main to the City of Tulare sewer trunk line. This recommendation is contingent upon the City of Tulare agreeing to consolidation and accepting the sanitary sewer flows.

The Selected Alternative would require the County of Tulare to initiate execution of a Memorandum of Understanding or similar agreement with the City of Tulare, to commit the City to consolidation and providing sanitary sewer service to the community of Matheny Tract.

1 INTRODUCTION

1.1 Report Purpose

The purpose of the report is to document the feasibility of constructing a wastewater collection, treatment and disposal system to replace on-site septic systems for the community of Matheny Tract, an unincorporated community in Tulare County.

This Project Feasibility Report is written with a goal of producing several deliverables including:

- A recommended project for the community of Matheny Tract that takes into consideration capital and operational costs, impacts to the residents, environmental considerations, and other factors.
- Upon approval of the recommended project by the County and other affected agencies and with consideration of the wishes of the Matheny Tract, the following components of work may be completed:
 - Preparation of CEQA and NEPA documents for the recommended project
 - Identification of a government entity to own, operate, and maintain the new wastewater system. Assistance in preparation of the appropriate documentation and applications for the creation or modification of the governing entity. t
 - Technical assistance to the County of Tulare in preparation of a Clean Water State Revolving Fund (CWSRF) funding assistance application for final engineering and construction of the recommended facilities
 - Preparation of a Sewer System Management Plan document for the proposed sanitary sewer collection system

Following selection of a recommended project, public outreach was conducted. A majority of the resident support a community wastewater collection system over keeping onsite septic systems. The results of the public outreach can be found in Appendix M.

1.2 Report Structure

The Project Feasibility Report is prepared and structured in consideration of the County of Tulare's Request for Proposal and CWSRF Technical Report requirements. The structure of the report will satisfy both requirements and includes the following sections.

Section One: Introduction This section presents the purpose, goals and structure of the Project Feasibility Report (PFR), a brief background of the community and the considerations that precipitated the report.

Section Two: Project Area This section presents a description of the project area including vicinity features and boundary, existing and proposed land uses, a discussion of the potential system users and the existing and projected community population.

SECTION ONE

PROJECT FEASIBILITY REPORT

Section Three: Existing Facilities and Current Water Quality This section discusses the existing wastewater facilities, wastewater flow characteristics and the quality of the groundwater in the vicinity of the community.

Section Four: Treatment Objectives for Discharge or Reuse This section presents information concerning the objectives and expected benefits of the project, desired efficiency and operational requirements for potential recommended alternatives, anticipated waste discharge requirements, projected flow rates and a summary of the facilities and actions needed.

Section Five: Project Alternative Analysis This section discusses the design parameters to be used in developing the project alternatives before presenting the alternatives and a comparison of the alternatives.

Section Six: Selected Project This section presents the recommended project alternative including public participation needed to move forward, design criteria, useful life of the project, a preliminary opinion of probable cost, the proposed project schedule, permits required for implementation and key issues to be resolved prior to implementation.

1.3 Background

The Matheny Tract community is located southwest of the City of Tulare (see **Figure 1-1**). The community has a population of 1,212 (United States 2010 Census). There are 296 primarily rural residential lots with average size being 0.5 acres; however, many lots have multiple dwellings or mobiles homes on the property.

The Matheny Tract was originally developed in the 1960s as two tracts, the first on the northeast corner of Addie Avenue and Road 96 (Pratt Street) and the second south of the West Oakland Colony Ditch and east of Road 96. The northern portion of the community was developed with predominantly 1-acre or near-1-acre parcels, while the southern portion was developed with mostly 0.5-acre parcels.

The community has potable water supplied through a community water system which is owned and operated by Pratt Mutual Water Company (PMWC); however, PMWC is in process of building a new water system which will include consolidation with the City of Tulare. Once the project is complete, PMWC will be dissolved.

The community is unsewered and relies on individual on-site septic systems for wastewater disposal. The average lot size indicates adequate space for septic systems with a community water system; however, as noted above there are many lots with more than one dwelling and which may have more than one septic system onsite or have insufficient space to support efficient and effective septic effluent leaching. Additionally, many parcels have been divided, multiple times in some cases, to sizes as small as 6,000 square feet. Nearly 15% of the lots are now less than 12,500 square feet, which is the County of Tulare minimum lot size (see Tulare County Code 7-01-1350) for septic systems with a community water system.

PMWC has received notices of violation for exceedances of nitrate and coliform in its water supply. In 2002, one of PMWC's three wells, Well 2, was condemned due to high nitrate levels.

SECTION ONE

PROJECT FEASIBILITY REPORT

Well 2 is the shallowest well in the community and was likely impacted by septic and agriculture operations in the area.

1.4 Agency Coordination

The Matheny Tract shares a common border on the east side of the community with the City of Tulare (City) and also lies entirely within the Tulare Irrigation District (District). As part of the development of this report and the alternatives discussed in Section 5, discussions were held with both agencies.

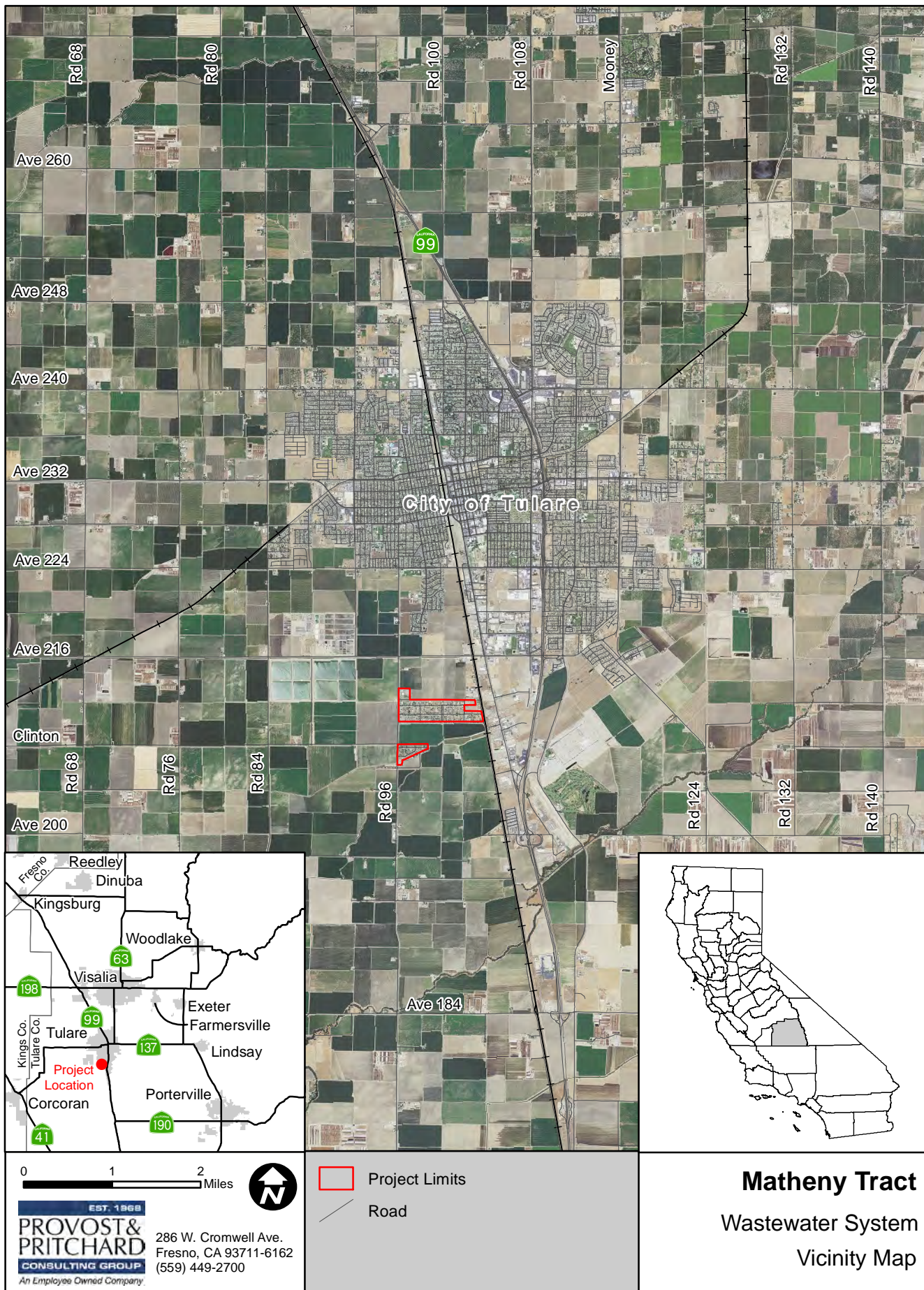
1.4.1 City of Tulare

The City of Tulare, an incorporated city with a population of over 60,000, is included in one of the alternatives presented below. In an effort to develop the alternative sufficiently and accurately, an informational meeting was held with the City to discuss the possible alternative development and to request information on the City's wastewater system and treatment facility. The City indicated they were directing growth away from the southwest area of town in an effort to maintain a buffer around their Wastewater Treatment Facility (WWTF) and would not be supportive of an interconnection with Matheny Tract; however, they also indicated they would provide the information needed to complete the alternative analysis.

In subsequent weeks and months data requests were sent to the City and the majority of the information was provided to the project team. In addition to the data received, the project team used information from the City's municipal code and experience with similar projects in other cities to estimate the capacity fees and the latest published data regarding the remaining capacity of the WWTF was obtained from the City's website.

1.4.2 Tulare Irrigation District

The Tulare Irrigation District (District), an irrigation district encompassing 1,100 acres in the western portion of the County of Tulare, would be impacted by two alternatives presented below. The District was contacted regarding design standards and any additional requirements they may have. The District provided information concerning required crossing depths and common use agreements when crossing the canals; they would also want to review and approve any construction plans prior to beginning construction.



SECTION TWO

2 PROJECT AREA

The proposed project area is located in Tulare County, within Tulare Irrigation District's boundaries, near the City of Tulare. The site is approximately 60 miles east of the Coast Range Mountains and 25 miles west of the Sierra Nevada Mountain Range. Topographically, the site is at an average elevation of approximately 263 feet above mean sea level and has a general gradual slope from east to west.

All of the Matheny Tract lands are situated in Township 20 South, Range 24 E, MDB&M, in the USGS 7-1/2' (1:24,000) "Tulare" Quadrangle. The northwest portion of the Matheny Tract is within the north half of the southeast quarter of Section 22. The northeast portion of the Matheny Tract is within the north half of the southwest corner of Section 23 and is bounded on the east by the Union Pacific Railroad right-of-way. The southern portion of the Matheny Tract is within the north half of the northeast quarter of Section 27. The majority of that portion is within the northwest quarter of the northeast quarter of Section 27 and a portion is within the northeast quarter of the northeast quarter of Section 27.

The community overlies Federal Emergency Management Agency – Flood Insurance Rate Map numbers 06107C1262E and 06107C1275E and is located in an area with minimal risk of flooding (see Appendix A).

2.1 Vicinity and Project Boundary

2.1.1 Project Boundary

As previously mention, the community is separated into two segments, the northern and southern portions (see Figure 2-1).

The northern portion is generally bounded by Road 96 (Pratt Street) and I Street in the east-west directions and Wade and Addie Avenues in the north-south direction. Adjacent to I Street, the Union Pacific Railroad tracks are elevated approximately 10-feet above natural ground surface; these railroad tracks serve as a physical boundary between the City of Tulare and the Matheny Tract.

The southern portion is generally bounded by Road 96 on the west and Prine and Matheny Avenues in the north-south direction. The Matheny Tract is bordered by agriculture lands to the west, north and south; agriculture land also lies between the northern and southern portions of the community.






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 (559) 449-2700

-  Canal
-  Project Limits
-  City Limits 2012

Matheny Tract

Wastewater System

Project Boundary

SECTION TWO

2.1.2 Existing Features

2.1.2.1 *Hydrological Features*

The Matheny Tract is located within Tulare Irrigation District (TID or District) and has numerous canals around and within its boundaries (as shown on Figure 2-1). North of the project site run TID's Main Canal, bifurcating the northern portion is the Oakland Colony Canal and along the north edge of runs the southern portion the West Oakland Colony Canal. The Main Canal is one of TID's primary canals and is approximately 7 feet deep and 35 feet wide at its top. The Oakland Colony Canal and West Oakland Colony Ditch are both smaller canals; the former is approximately 24 feet wide at its top and 5 feet deep while the latter is approximately 11 feet wide and 4 feet deep. Along the eastern boundary of the northern portion there is an out-of-use small ditch, called the Old 99 Ditch. It seldom has water in it and is used primarily for storm drain purposes. There are no other hydrological features within or around the project site.

2.1.2.2 *Geological Features*

There is one soil category within the Matheny Tract area identified by the United States Department of Agriculture Natural Resources Conservation Service (NRCS) as Colpien Loam, 0 to 2 percent slopes (see Appendix B).

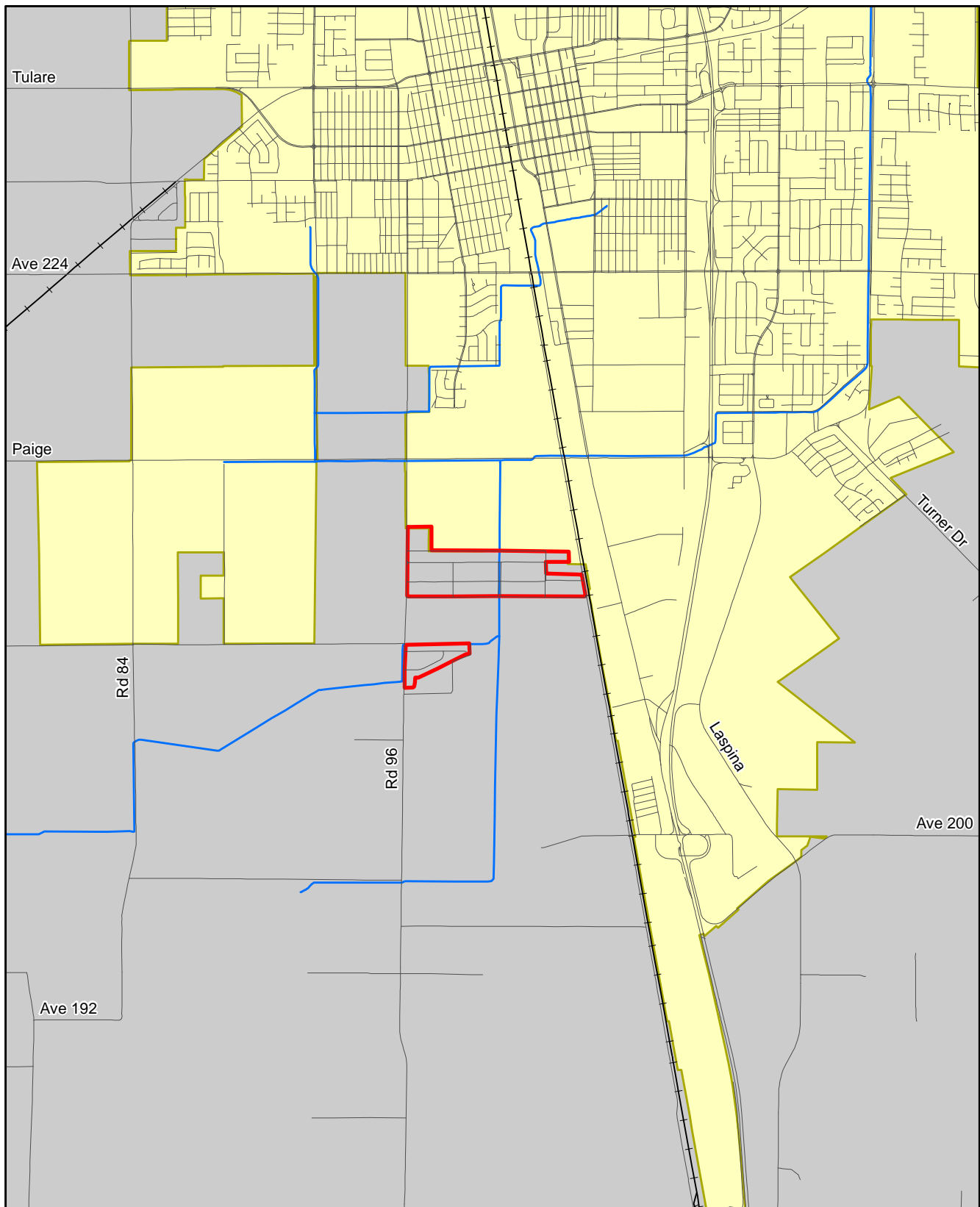
The Colpien Loam consists of very deep, moderately-well-drained soils on terraces that formed in alluvium derived mainly from granitic rocks. These soils are artificially drained. Slopes are 0 to 2 percent. The average annual precipitation is about 10 inches and the average annual temperature is about 63 degrees F. According to the NRCS, a typical soil profile consists of loam between 0 and 60 inches and sandy loam between 60 and 65 inches. The frost-free season is 250 to 300 days. Although Colpien Loam is considered prime farmland if irrigated and protected or free from flooding during growing season, the Matheny Tract is within the City of Tulare's Sphere of Influence. As such, there is no proposed significant impact to the existing soils in the Matheny Tract area.

2.1.2.3 *Topographical Features*

The project site is general flat with approximately 10 feet of downward elevation gradient from east to west. There is a bermed canal that runs through the middle of the northern portion in a north-south direction but otherwise the site is free from significant topographical features.

2.1.2.4 *Agency Boundaries*

The Matheny Tract is located entirely within the County of Tulare, and also entirely within Tulare Irrigation District boundaries. The City of Tulare city limits are located approximately 700 feet of the northern edge of the community and along I Street. The City's sphere of influence, shown in the Public Review Draft of the 2035 General Plan dated November 1, 2013 (see Appendix C), also shows the community within the City's Sphere of Influence. Figure 2-2 shows the project site and relevant agency boundaries.



0 0.5 1 Miles



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- Project Limits
- Canal
- City Limits 2012

Matheny Tract
 Wastewater System
 Local Agency Boundary

SECTION TWO

2.1.3 Water Resources

2.1.3.1 *Water Supply*

The Matheny Tract's water supply is provided by Pratt Mutual Water Company. PWMC is classified as a community water system and serves a population of 1,212 people. PMWC provides water through two wells on a closed-loop system; the system provides both domestic and fire suppression supplies. The water system is served solely by groundwater.

2.1.3.2 *Ground Water*

The western half of Tulare County is comprised of flat valley lands of the southern San Joaquin Valley, while rolling foothills associated with the Sierra Nevada Mountains characterize its eastern half. Topography consists of flat valley land, gently rolling foothills, and canyons of the Sierra Nevada Mountains. Water bearing units within Tulare County include younger and older alluvium, flood-basin deposits, lacustrine, marsh and continental deposits. The older alluvium is moderately to highly permeable and is the major aquifer for Tulare County. Regional groundwater flow is generally southwestward; however, pumping can affect local groundwater flow direction.¹

Tulare County is located within the San Joaquin Valley Groundwater Basin. The California Department of Water Resources (DWR) Bulletin 118 identifies several groundwater subbasins in Tulare County, including the Kings Subbasin, Kaweah Subbasin and Tule Subbasin. The project is located within the Kaweah Subbasin.

The Kaweah Subbasin underlies central Tulare County west of the Sierra foothills. The major water-bearing units are made up of unconsolidated Pliocene, Pleistocene, and Holocene-age sediments. Continental lacustrine and marsh deposits are found in the western portion of the subbasin, closer to the Tulare Lake bed. Clay beds associated with lacustrine deposits form aquitards that influence the vertical and possibly horizontal movement of local groundwater. The most well-known clay bed is the Corcoran clay, which underlies the western half of the Kaweah Subbasin from 200 to 500 feet below ground surface (bgs), confining portions of the aquifer. The county's population centers of Visalia and Tulare are located within the Kaweah Subbasin. Approximately 44% of the sampled wells were located in the Kaweah Subbasin.

In the Matheny Tract the wells are completed to total depths of 325-feet (Well 1) and 400-feet (Well 3) below ground surface (bgs), possibly beneath the Corcoran Clay layer, though the east edge of the clay is near the Highway 99 alignment and it does not have much if any effect on the hydrogeology at this location. Groundwater recharge in the county occurs through river and stream seepage, percolation of irrigation water, canal seepage, and intentional recharge. Land subsidence of up to 16 feet has occurred due to deep compaction of fine-grained units. This subsidence is thought to be due to groundwater withdrawal. The DWR-published ground water contours in the project area are included in Appendix D.

¹ (State Water Resources Control Board, 2013)

SECTION TWO

2.1.3.3 Surface Water

The closest surface water ways are the TID canals discussed in Section 2.1.2.1. The Main Canal is approximately 0.5 miles north of the project area and the other referenced canals run through or directly adjacent to the project area.

2.1.3.4 Hazardous Constituents

A review of Identified Hazardous Waste Sites on the EnviroStor Database determined that there are no identified hazardous sites within the Matheny Tract or nearby vicinity.

A review of the Geotracker Database (Appendix E), which is maintained by the California Environmental Protection Agency – State Water Resource Control Board (SWRCB), identifies C&E Feed & Auto Parts (T0610700135), at the northeast corner of Pratt Street and Addie Avenue, as a site with a cleanup status of “Completed- Case Closed” and Curti & Sons, Inc. (T0610700411) at 3235 Avenue 199, as a site with a cleanup status of “Open – Remediation.” The SWRCB defines “Open – Remediation” as an on-going corrective action at a site where the actual construction or implementation activities to accomplish cleanup at the site are in process.

Further discussion of groundwater quality can be found in Section 3.3.

2.2 Land Use

The Matheny Tract is a community primarily comprised of rural residential properties with single-family dwelling units. The area has paved roads which are owned and maintained by the County of Tulare and provide sufficient circulation throughout the community. The County of Tulare is the agency that determines property land use and zoning; however, the area is also considered in the City of Tulare’s General Plan.

2.2.1 County of Tulare

The County of Tulare 2030 General Plan, adopted August 2012, identifies the Matheny Tract within the urban development boundary of the City of Tulare (see Appendix F). As discussed previously, the area is characterized primarily by residential lots greater than 12,500 square feet with no lots larger than 5 acres. By County of Tulare definition, the area is a combination of rural residential (1 to 5 acre lots) and low density residential (12,500 square feet to 1 acre lots) land uses².

2.2.2 City of Tulare

The City of Tulare updated its General Plan Land Use Map in 2009; the exhibit identifies the Matheny Tract within the City’s Sphere of Influence but outside of the City’s Urban Development Boundary and with land use designation Suburban Residential. The community is surrounded by land designated as Agriculture on all sides (see Appendix C).

² (Tulare County, Resource Management Agency, August 2012)

SECTION TWO

The City is currently updating its General Plan and has released the Public Review Draft (November 2013). The 2035 General Plan, Public Review Draft, shows the Matheny Tract outside of the City limits and the City's Urban Development Boundary; the area does not have a land use designation. The 2035 Land Use Map designates the area directly north of the community as Light Industrial; however, the area surrounding the community on all other sides does not have a land use designation (see Appendix C).

2.3 System Users

2.3.1 Existing System Users

The Matheny Tract is comprised primarily of rural residential parcels with a small number of commercial establishments and churches. There are approximately 1,212 residents in the community with nearly one-third of the community make-up being minors.

There are three commercial businesses within the community: a gas station and convenience store at the northeast corner of Addie Avenue and Road 96 (each would be planned with separate services) and a diesel mechanic shop along Road 96 approximately 500 feet north of Wade Avenue.

There are three churches within the community: New Zion Baptist Church on Beacon Avenue between Canal and Casa Streets, Progressive Missionary Baptist at the southeast corner of Beacon Avenue and Casa Street, and Iglesia Apostólica de la Fe en Cristo Jesus at the southeast corner of Beacon Avenue and Road 96.

2.3.2 Future Users

It is not anticipated that new users will be added to the system in the future. PMWC, in 2003, requested a moratorium to prevent further development due to water supply concerns.

2.4 Project Area Population

2.4.1 Current and Projected Population

According to the 2010 Census data the population of the Matheny Tract is 1,212 people; however the American Community Survey (ACS) updates the housing estimates annually. The following table shows the data from the last three ACS 5-year estimates (prior population data is not available).

SECTION TWO

Table 2-1: Community Population	
Year	Population
2010 [*]	1,212
2011 ^{**}	1,116
2012 ^{***}	1,119
2013 ^{****}	1,130
<i>Notes:</i> [*] 2010 Census ^{**} 2007-2011 ACS 5-year Estimates ^{***} 2008-2012 ACS 5-Year Estimates ^{****} 2009-2013 ACS 5-Year Estimates	

Based on the population estimates shown above and the building moratorium, it is not anticipated that population will grow in the future. For the purposes of this project, it is assumed the population will remain at or near 1,200 individuals. The average household size was shown in the 2010 US Census as 3.79 persons.

2.4.2 Social Economic Characteristics

The 2008-2012 ACS 5-year estimate shows the Median Household Income (MHI) for the Census Designated Place (CDP) of the Matheny Tract to be \$28,750³ (\pm \$2,662 Margin of Error), which is 46.8% of the \$61,400 statewide MHI for the same period. Any community with an MHI less than 80% or 60% of the statewide MHI is identified respectively as a Disadvantaged or Severely Disadvantaged Community (DAC or SDAC); based on the information presented, the Matheny Tract would classify as an SDAC⁴.

The demographics of the population within the community are predominantly Hispanic (73.4%) and largely under age 20 (41.1%).

³ (United States, American Community Survey, 2008-2012)

⁴ (State of California, Public Resource Code)

SECTION THREE

3 EXISTING FACILITIES AND CURRENT WATER QUALITY

3.1 Existing Facilities

3.1.1 Existing System Description

The Matheny Tract residents use septic systems located on each lot to dispose of their effluent discharge. The septic systems mainly consist of a concrete tank providing rudimentary wastewater treatment, which then discharges effluent to a leach field or leach pit. The septic tanks are typically located behind the primary or first residence constructed on the property; leach field locations vary and are not necessarily part of the public record.

3.2 Existing Flow Characteristics

3.2.1 Lot Sizes

As discussed in Section 2, the lot sizes vary broadly from approximately 6,000 square feet (sf) to 4.7 acres (ac). The smaller lots typically have one dwelling, while the larger lots can have as many as three dwellings (often a mixture of fixed houses and mobile homes). Based on visual inspection there are approximately 320 dwellings within the community on 290 residential lots; approximately one-third of the dwellings are mobile homes. The following table identifies how many fixed and mobile homes, churches, and commercial establishments are in the area.

Table 3-1: Dwellings Summary	
Type of Use	Estimated Number of Uses
Dwellings	320
Church	3
Commercial (Small Store)	3

3.2.2 Waste Generation Estimates

The flowrates for the wastewater loading on the new system were estimated by using the typical wastewater flow rates for nearby communities and applying those numbers to the Matheny Tract community (see WDRs for Tipton, Tulare and Woodville in Appendix G). The following table shows the unit flowrates used.

SECTION THREE

Table 3-2: Waste Generation Estimate	
Type of Use	Unit Flowrate
Residential	72 gpcd
Church	8 gal/attendee ⁵
Small Store	10 gal/employee ⁵

As discussed above, there are approximately 1,212 people in the Matheny Tract. By using 50 attendees at church services per church site, once per week, and 4 employees (average) at the local commercial establishments, the community wastewater estimate is 87,500 gallons per day (gpd) or 72 gallons per capita per day (gpcd). This value is well below the threshold of 120 gpcd that would require a Sewer System Evaluation Survey (SSES); an SSES will not be prepared for this project.

Wastewater generation can also be estimated by taking 90 percent of the winter daily water use. Based on water use records, 90 percent of the average winter month (November through February) water use is 107,320 gpd or 89 gpcd.

Based on these methods, the wastewater flow from Matheny is conservatively estimated to be approximately 110,000 gpd; however the plant should be designed to accommodate 130,000 gpd to account for high flows in the summer months.

3.2.3 Wastewater Characteristics

The flow rates from the City of Tulare, Woodville Public Utilities District (PUD) and Tipton Community Service District (CSD) were reviewed (see Appendix G). According to each community's Waste Discharge Requirements, the City of Tulare has a permitted capacity of 6 million gallons per day (MGD), Woodville PUD has a permitted capacity of 0.33 MGD and Tipton CSD has a permitted capacity of 0.4 MGD. The communities all operate below their permitted capacity, with an average waste generation rate of approximately 72 gpcd.

The raw wastewater characteristics from the Matheny Tract to be used for the purposes of this report and design calculations of the selected alternative are shown in the following table. The reference source identified three levels of influent, low, medium and high; the medium characteristics have been selected.

⁵ (Metcalf & Eddy, Inc, 2003), pg 157

SECTION THREE

Table 3-3: Influent Characteristics ⁶	
Constituent	Design Values
BOD, 5 day (mg/l)	350
TSS (mg/l)	400
Total N (mg/l)	70
Ec (µmhos/cm)	Source + 500

3.2.4 Seasonal Variations

The community has seasonal variations due to climatic factors and user impacts. The annual average water use per person in the Matheny Tract is 175 gpcd. During the summer months the average water use is 252 gpcd, while during the winter months the average is 98 gpcd.

During the summer months (May through August), the climate is hot and dry, necessitating more outdoor water usage for irrigation and recreation. Wastewater generation is exacerbated by summer break from school for children, increasing the daily average loading. The community is not home to a school; therefore, during non-summer months, the wastewater generation by school-aged children is not realized in the community for a large portion of each weekday. For design purposes, the dry-weather conditions are used to account for the highest wastewater generation.

3.3 Water Quality

The community is solely reliant on groundwater supply. The drinking water standards specify allowable levels for constituents of concern in the area (Arsenic and Nitrate). The Maximum Contaminant Levels (MCLs) for Arsenic and Nitrate are 10 µg/L and 45 mg/L, respectively. In addition, the water quality characteristics must meet the Federal and State drinking water standards for other regulated constituents.

3.3.1 Past Water System Violations

PMWC has received several Notices of Violation from the California Department of Public Health (CDPH). In 1999 and 2000, Well 2 was cited several times for exceeding the MCL for nitrate, resulting in the well's condemnation in 2002 by DHS. With the development of the lower 10 µg/L MCL for Arsenic in 2006, the remaining two wells of the water system are now in exceedence.

The nitrate levels in Well 2 were sampled in 1999 and 2000 with reported levels 60 mg/L in both instances. The presence of Nitrate at levels significantly in excess of the MCL in Well 2 was attributed to the shallowness of the well; the shallow groundwater has been affected by both

⁶ (Metcalf & Eddy, Inc, 2003), Table 3-15

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septic systems and agricultural uses in the surrounding area. This well is no longer in use by Pratt MWC for this reason.

From 2002 to 2010, Pratt MWC conducted 8 and 12 sampling events on Wells 1 and 3, respectively. The average Arsenic concentration was 15.0 µg/L at Well 1 and 11.9 µg/L at Well 3; substantially above the 10 µg/L MCL.⁷

⁷ (State Water Resources Control Board, 2012)

4 TREATMENT OBJECTIVES FOR DISCHARGE OR REUSE

4.1 Purpose, Objectives and Expected Benefits of the Project

4.1.1 Purpose of the Project

The Matheny Tract is presently unsewered with wastewater disposal provided via individual septic systems that date to the 1960s. The septic systems are failing due to age, lack of maintenance and insufficient percolation capacity of the underlying soils. As discussed previously, it is generally understood the failing septic systems are contributing to the occurrence of locally high nitrate in the shallow aquifer.

Continued use of the existing septic systems without repair or modification is not feasible as the systems can be expected to continue to fail, resulting in an increasing public health problem, as other communities in the area, such as Plainview, have already experienced.

This Report analyzes the wastewater disposal needs of the community, identifies and analyzes four potential alternative solutions and recommends a preferred alternative. Once the preferred alternative has been selected and key issues dealt with in a manner to allow the project to move forward, the environmental documents, construction documents and other related work will be completed. This Report will then serve as the basis for a construction finance application.

4.1.2 Objective /Expected Benefits

The objective of the project is to provide the community with a viable, sustainable solution for their wastewater disposal needs.

The expected benefits of the project include the following:

- Eliminating the continuation of groundwater contamination due to septic system usage
- Provide assistance to a Disadvantaged Community
- End reliance on aging and failing individual septic systems
- Eliminate individual exposure to major repair costs
- Establish affordable and stable wastewater disposal charges

4.2 Performance Characteristics for Efficient Treatment

Typically, wastewater treatment and disposal systems for small communities must provide efficient treatment of wastewater generated by the community by exhibiting the following performance characteristics:

- Efficient reduction of levels of BOD and TSS in the influent wastewater.
- Provide cost effective treatment of wastewater that is affordable (both capital and operations costs) to the community.

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- Provide treatment processes that are easily operated and maintained by the community and meet the requirements of the RWQCB's Waste Discharge Requirements for the treatment facility.

4.3 Health-Related Water Characteristics

The wastewater system design must consider several items as they relate to water characteristics and community health including, on-site, operation and discharge requirements.

The wastewater collection system must comply with DDW minimum separation requirements, minimum slope and velocity requirements (discussed in further detail in Section 5), and other relevant system requirements to be further defined with the selection of a recommended alternative.

Operation of a wastewater collection and/or treatment system must comply with RWQCB Waste Discharge Requirements, agency requirements of the jurisdictional agency and County of Tulare requirements. These requirements will also be further defined with the selection of a recommended alternative.

Waste discharge requirements are discussed in the following section.

4.4 Anticipated Waste Discharge Requirements

The community does not have a community wastewater system and therefore does not have Waste Discharge Requirement (WDRs) at this time; however, at such a time that a recommended alternative is defined, an outline of a Report of Waste Discharge (RWD) would be prepared for use when design of facilities is completed. An Antidegradation Analysis would also be required for the evaluation of a new or modified wastewater system, to define the potential degradation of groundwater quality in the area and identify potential measures to mitigate the degradation resulting from installation of the system.

If the recommended alternative is to connect to an existing wastewater system, it is possible that a modified RWD would be required for that facility, together with an explanation of necessary expansion or upgrade to accommodate the added flow from the Matheny Tract.

A community wastewater system would be required to conform to the Basin Plan as regulated by the Central Valley Regional Water Quality Control Board. It is anticipated that the volume or flow and the geographical location of the system would likely result in the disposal of effluent through evaporation/percolation ponds. The anticipated WDRs would include a limit of BOD at 40mg/l, TSS at 40mg/l, and EC the lesser of 1,000 µmhos/cm or 500 µmhos/cm above the source drinking water.

4.5 Operation Requirements

Operation requirements will vary depending on the treatment and disposal process selected. Wastewater treatment and disposal alternatives are presented later in this report and will include a paragraph describing the operation requirements for each alternative presented.

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4.6 Projected Future Flow Rates

As discussed previously, growth is not anticipated in the community, nor is it encouraged. For purposes of this Report, it is assumed the future flow rates will not exceed the present design flow rates.

4.7 Additional Facilities or Actions Needed

Until such a time as the outline of the WDRs or the RWD has been prepared, it will not be known whether additional facilities or actions will be needed; it is anticipated that none will be required. The purpose of Section 6 is to identify and discuss all such potential future facilities and address actions needed.

5 PROJECT ALTERNATIVES ANALYSIS

This section discusses and analyzes four project alternatives:

- Alternative 1: On-Site Systems with a Septic Maintenance District
 - This alternative would provide replacement of the existing on-site septic systems with systems that denitrify wastewater before discharging it, and would provide for continuation of proper maintenance of the systems by creating a Septic Maintenance District.
- Alternative 2: Gravity Collection System, Consolidation with the City of Tulare
 - This alternative would provide construction of a wastewater collection system throughout the community with a main connection to the City of Tulare wastewater collection system and ultimate delivery to the City of Tulare Wastewater Treatment Plant (WWTP). This alternative assumes that the City of Tulare will ultimately own and operate the Matheny Tract collection system and main connection to the City of Tulare.
- Alternative 3: Gravity Collection System with Community Wastewater Treatment Facility
 - This alternative would provide for construction of a wastewater collection system similar to the one shown in Alternative 2; however it would also provide for construction of a small independent Wastewater Treatment Facility (WWTF) within or near the Matheny Tract. This alternative would also require creation of an agency to manage and operate the community WWTP and collection system.
- Alternative 4: No Project
 - This alternative would maintain the community in its current condition with no improvement to the existing septic systems. All operations and maintenance responsibility would remain with the individual property owners.

5.1 Design Parameters

5.1.1 Relevant Design Criteria

The design criteria for the collection system facilities are summarized in **Table 5-1**.

SECTION FIVE**PROJECT FEASIBILITY REPORT****Table 5-1: Collection System Design Criteria**

Parameter	Units	Peaking Factor	Design Value
Average Daily Flow	gpd	-	130,000
Peak Daily Flow	gpd	1.6	208,000
Peak Hourly Flow	gpd gph*	3.0 ⁸	390,000 16,250
Minimum Separation (from existing Water main)	feet		10
Minimum Cover	feet		4
Maximum Manhole Spacing	feet		350
Lift Station Depth, maximum	feet		25
Gravity Sewer Velocity	feet per second (fps)		Minimum: 2 (at average daily flow) Maximum: 10
Force Main Velocity,	fps		Minimum: 2 Maximum: 10
Gravity Sewer Slope, minimum	ft/ft		8-inch main: 0.0033 10-inch main: 0.0025 12-inch main: 0.0019

*Notes:**A Daily Peaking Factor (PF) of 1.6 was used**An Hourly PF of 3.0 was used*** gph = gallons per hour*

⁸ The City of Tulare utilizes a Peaking Factor (PF) of 2.1 (Carollo Engineers, 2009); for the purposes of Alternative No. 2 discussed below, the City PF will be used, resulting in a Peak Hourly Flow of 273,000 gpd; Alternative No. 3 will conservatively use the PF of 3 as indicated in Table 5-1.

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The design criteria for the Treatment and Disposal facilities are summarized in **Table 5-2**.

Table 5-2: Treatment and Disposal Design Criteria			
Parameter	Units	Influent	Effluent
Average Dry-Weather Daily Flow (ADWF)	million gallons per day (MGD)	0.13	
Peak Daily Flow	MGD	0.21	
Peak Hourly Flow	MGD	0.39 ⁹	
BOD, 5-day	mg/l	350 ¹⁰	40
TSS	mg/l	400 ¹⁰	40
Total N	mg/l	70 ¹⁰	10
Ec	µmhos/cm	500+source	500+source
<i>Notes:</i> A Daily Peaking Factor of 1.6 was used An Hourly Peaking Factor of 3.0 was used			

5.1.2 Miscellaneous Design Parameters and Assumptions

The following assumptions and other parameters have been identified for use in the Alternative analysis that follows this subsection.

- Cost Index: The cost opinions have been prepared utilizing bid canvasses of past similar projects and the engineer's experience with similar projects. Cost opinions are presented in 2016 dollars.
- Discount Rate: 3%
- Useful Life
 - Collection System: 50 years
 - Community Wastewater Treatment Facility
 - Structures: 40 years
 - Equipment: 15-25 years¹¹
- Planning Period: 30 years

5.1.3 State Planning Priorities

All of the following alternatives, with the exception of Alternative No. 4: No Project, will fulfill the first State Planning Priority, which is stated in the Government Code, §65041.1(a):

To promote ... equity by rehabilitating, maintaining, and improving existing infrastructure that supports ... appropriate reuse and redevelopment of previously developed, underutilized land that is presently served by transit,

⁹ Alternative No. 2, discussed below, will use a Peak Hourly Flow of 0.273 MGD (see Table 5-1 and related footnotes for more information.

¹⁰ (Metcalf & Eddy, Inc, 2003), Table 3-15

¹¹ (State Water Resources Control Board, 1998)

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streets, water, sewer, and other essential services, particularly in underserved areas...

Each of these project alternatives provides a sustainable solution for wastewater service in a disadvantaged community already served by water, streets, fire protection, police protection, and dry utility services (power, telephone, cable, gas, etc).

5.1.4 Sustainable Water Resources Management Priorities

Various alternatives, with the exception of Alternative No. 4: No Project, will fulfill the following Sustainability Goals stated in *Opportunities to Advance Sustainability in California's CWSRF Program*¹²:

- Sustainability Goal 5: Encourage a robust analysis of alternatives
 - This Report fulfills the intent of Goal 5 by providing four project alternatives (three construction projects plus “no project”), fully analyzing each and preparing a comparison to identify the preferred alternative.
- Sustainability Goal 6: Encourage project alternative analyses to consider regional solutions
 - Alternative No. 2 fulfills this Goal by presenting and analyzing the potential for consolidation with the City of Tulare.
- Sustainability Goal 8: Consider localized community wastewater treatment solutions to address polluting septic systems and encourage responsible management plans.
 - Alternatives No. 1 and 3 fulfill this Goal by presenting potential solutions which would create a localized wastewater collection and treatment system.

5.2 Alternative 1: On-Site Systems with a Septic Tank Maintenance District

5.2.1 Description of Alternative

This alternative would entail removal and replacement or reconstruction of the existing septic systems on each individual property throughout the community. In order for this option to be feasible, the new septic systems would have to reduce nitrate levels in the wastewater to below 10 mg/l to avoid degrading the underlying groundwater. Such a level of nitrate reduction is difficult to achieve on a reliable basis in a non-mechanized treatment process. Installation of new septic treatment systems would be expensive to accomplish in an existing developed community where locations for the new septic systems and leach fields will be limited and difficult to find.

Construction and maintenance of the new septic systems and leach fields would be carried out by the Septic Tank Maintenance District, which would be formed prior to commencement of project construction. Easements for installation and maintenance for each system would be obtained from each affected property owner. Once construction is completed, the Septic Tank Maintenance District would continue routine maintenance of the septic systems. A monthly rate

¹² (US EPA, 2012)

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would be established and each property owner would pay his or her pro-rata share of the cost of such maintenance on an ongoing basis.

5.2.2 Life Cycle Cost of Alternative

The initial capital costs of this alternative include abandoning all existing septic systems and installing new septic systems throughout the community; the Operations & Maintenance (O&M) costs associated with this project consists of triennial septic tank pumping, annual inspections and general maintenance. An Engineer's Opinion of Probable Construction Cost has been prepared and is included in Appendix H. The costs associated with this alternative are briefly summarized in **Table 5-3**.

Table 5-3: Alternative No. 1 Total Cost Estimate	
Item Description	Subtotal
System Improvements	\$14,915,600
Contingency	\$2,983,120
Engineering	\$1,491,560
Total Project Costs	\$19,390,280
Annual Operations & Maintenance Costs	\$263,300
Cost per Month per Connection	\$74
Present Worth Cost	\$3,917,239
Total Project Costs + Present Worth Costs	\$23,307,519

The total project costs equate to a monthly cost of \$74 per property, which is approximately 3.1% of the community's MHI. A commonly referenced affordability level for sewer service as being is 1.5% of the community MHI; the monthly cost associated with this alternative would exceed the affordability level.

5.2.2.1 *Replacement Costs*

At the end of the septic system useful life, the replacement costs would be the same as installation costs plus inflation, generally at a rate of 3 percent and would be borne entirely by each property owner as the system fails; however, with proper maintenance, the septic systems will have a useful life beyond the planning horizon of this Report.

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5.2.3 Advantages and Disadvantages

The advantages and disadvantages of this alternative are presented in **Table 5-4**.

Table 5-4: Alternative No. 1 Advantages and Disadvantages	
Advantages	Disadvantages
Maintains local control of wastewater treatment.	High capital and O&M costs
	Difficulty denitrifying wastewater consistently
	Requires creation of new Special District
	Assessment of a fee on properties within the community
	Approximately 15% of lots within the community are below the 12,500 sf minimum lot size for individual septic systems. Implementing this alternative would require a variance to Tulare County's minimum lot size requirements. It is not clear how the County would make the required findings of necessity in order to approve the variance.
	Many lots within the community have limited space for a new septic system due to existing improvements (multiple buildings/dwellings). Tulare County typically requires an area set aside to provide for replacement in the event that the septic system fails. This requirement could be possibly waived for existing housing.

5.2.4 Climate Changes

This Alternative would not have an effect on climate change and would, at most, be minimally affected by climate change. If a drought persists in the area and water use is curtailed, there could potentially be a lower liquid to sludge ratio in the septic systems, which may lead to the need for more frequent pump-outs or maintenance costs.

5.3 **Alternative 2: Gravity Collection System and Consolidation with the City of Tulare**

5.3.1 Description of Alternative

This alternative consists of constructing a new gravity wastewater collection system, likely with at least one lift station, and connection to the City of Tulare's wastewater collection system. New

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sewer services and onsite plumbing would be required to connect each property to the new wastewater collection system and the existing septic systems would require proper abandonment.

5.3.1.1 *Project Components*

The components of this project alternative would entail the following items:

- Construction of
 - new gravity wastewater collection system throughout the Matheny Tract
 - one or more lift stations, including new points of electric service
 - sewer laterals from each property, with connection to each existing residence
- Connection to the City of Tulare's existing 27-inch sewer main at Paige Avenue and K Street
 - Construction of 2,900 feet of 12-inch sewer main in Pratt Street from Matheny Tract to Paige Avenue.
- In-place abandonment of existing septic systems and leach fields
- Conduct a Proposition 218 Election
- New utility account setup for all residents with the City of Tulare
- Payment of capacity fees to the City for each property
- Modifications to the City's existing Sewer System Management Plan (SSMP)
- Update the City's Report of Waste Discharge (RWD)

The City of Tulare has indicated the existing 27-inch sewer trunk main in Paige Avenue at Pratt Street is at 70 percent capacity and would be able to accommodate an additional 0.36 MGD. As discussed in Section 5.1, when utilizing the City's Peaking Factor of 2.1, the capacity needed for the project is 0.27 MGD; therefore the new improvements could make use of the existing 27-inch sewer main

A preliminary layout of the Matheny Tract collection system is shown in Appendix I. The layout includes 8-inch PVC sewer mains within the community and 8- to 12-inch sewer mains in Pratt Street, flowing north to the intersection of Paige Avenue and Pratt Street. Four-inch sewer service house branches would be provided to each residential property and six-inch sewer services would be provided to the churches and commercial establishments.

5.3.1.2 *Willingness of Neighboring System*

The City of Tulare was contacted to determine a willingness to be a participant in this study to identify alternative; the City indicated it was willing to be identified in the Report and would cooperate with requests for information to facilitate the analysis of the alternative. Willingness to be identified in the Report does not indicate willingness to approve the alternative, if it is identified as the preferred alternative. Early discussions with the City of Tulare have indicated the City is reluctant to extend wastewater service into the community as the City feels doing so would not be consistent with its General Plan or the City's growth objectives. Additional discussions and review of the alternative analysis by the City, as well as positive action by the

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City Council to approve the consolidation, would be required prior to acceptance of the alternative.

5.3.1.3 *Capacity of Neighboring System*

The City of Tulare's WWTP has two components, a Domestic Plant and an Industrial Plant.

The Domestic Plant has a permitted capacity of 6.0 MGD, with a plan to increase the capacity to 8 MGD in the future. Of the current 6.0 MGD capacity, existing development within the City uses 4.9 MGD and approved future development will utilize 0.2 MGD, for a total committed capacity of 5.1 MGD, some 85% of the total permitted capacity. Of the remaining 0.9 MGD capacity, the Matheny Tract use would be 0.13 MGD, bringing the plant to 87% of available capacity.

The Industrial Plant has a permitted capacity of 12.0 MGD with a total committed capacity of 7.6 MGD, approximately 65% of the permitted capacity.

The RWQCB begins to look for applications for plant and permit expansion when ADWF exceeds 80% of available capacity. The City filed a Report of Waste Discharge in support of phased increases in discharge flow including a future increase to 8.0 MGD; in the meantime, the City intends to postpone capital expenditures for the Domestic Plant upgrade by using the available treatment capacity of the Industrial Plant to treat the excess Domestic Plant influent.

The Matheny Tract would not be the trigger for the expansion of the domestic WWTP, since it is already in the window where planning for expansion must begin. However, the community should be required to pay its pro-rata share of the cost of the needed improvements at the WWTP. The project would be required to compensate the City for the capacity used by paying capacity and possibly Development Impact fees in an amount to be determined. An estimation of \$2,500 per equivalent dwelling unit has been included based on experience with similar, nearby communities, and can only be expected to rise with additional funding obligations.

5.3.2 Life Cycle Cost of Alternative

The initial capital costs of this alternative include constructing a wastewater collection system, abandonment of the existing septic systems, permitting fees and connection/ Development Impact fees. An Engineer's Opinion of Probable Construction Cost has been prepared and is included in Appendix J. The capital, operation and maintenance costs are briefly summarized in **Table 5-5**.

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Table 5-5: Alternative No. 2 Total Cost Estimate	
Item Description	Subtotal
Wastewater Collection System	\$5,539,001
Connection to City of Tulare	\$2,010,275
Contingency	\$1,509,855
Engineering	\$754,928
Total Project Costs	\$9,814,059
Annual Operations & Maintenance Costs	\$150,192
Cost per Month per Connection, minimum [1]	\$42
Present Worth Cost	\$2,234,478
Total Project Costs + Present Worth Costs	\$12,048,537
Notes: [1] The cost per connection is the current sewer rate charge by the City of Tulare, not a calculated rate. This rate may be higher at time of project implementation due to escalation of sewer rate or to additional fees assessed to Matheny Tract if a loan is required to construct the improvements.	

The ongoing responsibility for Operation & Maintenance (O&M) costs and Replacement costs of the project would be borne by the City; the funding for those expenses would be built into the sewer rates paid by the residents of the Matheny Tract.

The City's current sewer rate is \$42 per account on a monthly basis; this would be the minimum monthly cost per connection and could be higher if special fees were assessed for the Matheny Tract customers. Possible special fees could include Out of Service Area fees or loan repayment costs (see Section 5.6.1 for possible loan repayment scenarios). The current sewer rate is approximately 1.75% of the community's MHI. While this exceeds the lowest affordability level for sewer service (1.5%), it is within an acceptable range (1.5%-2.5%); the monthly rate would be considered appropriate for the community and would not be considered overly burdensome.

5.3.3 Advantages and Disadvantages

The advantages and disadvantages of Alternative 2 are presented in **Table 5-6**.

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Table 5-6: Alternative No. 2 Advantages and Disadvantages	
Advantages	Disadvantages
Wastewater collection and treatment becomes a City function	The local community may have little input into the ongoing operation of the system and perceive loss of control.
The costs to own and operate an individual wastewater treatment facility are avoided; the community would benefit from certain economies of larger-scale operation.	Reluctance of the City to provide wastewater service in this area.
The City receives additional operating revenues to operate and maintain their WWTP	
Lowest monthly operations costs of the alternatives considered	
Capital expenditure may be eligible for grant funding	
New special district formation is avoided	

5.3.4 Climate Changes

This Alternative would have an effect on climate change due to increased electricity consumption by the WWTP. This impact would be minimized by the use of high-efficiency electrical equipment and control strategies to minimize electricity use. Additionally, if a drought persists in the area and water use is curtailed, there could potentially be a lower liquid-to-sludge ratio in the wastewater treatment system, which could lead to operational adjustments at the City's WWTP; however, the City is already contending with this situation with its existing users due to the current drought.

5.4 Alternative 3: Gravity Collection System with Community Wastewater System**5.4.1 Description of Alternative**

This option would be similar to Alternative 2 in that a new collection system would be constructed to provide wastewater collection. Instead of connecting to the City of Tulare, a new wastewater treatment plant, designed to produce denitrified secondary effluent, would be constructed adjacent to the community. After treatment, the effluent would be discharged to evaporation/percolation ponds located at the treatment plant site. The plant would consist of the following components:

- **Influent Lift Station and Headworks:** In addition to lift stations located in the collection system, the plant will require an influent lift station located on the plant site. This lift station would discharge through an influent flow meter to an at-grade inclined auger,

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auto-cleaning fine screen to remove large solids. Grit removal would also be provided to avoid grit buildup in the downstream treatment processes.

- **Biological Process:** A number of candidate biological processes exist for treating wastewater. These include:
 - Sequencing batch reactor
 - Complete-Mix Activated Sludge (CMAS)
 - Extended Aeration Activated Sludge (ExAAS) Oxidation Ditch
 - ExAAS Biolac™
 - ExAAS Aeromod Sequox®
 - STM Aerotor™
 - Membrane Bioreactor (MBR)

For small communities constructing new wastewater collection and treatment facilities, the Biolac™ process has proven to be cost-effective and easy to operate, providing a reliable treatment system without the need of significant operator attention. There are a number of installations in California including the communities and cities of Orange Cove, Caruthers, Willows and Windsor. Effluent quality is good and the process can reliably denitrify wastewater to less than 10 mg/l.

The Biolac™ process consists of an aeration basin, clarifiers, sludge pumping and blowers. Layout of the proposed plant would be similar to the exhibit included as Appendix K, which was developed for a similarly-sized facility.

- **Sludge Handling:** Waste activated sludge (WAS) from the treatment process would be dried on sludge drying beds. The dried product could be disposed of at a bioenergy facility, composting facility or at a landfill.
- **Effluent Disposal:** Effluent would be applied to evaporation/percolation ponds located adjacent to the WWTP.
- **Other Facilities and Equipment:** Water for plant operation would be provided by the community's potable water system. Storm drainage runoff would be retained in an onsite retention pond. An emergency generator would be provided in the event of power failure. An office/lab building would be provided.
- **Disinfection of the effluent** is not required by the RWQCB for plants of this type when disposal is to evaporation and percolation.

5.4.2 Life-Cycle Cost of Alternative

The initial capital costs of this alternative include construction of a wastewater collection system, abandonment of the existing septic systems, construction of a new wastewater treatment facility and evaporation/percolation ponds for effluent disposal, permitting fees and connection fees. An

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Engineer's Opinion of Probable Construction Cost has been prepared and is included in Appendix L. The costs are briefly summarized in **Table 5-7**.

Table 5-7: Alternative No. 3 Capital and Operations Cost Estimate	
Item Description	Subtotal
Wastewater Collection System	\$5,539,001
Wastewater Treatment Plant	\$3,114,480
Contingency	\$1,730,696
Engineering	\$1,298,022
Total Project Costs	\$11,682,199
Annual Operations & Maintenance Costs	\$487,431
Cost per Month per Connection ¹³	\$136
Present Worth Cost	\$7,251,735
Total Project Costs + Present Worth Costs	\$18,933,934

The ongoing Operation & Maintenance (O&M) costs and Replacement costs of the project would be borne by the community. A public entity would likely need to take over operation and management of the collection and treatment facilities. This entity could be Tulare County through a Zone of Benefit or a special district formed for this purpose. Actual operation could be by employees of the operating entity, or operations could be contracted out to a private firm specializing in such services. A detailed estimate of O&M costs is included in the Engineer's Opinion of Probable Construction Cost for this alternative in Appendix L.

The residential sewer rate calculated above is \$136 per month for residential users, which is approximately 5.4% of the community's MHI; this rate would far exceed the 1.5% affordability level for sewer service.

5.4.3 Advantages and Disadvantages

The advantages and disadvantages of this alternative are presented in **Table 5-8**.

¹³ The monthly cost does not include any debt service component. The funding source may award 100% grant to a community that shows inability to repay a loan; it is anticipated the community could demonstrate a loan would be an excessive burden, eliminating any loan for the community to bear.

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Table 5-8: Alternative No. 3 Advantages and Disadvantages	
Advantages	Disadvantages
Maintains local control of wastewater collection and treatment.	Relatively high capital expenditures required
Capital expenditures eligible for grant funding	The costs to own and operate a community wastewater treatment facility are borne solely by the community, no economies of scale.
	Special district formation is required for funding and permitting.
	Does not conform to the RWQCB's policy opposing the proliferation of small wastewater treatment plants when consolidation with another agency is a viable option.

5.4.4 Climate Changes

This Alternative would have an effect on climate change due to increased electricity consumption by the WWTP. This impact would be minimized by the use of high efficiency electrical equipment and control strategies to minimize electricity use. Additionally, if a drought persists in the area and water use is curtailed, there could potentially be a lower liquid to sludge ratio in the wastewater treatment system.

5.5 Alternative 4: No Project**5.5.1 Description of Alternative**

This alternative would entail no improvements to the community; the existing septic systems would remain unimproved. As existing septic systems fail, they would either remain in use after failure or be replaced with similar systems, which would continue to impact the groundwater quality in the area.

5.5.2 Life Cycle Cost of Alternative

There are no capital or periodic O&M or replacement costs associated with this alternative. However, individual homeowners will be faced with replacing existing septic systems at some point, at a cost of \$6,000 to \$10,000 per household. Additionally, existing septic systems should be pumped and inspected on average every three years at an estimated cost of \$300 per incident. However, the equivalent monthly cost of these expenses would be significantly less than any of the other alternatives.

5.5.3 Advantages and Disadvantages

The advantages and disadvantages of this alternative are presented in **Table 5-9**.

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Table 5-9: Alternative No. 4 Advantages and Disadvantages	
Advantages	Disadvantages
No immediate capital expenditure required	Not a solution to the wastewater problems within the community
	Existing septic systems within the community will continue to degrade and fail, and the cost of the replacement would be entirely borne by the homeowner
	As septic systems continue to fail, potential public health effects may increase
	Degradation of the shallow groundwater table will continue

5.6 Comparison of Alternatives

Alternatives 1 through 3 are compared in various ways in the following section. Alternative 4 is not considered a viable alternative as it does not accomplish the main goal of the project, which is to provide a sustainable solution for the wastewater disposal in the community.

5.6.1 Cost Analysis

The costs of each alternative are summarized in the following **Table 5-10**. This data shows Alternative 2 as the lowest-cost alternative.

Table 5-10: Comparison of Cost Analyses			
Cost Category	Alt No. 1 – Onsite Septic Systems with District	Alt No. 2 – Connection to the City of Tulare	Alt No. 3 – Community Collection & Treatment System
Capital Cost	\$19,390,280	\$9,814,059	\$11,682,199
Annual O&M Cost	\$263,300	\$150,192	\$487,431
Estimated Monthly User Fee	\$74	\$42	\$136
Present Worth Cost	\$23,307,519	\$12,048,537	\$18,933,934
Ranking Based on Present Worth Costs	3	1	2
Ranking Based on Monthly User Fees	2	1	3

Financing construction of the improvements could be financed through a grant or loan program or combination thereof. The cost of any loan component could be passed along to the Matheny

SECTION FIVE**PROJECT FEASIBILITY REPORT**

Tract residents. The following table presents possible monthly charges for loan repayment; these charges would be in addition to those presented in **Table 5-10**.

Table 5-11: Loan Repayment Scenarios			
Loan / Grant Scenario	Alt No. 1 – Onsite Septic Systems with District	Alt No. 2 – Connection to the City of Tulare	Alt No. 3 – Community Collection & Treatment System
100% Grant / 0% Loan	\$0.00	\$0.00	\$0.00
75% Grant / 25% Loan	\$55.91	\$28.30	\$33.69
50% Grant / Loan	\$111.83	\$56.60	\$67.37
25% Grant / 75% Loan	\$167.74	\$84.90	\$101.06
0% Grant / 100% Loan	\$223.66	\$113.20	\$134.75
Notes: Repayment scenarios are based on 40-year term loan with 2.75% interest rate. The payments are monthly, per connection charges based on 298 connections.			

5.6.2 Construction Challenges

The alternatives that involve construction of improvements share some construction challenges while some pose unique ones. The challenges are presented in the following **Table 5-12** and which alternative each applies to is shown.

Table 5-12: Comparison of Construction Challenges			
Potential Challenge	Alt 1	Alt 2	Alt 3
Difficulty identifying existing onsite improvements, including location of existing septic systems for purposes of constructing new septic system improvements	X		
Possible interconnection of onsite wastewater infrastructure similar to the conditions found during the Pratt MWC Water System Improvement project	X	X	X
Identifying and purchasing property for constructing a WWTP			X

Alternative 2 has the least anticipated construction challenges, due in part to the consideration given to the placement of the new PMWC water main to allow for a future sewer main.

5.6.3 Critical Concerns

Each alternative has one or more critical concerns to be weighed in the comparison of alternatives identified in the following table.

SECTION FIVE**PROJECT FEASIBILITY REPORT**

Table 5-13: Comparison of Critical Concerns		
Alternative 1	Alternative 2	Alternative 3
Creation of a Special District	City of Tulare Agreement to Proceed With Consolidation	Creation of a Special District
Does not address state priorities regarding protection of groundwater and centralized wastewater treatment		Ongoing operation of a collection system and a WWTP
		Does not address RWQCB priorities for consolidation of WWTP's

The County of Tulare has indicated their preference to avoid creation of any new special districts as they are often unsustainable and challenging to manage.

Consolidation with the City of Tulare will be challenging; the City has indicated concern over any possible consolidations and extensive discussions will be required. Ultimately, without agreement from the City to accommodate Alternative 2, the potential project is infeasible.

5.6.4 Summary of Comparison

Table 5-14: Summary of Comparisons			
Comparison Category	Alternative Rating		
	Alt 1	Alt 2	Alt 3
Present Worth Cost	\$23,307,519	\$12,048,537	\$18,933,934
Present Cost Ranking	3	1	2
Monthly User Fees	2	1	3
Construction Challenges	2	1	2
Critical Concerns	1	2	3
Total Scoring	8	5	10

Alternative 2 is the least expensive option as well as the alternative with the least number of construction challenges and critical concerns. It is also the most preferred alternative by the County for several reasons:

- Alternative 2 capitalizes on the economies of scale associated with consolidation of two communities, particularly a very small community and a larger agency;
- Alternative 2 is the most viable from technical, fiscal, managerial and regulatory perspectives;

SECTION FIVE

- Protection of the groundwater supplies is paramount, continued operation of septic systems particularly at the density in Matheny Tract, as discussed in Alternative 1, would continue to endanger groundwater quality.
- Establishing a new entity to govern a new wastewater system would be required by the Alternative 3 including agency formation, LAFCo approval;

Assuming discussions with the City of Tulare progress positively, Alternative 2 is identified as the preferred alternative. It is noted that lack of concurrence from the City is a fatal flaw to Alternative 2. Alternative 1, Onsite Septic Systems would be the next preferred alternative; however, for the purposes of this report, Alternative 2 is presented as the preferred alternative.

6 SELECT PROJECT

6.1 Recommended Project Alternative

6.1.1 Project Description

Alternative No. 2, a gravity collection system and consolidation with the City of Tulare, is the preferred alternative. This alternative includes construction of a wastewater collection system within the Matheny Tract, at least one lift station located near Pratt Street, and a combination of 8-, 10- and 12-inch PVC sewer mains with manholes spaced at 350 feet.

6.1.2 Basis For Selection

The basis of selection considered a present-worth analysis of capital and O&M costs, construction concerns, and critical issues for each alternative. Once each area of comparison was discussed, each alternative was ranked against the other three and the alternative with the lowest 'score' was identified as the preferred alternative.

6.1.3 Community Outreach

There is a community organization within the Matheny Tract, self-identified as the Matheny Neighborhood Committee. The MNC holds semi-regular meetings to discuss concerns within the community; on April 17, 2014, two representatives from the Matheny Tract Wastewater Study team attended the committee meeting to discuss the initiation of this Study. During the meeting some of the alternatives and design criteria were discussed; the community members present mostly were receptive to hearing about the Study and are interested in seeing the preferred alternative. With the exception of two individuals who voiced concerns about becoming City customers and losing recent investment costs on improvements to their septic system, all in attendance seemed pleased to hear that a wastewater and water quality solution for the community was being considered.

6.1.4 Agency Receptiveness

Preliminary discussions with the City of Tulare have indicated the City is hesitant about endorsing the project. The City's Draft General Plan focuses growth in the northern portion of town and protects a green buffer around the WWTP; the City's concern is that a potential consolidation with the Matheny Tract could allow for growth in this area. Discussions between the County and City of Tulare are ongoing.

6.2 Design Criteria and Useful Life of the Project

The design criteria for the project were defined previously and are summarized in the following **Table 6-1**. The system will be designed to utilize PVC pipe, which will have a useful life of more than 50 years if properly maintained. The lift station(s) will have useful lives of 20-50 years, depending on which components are considered. The pumps and other mechanical

SECTION SIX**PROJECT FEASIBILITY REPORT**

components will require replacement long before the piping and lift station structures, although maintenance to surface coatings will be periodically needed.

Table 6-1: Collection System Design Criteria

Parameter	Units	Peaking Factor	Design Value
Average Dry-Weather Flow	gpd	-	130,000
Peak Daily Flow	gpd	1.6	208,000
Peak Hourly Flow	gpd gph	2.1 ¹⁴	273,000 11,375
Minimum Separation (from existing Water main)	feet		10
Minimum Cover	feet		4
Manhole Spacing, maximum	feet		350
Lift Station Depth, maximum	feet		25
Gravity Sewer Velocity	feet per second (fps)		Minimum: 2 Maximum: 10
Force Main Velocity,	fps		Minimum: 2 Maximum: 10
Gravity Sewer Slope, minimum [1]	ft/ft		8-inch main: 0.0033 10-inch main: 0.0024 12-inch main: 0.0019
Notes: [1] Identified minimum sewer slopes are specified in the City of Tulare Standards and Specifications			

6.3 Project Cost Estimate

A detailed Engineer's Opinion of Probable Construction Cost, including O&M present worth calculation, is included in Appendix J. A summary of those costs is provided in the following **Table 6-2**.

¹⁴ The City of Tulare utilizes a Peaking Factor of 2.1 (Carollo Engineers, 2009); for the purposes of the preferred alternative, the Peak Hourly Flow will be 273,000 gpd.

SECTION SIX**PROJECT FEASIBILITY REPORT**

Table 6-2: Project Cost Estimate	
Item Description	Subtotal
Wastewater Collection System	\$5,539,001
Connection to City of Tulare	\$2,010,275
Contingency	\$1,509,855
Engineering	\$754,928
Total Project Costs	\$9,814,059
Annual Operations & Maintenance Costs	\$150,192
Cost per Month per Connection [1]	\$42
Present Worth Cost	\$2,234,478
Total Project Costs + Present Worth Costs	\$12,048,537
Notes: [1] The cost per month is the City's current sewer rate and does not include any loan repayment component.	

6.4 Project Schedule

The project schedule is provided by duration, without identifying a start date, in **Table 6-3**.

Table 6-3: Selected Alternative Project Schedule		
Project Task	Duration	Notes
Prepare Environmental Documents	6 months	Can commence once preferred alternative is selected and necessary agreements are in place
Conduct Proposition 218 Election	6 months	Will begin once Project Feasibility Report is approved and necessary agreements are in place
Apply for Construction Funding	3 months	Duration is for preparation of the funding application; receipt of funds may take several years depending on the funding agency
Prepare Final Construction Documents	6 months	Will proceed concurrently with the Proposition 218 Election
Construction Bidding	6 months	Timing provides for preparation of bidding documents and actual bidding phase
Construction	12 months	Timing is based on construction of similar size and type of projects

SECTION SIX

6.5 Permits Required for Implementation

The project will require permitting during the planning stage as well as construction permits. **Table 6-4** lists the permits that will be required and what phase of the project they will be required during; this list may not be exhaustive depending on the timing of construction and permit requirements at that time.

Table 6-4: Selected Alternative Required Permitting		
Permit Name	Approving Agency	Project Phase
CEQA	County of Tulare	Planning
Indirect Source Review	San Joaquin Valley Air Pollution Control District	Planning
Storm Water Pollution Prevention Plan	SWRCB	Design
Common Use Agreement	Tulare Irrigation District	Design
Report of Waste Discharge	Regional Water Quality Control Board	Design
Encroachment Permit	County of Tulare	Construction

6.6 Key Issues

The key issues for this alternative include:

- County of Tulare Acceptance
 - The County will have to approve the selection of this alternative prior to moving forward with discussions with the City
- The Matheny Tract Acceptance
 - Further community outreach and discussion must be held to ensure the community residents support the solution
 - A vote may be required to obtain necessary majority approval to substantiate implementing a County ordinance that requires connection to the new wastewater collection system
- City of Tulare Acceptance
 - A letter of commitment backed by a City Council Resolution will be required prior to receiving funding
 - An agreement between the City and County will be required, detailing all of the terms and conditions of sewer service provision
- Obtain Construction Funding
 - The selected alternative has a capital improvement cost of \$12.05M including Contingency, Engineering and Construction Services (Inspection, Staking, Construction Engineer, etc)

SECTION SIX**PROJECT FEASIBILITY REPORT**

- 100% grant, up to \$4M is allowable for projects benefitting an SDAC with a wastewater rate between 1.5% and 2% of the community's MHI. The SWRCB may increase grant percentage to 100% with special approval.
- Entire project cost could be awarded as grant with special approval from the funding agency
- A loan could be required on the remaining project costs. Terms would include repayment over 30 years at an interest rate of half the general obligation rate. If loan repayment is required it would necessitate creation of a Special Assessment District for the Matheny Tract residences and businesses.

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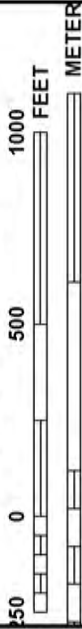
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Appendix A
FEMA – Firm Exhibits



MAP SCALE 1" = 500'



NFIP

PANEL 1262E

FIRM

FLOOD INSURANCE RATE MAP
TULARE COUNTY,
CALIFORNIA
AND INCORPORATED AREAS

PANEL 1262 OF 2550

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
TULARE COUNTY	065066	1262	E
TULARE CITY OF	065065	1262	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



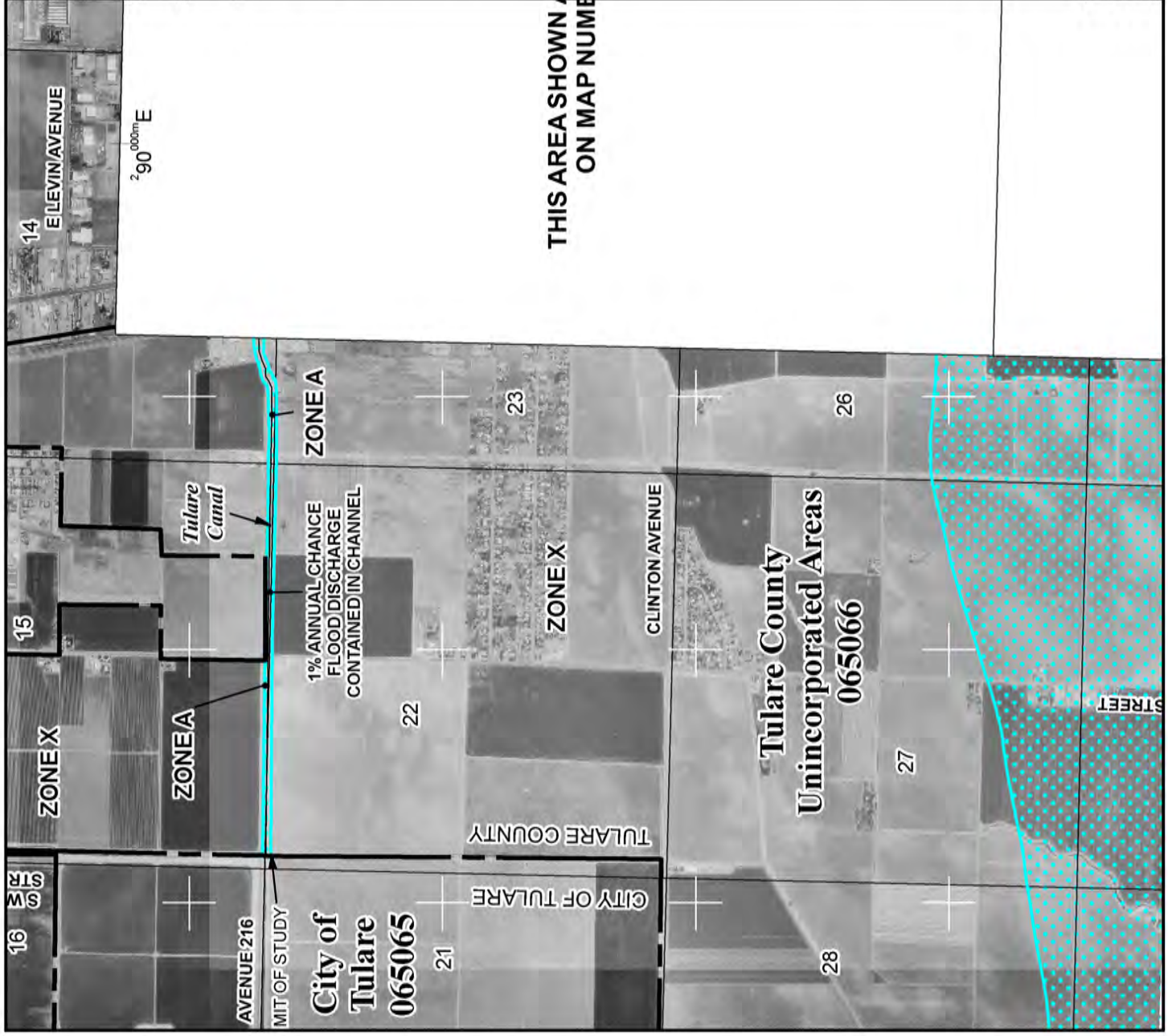
MAP NUMBER
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EFFECTIVE DATE
JUNE 16, 2009

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

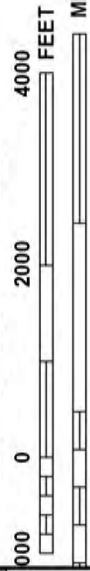
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



THIS AREA SHOWN
ON MAP NUMBER



MAP SCALE 1" = 2000'



NFIP

PANEL 1275E

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

TULARE COUNTY,
CALIFORNIA
AND INCORPORATED AREAS

PANEL 1275 OF 2550

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
TULARE COUNTY	065066	1275	E
TULARE, CITY OF	065065	1275	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
06107C1275E

EFFECTIVE DATE
JUNE 16, 2009

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Appendix B

NRCS Soils Map and Description

Tulare County, Western Part, California

108—Colpien loam, 0 to 2 percent slopes

Map Unit Setting

Elevation: 220 to 550 feet

Mean annual precipitation: 8 to 12 inches

Mean annual air temperature: 63 to 64 degrees F

Frost-free period: 250 to 300 days

Map Unit Composition

Colpien and similar soils: 85 percent

Minor components: 15 percent

Description of Colpien

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 6 inches: loam

Bt - 6 to 24 inches: loam

Btk - 24 to 60 inches: loam

C - 60 to 65 inches: sandy loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Moderately well drained

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: Rare

Frequency of ponding: None

Calcium carbonate, maximum in profile: 5 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.5 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 12.0

Available water storage in profile: High (about 10.7 inches)

Interpretive groups

Farmland classification: Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

Land capability classification (irrigated): 1

Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: C

Minor Components

Biggriz

Percent of map unit: 3 percent

Landform: Fan remnants

Hanford

Percent of map unit: 3 percent

Landform: Flood plains, alluvial fans

Gambogy

Percent of map unit: 3 percent

Landform: Flood plains, alluvial fans

Tujunga

Percent of map unit: 2 percent

Landform: Flood plains

Nord

Percent of map unit: 2 percent

Landform: Flood plains, alluvial fans

Akers, saline-sodic

Percent of map unit: 2 percent

Landform: Fan remnants

Data Source Information





































Soil Survey Area: Tulare County, Western Part, California

Survey Area Data: Version 7, Dec 6, 2013

Soil Map—Tulare County, Western Part, California (Matheny Tract)



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	                  	Water Features 	Transportation      Background 

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: <http://websoilsurvey.nrcs.usda.gov>
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 7, Dec 6, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 27, 2010—Jul 3, 2011

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.

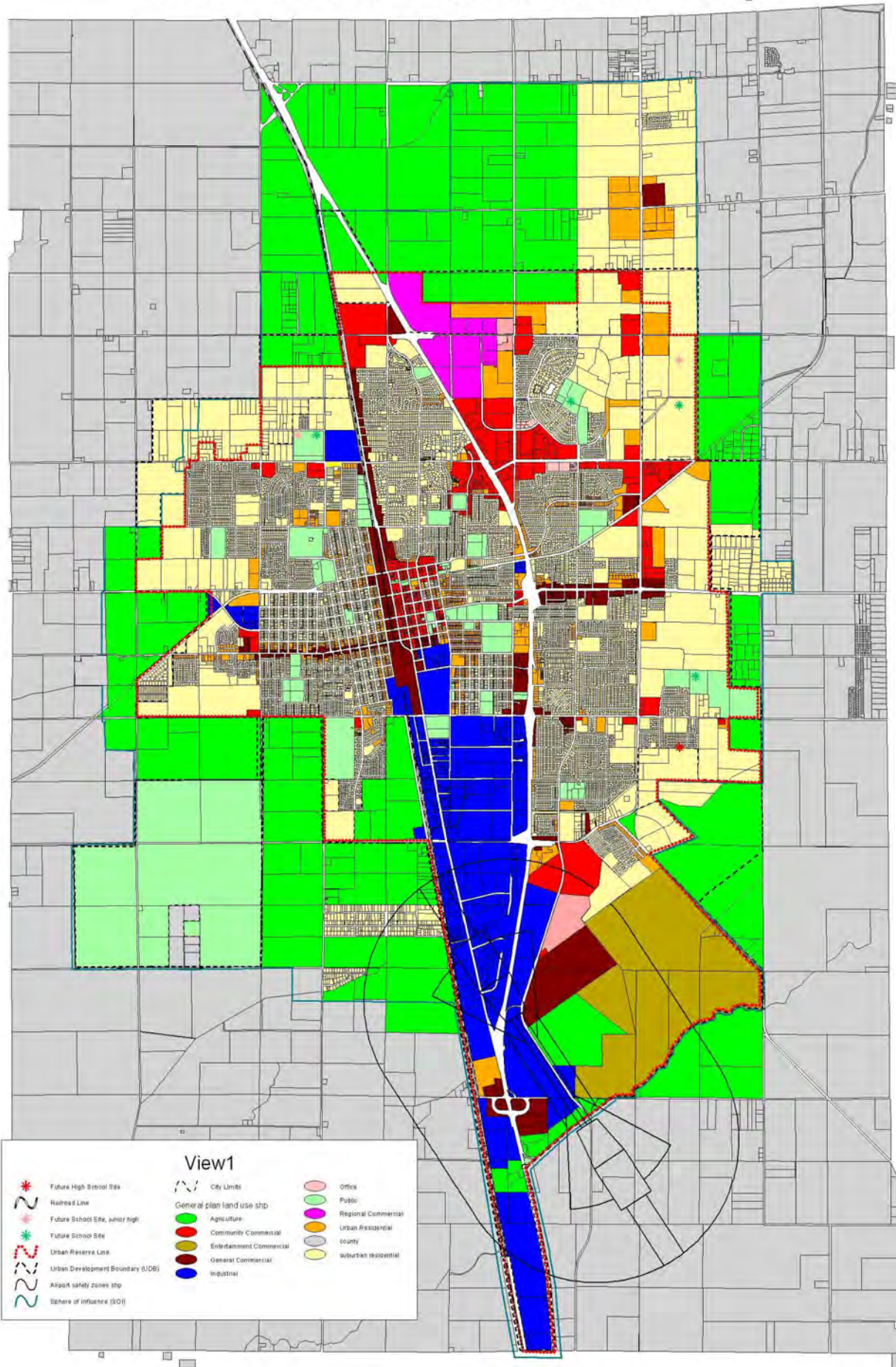
Map Unit Legend

Tulare County, Western Part, California (CA659)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
108	Colpien loam, 0 to 2 percent slopes	249.4	100.0%
Totals for Area of Interest		249.4	100.0%

Appendix C

City of Tulare General Plan Land Use Maps

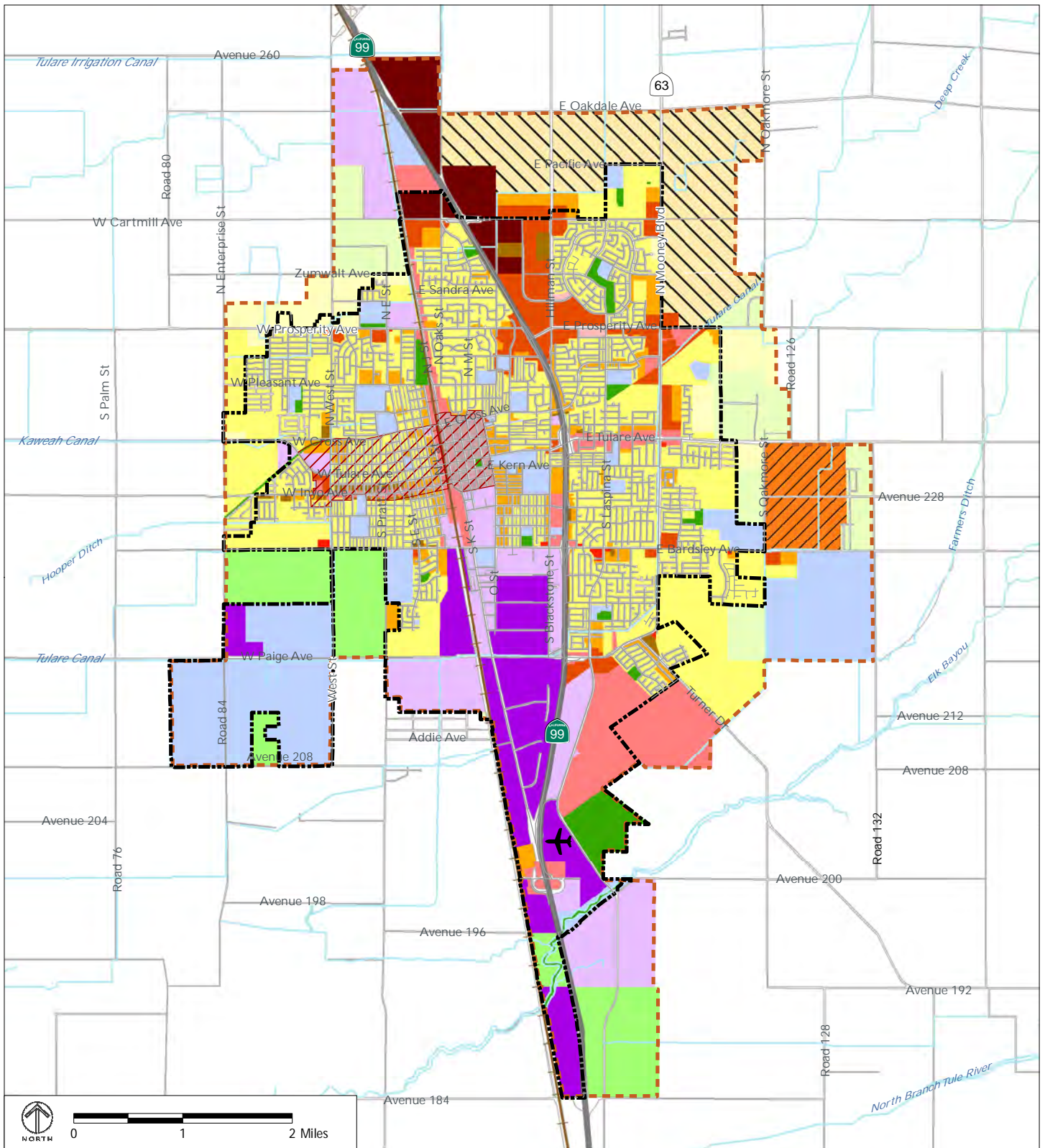
1993 General Plan land use map



JUNE 2009

2000 0 2000 Feet





Source: City of Tulare, Tulare County, and The Planning Center | DC&E.

- | | | |
|-----------------------------------|---------------------------|------------------------|
| City Limit | Neighborhood Commercial | Heavy Industrial |
| 2035 Urban Development Boundary | Community Commercial | Public/Quasi-Public |
| Rural Residential 0-2 | Regional Commercial | Parks & Recreation |
| Residential Estate 2.1-3 | Service Commercial | Open Space/Agriculture |
| Low Density Residential 3.1-7 | Central Business District | Village* |
| Medium Density Residential 7.1-14 | Office Commercial | COS North TOD |
| High Density Residential 14.1-29 | Light Industrial | TOD Overlay |

*Village areas require a Specific Plan and a General Plan Amendment prior to development.

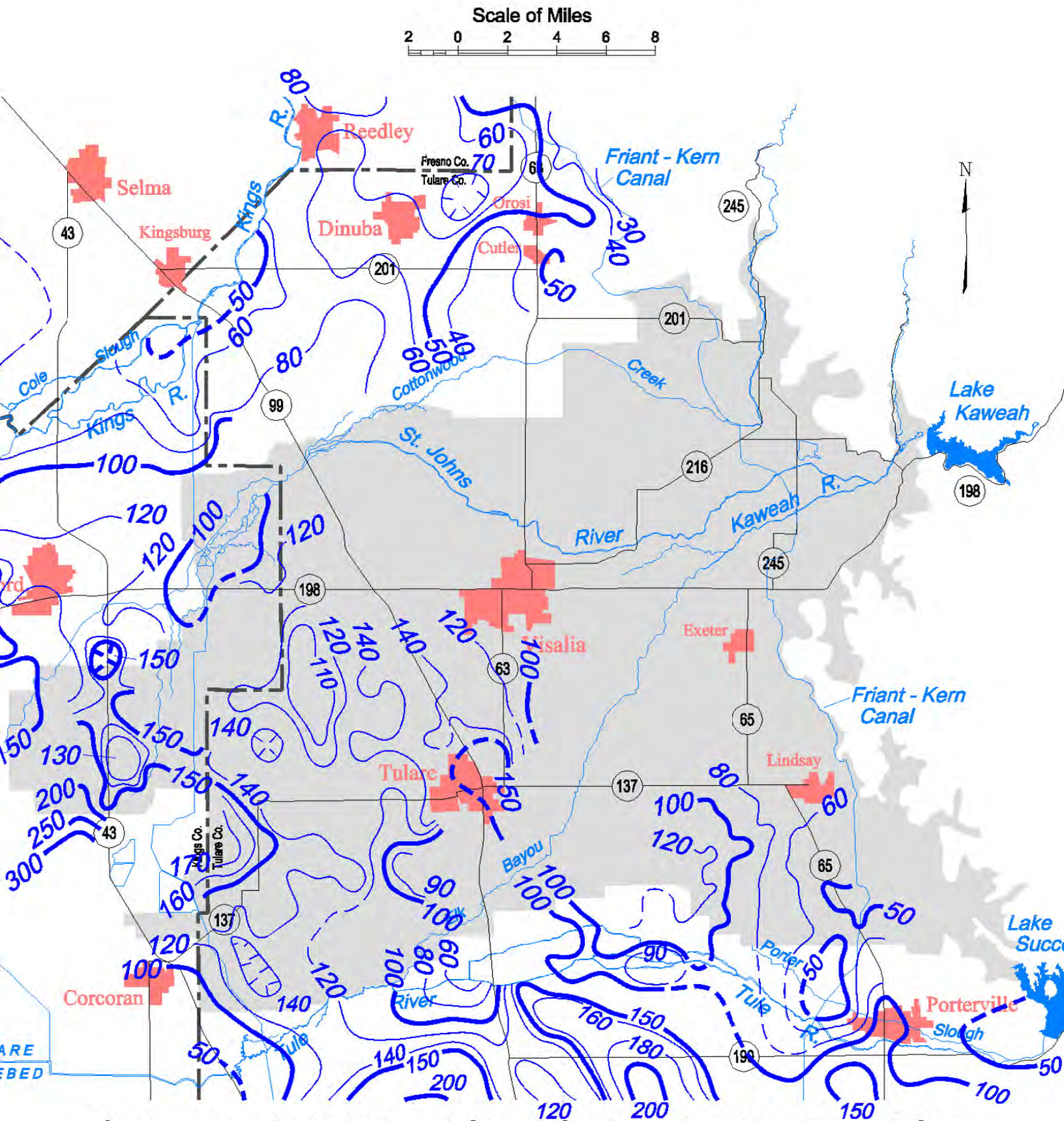
FIGURE 2-2
2035 GENERAL PLAN
LAND USE MAP

Appendix D

DWR Groundwater Contours

Kaweah Groundwater Basin

Spring 2010, Lines of Equal Depth to Water in Wells, Unconfined Aquifer



Contours are dashed where inferred. Contour interval is 10 and 20 feet.

Appendix E

Geotracker Data

[LINK TO THIS MAP](#)

GEOTRACKER

LAYERS
☒ SIGNIFIES A CLOSED SITE
☒ Leaking Underground Tank (LUST) Cleanup Sites
☒ Other Cleanup Sites
☒ Land Disposal Sites
☒ Military Sites
☒ WDR Sites
☒ Irrigated Lands Regulatory Program
☐ Permitted Underground Storage Tank (UST) Facilities
☒ Monitoring Wells*
* ZOOM IN TO SEE MWS
☐ DTSC Cleanup Sites
☐ DTSC Haz Waste Permit

MAP SIZE
640x480 ▾

OPTIONS
☒ Site List - [EXPORT TO EXCEL](#)

2 Sites

Google
[Measure a Distance](#)

200 m

[Report a map error](#)

☐ SHOW SITES WITHIN 1000 FEET OF THE FOLLOWING ADDRESS:

Go

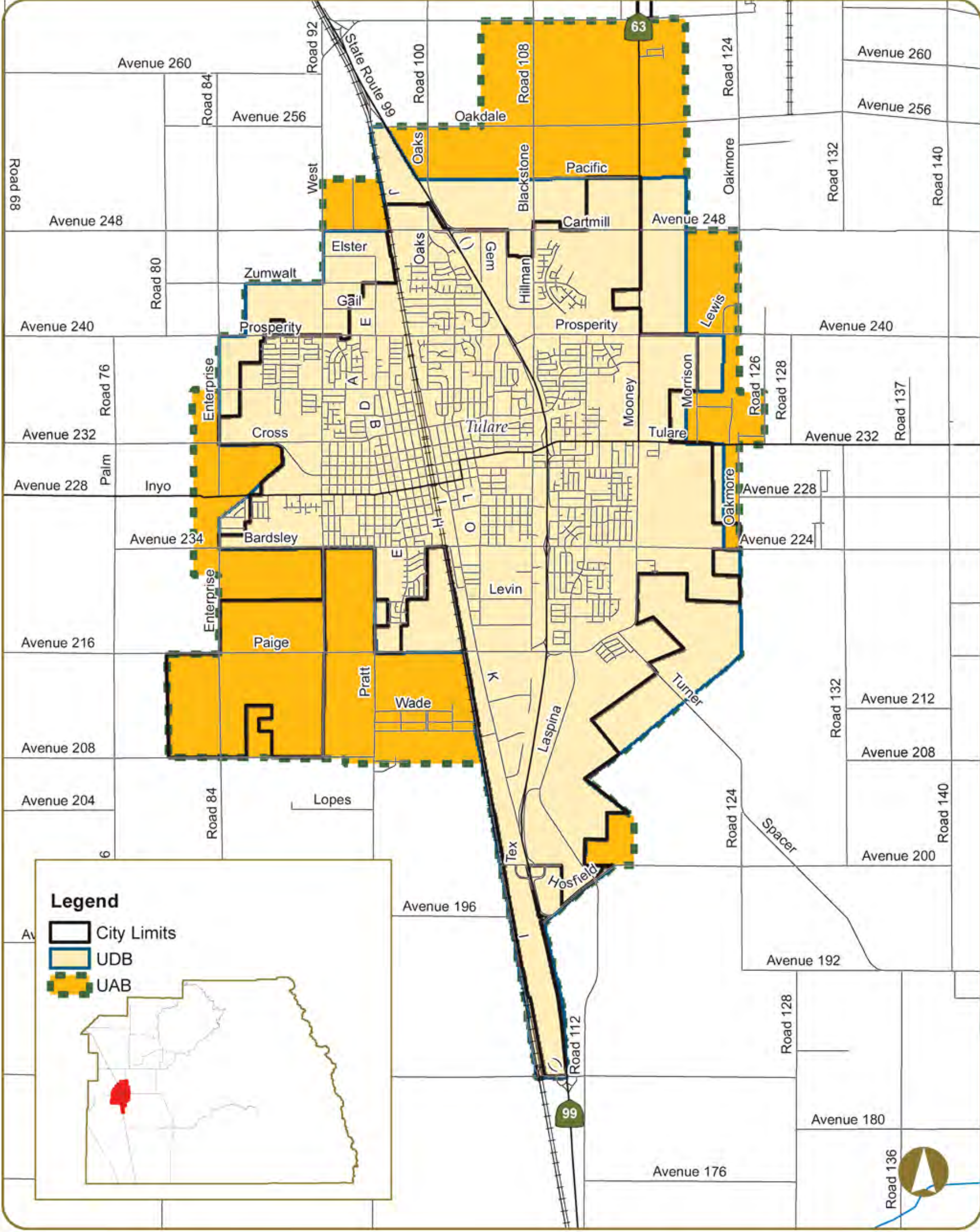
SITE LIST

<u>SITE NAME</u>	<u>GLOBAL ID</u>	<u>STATUS</u>	<u>ADDRESS</u>	<u>CITY</u>
<input checked="" type="checkbox"/> C & E FEED & AUTO PARTS	T0610700135	COMPLETED - CASE CLOSED	3878 PRATT S	TULARE
<input checked="" type="checkbox"/> CURTI & SONS, INC.	T0610700411	OPEN - REMEDIATION	3235 AVENUE 199	WAUKENA

MAP AN ADDRESS:

Go!

Appendix F
County of Tulare Land Use Map



City of Tulare | Figure 2.4-7

Appendix G

Referenced Waste Discharge Requirements

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. 85-170

WASTE DISCHARGE REQUIREMENTS
FOR
TIPTON COMMUNITY SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) finds that:

1. The Board, on 24 January 1975, adopted Order No. 75-009 which prescribed requirements for a discharge of domestic wastes from a wastewater treatment facility operated by Tipton Community Services District (hereafter Discharger). The facility is in the NE 1/4 of Section 36, T21S, R24E, MDB&M.
2. Waste discharge requirements established by Order No. 75-009 are being updated to be consistent with current plans and policies of the Board.
3. Existing treatment facilities consist of a clarigester and a trickling filter with an estimated design capacity of 0.48 mgd (21 l/sec).
4. Effluent waters from the trickling filter flow into two one-acre (0.4 ha) evaporation/percolation ponds. Pond effluent is used to flood irrigate 40 acres (16 ha) of land owned and controlled by the Discharger.
5. The current wastewater flow at the facility is approximately 320,000 gallons per day (14 l/sec).
6. The beneficial uses of the ground water are municipal, industrial, and agricultural supply.
7. The Board, on 25 July 1975, adopted a Water Quality Control Plan for the Tulare Lake Basin (5D) which contains water quality objectives. These requirements are consistent with that Plan.
8. The action to update waste discharge requirements for this existing facility is exempt from the provisions of the California Environmental Quality Act, in accordance with Section 15301, Title 14, California Administrative Code.
9. The Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge.
10. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

WASTE DISCHARGE REQUIREMENTS
TIPTON COMMUNITY SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

-2-

IT IS HEREBY ORDERED that Order No. 75-009 be rescinded and Tipton Community Services District, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. Discharge Prohibitions:

1. The direct discharge of wastes to surface waters or surface water drainage courses is prohibited.
2. The by-pass or overflow of untreated or partially treated waste is prohibited.
3. Milking animals are prohibited on the pasture area used for waste disposal.
4. Public access to the disposal area shall be prohibited.

B. Discharge Specifications:

1. Neither the treatment nor the discharge shall cause a pollution or nuisance as defined by the California Water Code, Section 13050.
2. The discharge shall not cause degradation of any water supply.
3. The discharge shall remain within the designated disposal area at all times.
4. The ~~30-day~~ average daily dry weather discharge flow shall not exceed ~~0.4~~ million gallons (18 l/sec).
5. The discharge from the oxidation pond shall not contain constituents in excess of the following limits:

<u>Constituents</u>	<u>Units</u>	<u>30-Day Average</u>	<u>Maximum</u>
BOD ₅ ^{1/}	mg/l	40	80
Settleable Solids	ml/l		0.5

^{1/} Five-day, 20° Celsius biochemical oxygen demand.

6. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer.

WASTE DISCHARGE REQUIREMENTS
TIPTON COMMUNITY SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

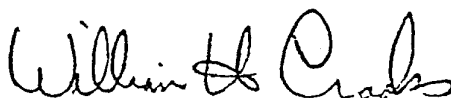
-3-

7. Reclaimed wastewater shall meet the criteria contained in Title 22, Division 4, California Administrative Code (Section 60301, et seq.).
8. The dissolved oxygen content of holding ponds shall not be less than 1.0 mg/l for 16 hours in any 24-hour period.

C. Provisions:

1. The Discharger may be required to submit technical or monitoring reports as directed by the Executive Officer.
2. The Discharger shall comply with the attached Monitoring and Reporting Program No. 85-170.
3. A copy of these waste discharge requirements shall be maintained at the treatment facility and be available at all times to plant operating personnel.
4. The Discharger shall comply with the Standard Provisions and Reporting Requirements, dated 1 October 1983, which are a part of this Order.
5. The Discharger shall report promptly to the Board any material change or proposed change in the character, locations, or volume of the discharge.
6. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this office.
7. The Board will review this Order periodically and may revise requirements when necessary.

I, WILLIAM H. CROOKS, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 28 June 1985.



WILLIAM H. CROOKS, Executive Officer

MM:bro:4/8/85

Attachments

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 85-170

FOR
TIPTON COMMUNITY SERVICES DISTRICT
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

EFFLUENT MONITORING

Effluent samples shall be collected from the discharge pipe from the oxidation pond to the pasture, except as otherwise noted. The following shall constitute the effluent monitoring program.

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Frequency</u>
BOD ₅ ^{1/}	mg/l	Grab	Quarterly 90/80
Settleable Solids	ml/l	Grab	Weekly 0.5
Dissolved Oxygen ^{2/}	mg/l	Grab	Weekly ≥ 1.0

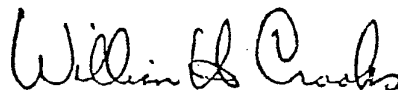
1/ Five-day, 20° Celsius biochemical oxygen demand.

2/ To be collected from the pond near the outlet
between the hours of 0800 and 0900.

REPORTING

Quarterly monitoring reports shall be submitted to the Board by the 15th day of the month following the calendar quarter. In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly the compliance with waste discharge requirements.

Ordered by



WILLIAM H. CROOKS, Executive Officer

28 June 1985

(Date)

MM:bro

4/8/85

INFORMATION SHEET

TIPTON COMMUNITY SERVICES DISTRICT WASTEWATER TREATMENT FACILITY TULARE COUNTY

Tipton Community Services District operates a sewage treatment and disposal system in the NE 1/4 of Section 36, T21S, R24E, MDB&M, approximately 1/4 mile (0.4 km) west of the City of Tipton. The present service population is approximately 1,500 with industrial connections limited to employee restrooms.

Treatment facilities consist of a clarigester and gravity feed trickling filter. Disposal is accomplished by two evaporation/percolation ponds; pond effluent is used to flood irrigate 40 acres (16 ha) of land owned and controlled by the City.

Local soils are alluvial fan deposits composed of poorly sorted silts, sands, and gravels, with occasional clay lenses. Due to the loose nature of the material, permeability is generally high.

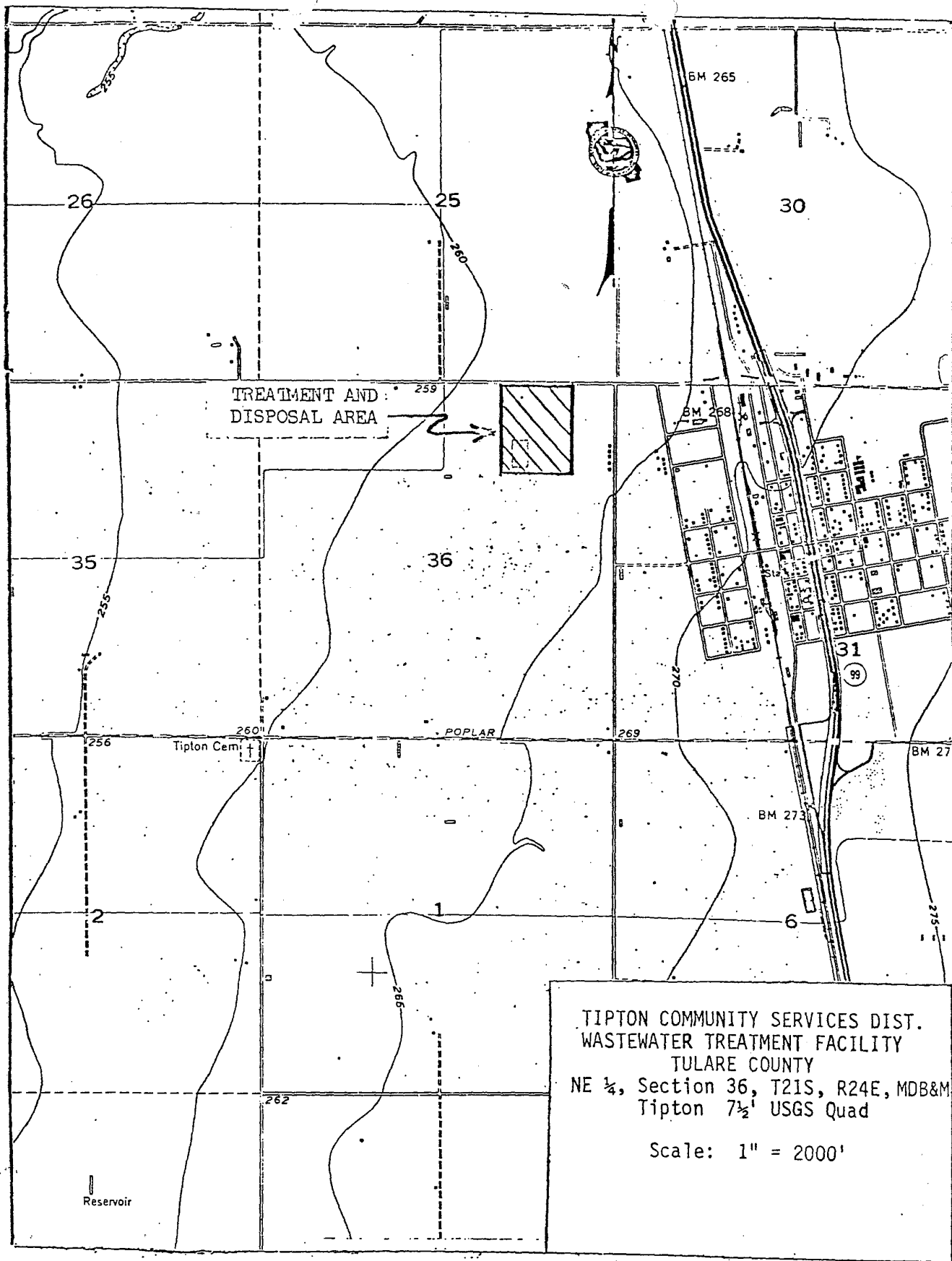
Ground water occurs at a depth of approximately 60 feet (18 m) and is of excellent quality with a specific conductance of 300 micromhos. This water is unconfined and moves in a southwesterly direction.

Average annual rainfall is approximately 8 inches (20 cm) and the average annual evaporation is approximately 80 inches (200 cm). During the 1968-69 flood season, which is considered equivalent to a 100-year flood, no rain flooding occurred in the vicinity of the treatment plant.

This is an existing facility and the action to update waste discharge requirements for this facility is exempt from the provisions of the California Environmental Quality Act, in accordance with Section 15301, Title 14, California Administrative Code.

MM:bro

4/8/85



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER R5-2013-0019

WASTE DISCHARGE REQUIREMENTS
AND
MASTER RECYCLING PERMIT
FOR
CITY OF TULARE
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

The California Regional Water Quality Control Board, Central Valley Region (hereafter Central Valley Water Board or Board) finds that:

1. The City of Tulare (hereafter City or Discharger) owns and operates a wastewater collection, treatment, and disposal system that provides sewage service for industry and about 60,000 residents. The Wastewater Treatment Facility (WWTF) and associated discharge locations are about seven miles southwest of the center of the City within Sections 15, 16, 17, 20, 21, 22, 27, 28, 29, 32, 33, and 34, T20S, R24E, MDB&M, as shown on Attachment A, a part of this Order.
2. The WWTF includes two separate wastewater treatment plants (Plants): one for domestic wastes (hereafter Domestic Plant), the other for primarily industrial wastes (hereafter Industrial Plant). The Domestic and Industrial discharges are combined (hereafter commingled discharge) in an aerated mixing box and discharged to about 245 acres of ponds for disposal by evaporation and percolation. A portion of the effluent discharged to ponds is recycled on about 2,620 acres of nearby farmland (hereafter, Use Areas), of which the Discharger owns 530 acres.
3. The Discharger submitted a Report of Waste Discharge (RWD), dated 24 June 2009, in support of phased increases in discharge flow. The phases include an increase in discharge flow in the Domestic Plant to 6 mgd and then 8 mgd in the future, and in the Industrial Plant to 9 mgd and then 12 mgd. The RWD includes detailed water and nitrogen balance calculations for each phase of implementation of proposed changes. The most significant changes consist of increased flow, additional treatment (including nitrogen removal), expanded recycling areas, and improved biosolids management facilities.
4. Waste Discharge Requirements (WDRs) Order R5-2002-0185, adopted 18 October 2002 for the Discharger, prescribes requirements for a monthly average commingled discharge not to exceed 9.39 mgd (4.39 mgd industrial and 5.0 mgd domestic) and includes water recycling requirements. Cease and Desist Order (CDO) R5-2002-0186, also adopted 18 October 2002, addresses the City's failure to comply with previous WDRs Order 91-133.
5. Order R5-2002-0185 does not reflect the current WWTF. The purpose of this Order is to rescind the previous Order and update waste discharge requirements, in part, to ensure the discharge is consistent with water quality plans and policies, to prescribe requirements that are effective in protecting existing and potential beneficial uses of receiving waters, and to reflect the Discharger's proposed ongoing expansion. This Order also includes a Master Recycling Permit to regulate recycled water projects that beneficially reuse WWTF effluent.

Domestic Discharge

6. The expanded Domestic Plant is an activated sludge plant designed to treat 6.0 mgd. It includes headworks with mechanical screens and an aerated grit chamber, primary and secondary sedimentation, biofiltration, denitrification; and sludge thickening, digestion, and drying. Attachments B and C, a part of this Order, depict a partial plan view of the WWTF and a process flow diagram for the Domestic Plant, respectively.
7. The collection system for the Domestic Plant includes residential and commercial connections. The City completed an Industrial Waste Survey in February 2012. The survey identifies five significant industrial users (SIUs) connected to the Domestic Plant, one of which has since closed. Findings 50 through 61 provide details about the City's Industrial Pretreatment Program.
8. Cease and Desist Order R5-2002-0186 finds that excessive nitrogen in the discharge resulted in groundwater nitrate concentrations exceeding the Maximum Contaminant Level (MCL) of 10 mg/L as nitrogen. In 2006, the Discharger completed a project to upgrade the Domestic Plant with plug flow anoxic basins designed for nitrogen removal to 10 mg/L or less at a flow rate of 6 mgd. The 2009 RWD examines the potential for ongoing groundwater degradation/pollution with nitrogen compounds and compliance with the 2002 CDO, and proposes as a remedy, achieving sufficient nitrogen removal in each Plant for commingled effluent total nitrogen of 10 mg/L or less.
9. In its current configuration, nitrogen removal in the Domestic Plant has fluctuated. In cold weather, effluent total nitrogen concentrations have generally been above the average for the year. For example, from December 2011 through the end of February 2012, concentrations ranged from about 9 mg/L to 19 mg/L with an average of 12 mg/L, while total nitrogen concentrations from July 2011 through September 2011 ranged from 4.4 mg/L to 11 mg/L with an average of 7.8 mg/L. The design firm responsible for the existing 6-mgd design, Carollo Engineers, Inc., asserts that the nitrogen removal in the winter months is related to the mixed liquor suspended solids concentration (MLSS). The MLSS was 102% and 108% of the annual average MLSS. Data for December 2012 and January 2013 show the domestic effluent TN to be below 10 mg/L with the MLSS increased to 113% and 112% of the annual average to compensate for the colder weather. Therefore, an increase in the MLSS to above 112% of the annual average would keep the plant below 10 mg/L TN. Increasing the MLSS in cold months is a common practice at activated sludge plants.
10. A technical report entitled, *Preliminary Design Report for Domestic Wastewater Treatment Plant Upgrade & Expansion, June 2009* (Domestic Plant Design Report), prepared for the City by Parsons Corporation, characterizes the capacity of the Domestic Plant and recommends specific upgrades required to achieve the City's planned expansion. The Domestic Plant Design Report describes multiple factors that limit the capability of the Domestic Plant to reliably produce effluent with 10 mg/L nitrogen or less. The report indicates that the most limiting factors in the design are the blowers, secondary clarifiers, and aeration basins, which are significantly undersized (for as low as 3.5 mgd capacity) for a 6-mgd design.

11. The design firm responsible for the existing 6-mgd design, Carollo Engineers, Inc., asserts that a comprehensive review of the process biology was not possible during preparation of the Domestic Plant Design Report because the Domestic Plant was not operating in a full denitrification mode at the time of the assessment. The nitrogen removal treatment deficiencies noted in the Domestic Plant Design Report may be overstated, given that the average Domestic Plant effluent total nitrogen concentration was 7.6 mg/L in 2012 while the average flow was 4.9 mgd and the City reportedly used no more than two thirds of the available aeration capacity at any time.
12. The Domestic Plant Design Report recommends that the Discharger implement a Modified Ludzack-Ettinger activated sludge system. The Modified Ludzack-Ettinger would make use of the existing treatment units, though it would still require significant changes to the Plant at an estimated cost of \$31 million for the 6.0-mgd design or \$46.5 million for the 8-mgd design. The report also recommends upgraded headworks and removal of the biofiltration unit, which is potentially counterproductive in terms of nitrogen removal.
13. The City issued a request for proposals on the upgrade project, which was divided into three phases. The City approved funds for the first phase, which was for upgraded headworks. The new headworks at the Domestic Plant, implemented on 16 December 2011, includes mechanical screens and grit removal for up to 8 mgd, with a wastewater transfer system that allows metered diversion of Domestic Plant influent to the Industrial Plant. Contingent upon the results of the technical reports required by Provision I.14 and I.15 of this Order, the Domestic Plant may need to be upgraded to consistently achieve its design effluent total nitrogen concentrations. In the meantime, the City intends to postpone capital expenditures for Domestic Plant upgrades by using the available treatment capacity of the Industrial Plant to treat excess Domestic Plant influent.
14. The Discharger's self-monitoring reports characterize the annual average Domestic Plant effluent in recent years as follows:

Parameter	Units	2009	2010	2011	2012
Flows	mgd	4.26	4.24	4.26	4.89
Total dissolved solids (TDS)	mg/L	244	231	244	214
Electrical conductivity (EC)	umhos/cm	528	502	497	466
Biochemical Oxygen Demand (BOD)	mg/L	9.2	10.2	10.5	13
Nitrate (as N)	mg/L	4.9	4.0	4.4	2.4
Ammonia (as N)	mg/L	3.2	2.7	3.4	2.2
Total Kjeldahl Nitrogen	mg/L	5.7	5.9	6.0	4.9
Total Nitrogen	mg/L	10.6	9.7	10.6	7.6

15. Analytical results from influent samples collected in January and July 2012 had average sodium and chloride concentrations of 65 mg/L and 41 mg/L, respectively. In terms of

dissolved inorganic salts, effluent character is not expected to be significantly different than influent. The RWD estimates Domestic Plant effluent sodium to be about 65 mg/L.

16. Discharger self-monitoring reports from 2010 through 2012 indicate that winter flows to the Domestic Plant are not significantly higher than summer flows, indicating that inflow and infiltration in general are not a problem for the Domestic Plant. However, large changes in flow on the order of 0.5 mgd to 1.0 mgd over the course of three to six months have been occurring since about January 2010.

Industrial Discharge

17. The collection system for the Industrial Plant includes commercial and industrial connections. Findings 50 through 61 describe the City's Industrial Pretreatment Program and sources of industrial wastewater.
18. Two gravity sewer mains flow into the Industrial Plant. One extends north from Levin Avenue to Cross Avenue. The other gravity main extends southeast along 'K' Street, serving the area from Levin Avenue to Avenue 200 and flows to the WWTF along Paige Avenue. A force main from the Kraft Cheese Company connects to the newly-constructed South Tulare Industrial Sewer, which extends south from Paige Avenue along Pratt Street to Avenue 196, where it turns east and crosses State Highway 99.
19. Relative to the domestic influent stream, the industrial influent is high strength in terms of organic material and nitrogen, with BOD and total nitrogen concentrations typically in excess of 1,400 mg/L and 50 mg/L, respectively. In addition to discharges from the City's dairy processing plants (e.g., cooling water, clean-in-place wastewater, and wash-down wastewater), discharges to the Industrial Plant include storm water, some domestic wastewater, septage, and sludge supernatant.
20. The Industrial Plant consists of: headworks with screening and grit removal; fats, oils, and grease (FOG) removal by dissolved air flotation (DAF); anaerobic digestion in the bulk volume fermenter (Fermenter); about 26 million gallons of flow equalization in five aerated basins; six sequencing batch reactors (SBRs); six denitrifying filters; two DAF units for thickening solids generated in the SBRs; three anaerobic digesters; and approximately 25 acres of sludge drying beds. Attachments B and D, a part of this Order, depict a partial plan view of the WWTF and a process flow diagram for the Industrial Plant, respectively.
21. Consistent with the time schedule for compliance in the 2002 CDO, the Discharger completed improvements to the Industrial Plant in November 2009. Until that time, the Industrial Plant did not consistently remove sufficient BOD to comply with WDRs Order R5-2002-0185. Immediately following the improvements, average effluent BOD dropped to less than 10 mg/L and BOD removal has met the effluent limits.
22. The aerated ponds north of the new SBRs are no longer in service. In 2004, the pond bottoms were compacted, sand lenses removed, and clay materials added where directed by a geotechnical engineer to minimize percolation. Geotechnical analysis of samples taken from the compacted pond bottoms demonstrated permeability less than 10^{-6} cm/second. The ponds

still contain residual settled solids that have potential to degrade groundwater and a time schedule to remove the settled solids from the ponds is appropriate.

23. The Fermenter produces methane from organic material in the industrial wastewater stream. The City collects the methane to generate electricity for the WWTF in onsite fuel cells. The Fermenter has a rated 65 to 75 percent BOD₅ removal treatment capacity for average monthly flows of 4.39 mgd and peak hourly flows up to 7.0 mgd. According to design documents, the average Fermenter influent chemical oxygen demand (COD) loading rate is not to exceed 135,000 lbs/day, and pH, alkalinity, and temperature must be within optimal ranges for treatment to perform as designed.
24. The SBRs are designed for BOD removal to 40 mg/L or less and nitrogen removal to 10 mg/L or less on a 30-day average basis. Nitrogen removal in the SBRs and denitrifying filters requires sufficient carbon to support denitrification. In order to maintain an adequate carbon to nitrogen ratio, the City limits flow through the Fermenter, by-passes treatment in the DAF unit, and allows a portion of the industrial wastewater to by-pass the aeration ponds. In September 2010, the City began to reduce the flow through the Fermenter from about 4.3 mgd to an average of 2.2 mgd in December 2010. It has continued to reduce flows through the Fermenter. The average flow was 1.7 mgd in the first half of 2012.

25. The Discharger's self-monitoring reports characterize the average Industrial Plant effluent in recent years as follows:

Parameter	Units	2009	2010	2011	2012
Flows	mgd	6.80	6.96	7.05	7.12
Total dissolved solids (TDS)	mg/L	501	434	425	378
Electrical conductivity (EC)	umhos/cm	1,398	822	774	737
Biochemical Oxygen Demand (BOD)	mg/L	127	39	4.6	9.2
Nitrate (as N)	mg/L	9.2	16	5.0	4.6
Ammonia (as N)	mg/L	74	2.4	0.7	0.9
Total Kjeldahl Nitrogen	mg/L	107	14	4.2	4.3
Total Nitrogen	mg/L	115	30	9.7	9.3

26. Analytical results from Industrial Plant influent samples collected in January and July 2012 had average sodium and chloride concentrations of 99 mg/L and 59 mg/L, respectively. In terms of dissolved inorganic salts, effluent character is not expected to be significantly different than influent. However, based on recent commingled effluent and Domestic Plant sample results, weighted by flow, Industrial Plant effluent sodium concentrations have been estimated to average 140 mg/L.

Commingled Discharge

27. The commingled discharge is currently comprised of about 60 percent Industrial Plant effluent and 40 percent Domestic Plant effluent.
28. The Discharger's self-monitoring reports characterize the average commingled effluent in recent years as follows:

Parameter	Units	2009	2010	2011	2012
Flows	mgd	11.1	11.2	11.3	12.0
Total dissolved solids (TDS)	mg/L	424	350	336	306
Electrical conductivity (EC)	umhos/cm	1,104	690	633	611
Biochemical Oxygen Demand (BOD)	mg/L	50	21	8.9	11.1
Nitrate (as N)	mg/L	7.8	13	4.7	3.5
Ammonia (as N)	mg/L	50	3.8	2.0	1.3
Total Kjeldahl Nitrogen	mg/L	65	9.6	5.4	4.0
Total Nitrogen	mg/L	73	21	10.5	8.1

29. WDRs Order R5-2002-0185 requires the City to perform regular commingled effluent monitoring and reporting. Analytical results from commingled effluent samples collected quarterly from 2011 through 2012 are generally consistent with previous sampling events. The results show average sodium and chloride concentrations of 110 mg/L and 68 mg/L, respectively.
30. The 2009 RWD indicates that, based on the design specifications for each Plant, commingled effluent total nitrogen will not exceed 10 mg/L.

Recycled Water

31. Recycled water is defined in Water Code section 13050 and in California Code of Regulations Title 22 section 60301.900. Based on the level of treatment at the WWTF, effluent delivered to recycled water users (Users) is "undisinfected secondary recycled water." Recycled water will be stored in unlined ponds and applied to Use Areas cropped with animal feed and fodder crops. For the purpose of this Order, "Use Area" means an area with defined boundaries where recycled water is used or discharged (Cal. Code. Regs., title 22, § 60301.920.).
32. Undisinfected secondary recycled water (domestic wastewater) contains human pathogens that are typically measured using total or fecal coliform organism as indicator organisms. The California Department of Public Health (Department of Public Health), which has primary statewide responsibility for protecting public health, has established statewide criteria for the use of recycled water (Cal. Code. Regs., title 22, § 60301 et seq.).

33. The Discharger's projected water balance depends heavily on proposed recycled water projects for disposal of effluent, which is a limiting factor for expansion. To allow the Discharger flexibility in changing the size and use of land areas for recycled water storage or land application, this Order includes a Master Recycling Permit, as described in Water Code section 13523.1(b).
34. In accordance with the statute, this Order includes WDRs and requires the Discharger to: comply with uniform statewide recycling criteria; establish and enforce rules and regulations for Users in accordance with statewide recycling criteria; submit quarterly reports summarizing reclaimed water use; and conduct periodic inspections of the recycled water use sites. The City submitted a draft Recycled Water Ordinance with the June 2009 RWD, but has not adopted the Ordinance. Provision I.22 requires the City to establish and have the authority to enforce rules and/or regulations for recycled water, in accordance with statewide recycling criteria. Attachment E, attached hereto and made a part of this Order by reference, summarizes requirements of the uniform recycled water criteria. However, the City and Users will need to consult the California Code of Regulations, the Health and Safety Code, and the Water Code directly to ensure compliance with the statutes and regulations.
35. A 1996 Memorandum of Agreement (MOA) between the Department of Public Health and the State Water Board on the use of recycled water establishes basic principles relative to the agencies and the regional water boards. In addition, the MOA allocates primary areas of responsibility and authority between these agencies, and provides for methods and mechanisms necessary to assure ongoing, continuous future coordination of activities relative to the use of recycled water in California. This Order implements the applicable portions of the Title 22 water recycling regulation in accordance with the MOA.
36. On 8 January 2003, the Department of Public Health distributed a memorandum to all regional water quality control boards recommending that orchard and vineyard crops be irrigated with water that meets, at minimum, the requirements for disinfected secondary-2.2 recycled water, as defined in section 60302.220 of Title 22.
37. On 3 February 2009, the State Water Board adopted Resolution 2009-0011, *Adoption of a Policy for Water Quality Control for Recycled Water* (Recycled Water Policy). The Recycled Water Policy promotes the use of recycled water to achieve sustainable local water supplies and reduce greenhouse gas emissions.
38. On 23 April 2009, the Central Valley Water Board adopted Resolution R5-2009-0028, *In Support of Regionalization, Reclamation, Recycling and Conservation for Wastewater Treatment Plants* (the "Regionalization Resolution"). The Regionalization Resolution encourages water recycling, water conservation, and the regionalization of wastewater treatment facilities. It requires dischargers to document:
 - a. Efforts to promote new or expanded wastewater recycling opportunities and programs;
 - b. Water conservation measures; and
 - c. Regional wastewater management opportunities and solutions (e.g. regionalization).

Recycling of effluent by the Discharger is consistent with the intent of the State Water Board's Recycled Water Policy and the Central Valley Water Board's Regionalization Resolution.

39. The City currently discharges commingled effluent from the WWTF to eight large ponds (2,640 acre-ft total) for disposal and storage. According to evaporation estimates and Use Area recycled water application rates from the City's Annual Land Management Report for 2011, an average of approximately 3.3 mgd (29 percent) percolates to groundwater, 0.8 mgd (6.9 percent) evaporates, and recycled water projects account for the remaining 7.2 mgd (64 percent).
40. At the time of adoption, WDRs Order R5-2002-0185 authorized the discharge of up to 9.39 mgd of commingled effluent to 200 acres of disposal and storage ponds, with approximately 1,330 acres of recycled water application areas (Use Areas) available. The Use Areas consisted of about 800 acres of City-owned land and 530 acres owned by Thomas and Ronald Clark (hereafter Clarklind Farms).
41. Water Reclamation Requirements Orders 90-058 and 90-059 regulate the Clarklind Farms Use Areas. Clarklind Farms has authorized the City to perform required monitoring and reporting tasks required by the Water Reclamation Requirements.
42. Since adoption of WDRs Order R5-2002-0185, the City has prepared additional Title 22 engineering reports and submitted supporting RWDs (or reports of water reclamation). The total land area of proposed recycled water projects for the City is about 4,000 gross acres. However, some of the Use Areas have been removed or otherwise taken out of service, including about 150 acres of Clarklind Farms land dedicated to pistachios, 160 acres of City land converted to percolation ponds, about 160 acres of land now used for application of dairy wastewater, and other properties that were not included in the 2009 RWD or subsequent documents. Attachment F, a part of this Order, is a map of the recycled water Use Areas.
43. For the purpose of water and nutrient balance calculations, the RWD assumes that 90 percent of each Use Area will be used for recycling on crops, with an irrigation efficiency of 70 percent. The RWD uses published reference evapotranspiration and crop coefficients to estimate irrigation water requirements.
44. The table below presents the Use Areas by owner, as described in the RWD and subsequent documents (updated in August 2012). For each Use Area, the table indicates the estimated acreage that will receive wastewater (typically 90 percent of gross parcel acreage). The Department of Public Health has approved a recycled water Title 22 engineering report for each of the listed recycled water projects. The gross land area of the proposed Use Area properties totals about 2,920 acres, of which about 2,620 acres is available for application of recycled water.

<u>Owner</u>	<u>Project Name</u>	<u>Acres</u>
City of Tulare	City Property	533
Clark, Thomas and Ronald	Clarklind Farms Property	313

<u>Owner</u>	<u>Project Name</u>	<u>Acres</u>
Colson, Patricia	Heitz Ranch Property	95
Walter Colson Admin. Trust	Colson Property	221
De Azevedo-Anker, Filomena	De Azevedo Property	45
Eddy, Jack and Mary	Eddy Property	417
Faria, Raymond and Letha	Faria Property	68
Heiskell Family Farms	Hillman Property	178
Martin, Mary	Mello-Martin Property	616
Wilbur Family Trust	Wilbur Property	138

45. Recycled water projects are limited to areas for which the Department of Public Health has approved a Title 22 engineering report and for which prerequisites to discharge listed in the Water Code (Wat. Code, § 13264, subd. (a).) have been met. The Department of Public Health issued a letter on 3 August 2012 approving the Title 22 engineering reports for all the recycled water projects listed in Finding 44.
46. The Discharger submitted a letter on 28 August 2012 updating the 2009 RWD with the current effluent disposal capacity. The letter includes water and nutrient balance calculations prepared by a civil engineer indicating that, with the existing effluent storage ponds and the Use Areas listed above, the Discharger has disposal capacity for a flow of up to 16.0 mgd. On 26 March 2013, the City's contract civil engineer informed the Central Valley Water Board that the disposal capacity for the WWTF is now limited to 16.0 mgd because the Lopes Property (a 148-acre Use Area) has changed ownership and will not receive effluent from the WWTF.
47. The Discharger submitted a draft Recycled Water Ordinance as part of the RWD. Once it has adopted a Recycled Water Ordinance, or otherwise establishes the authority to enforce rules and/or regulations for Users governing the design and construction of recycled water use facilities and the use of recycled water, the City may issue water recycling permits to Users of WWTF effluent. In the meantime, the proposed recycled water projects appear to meet the statutory prerequisites to discharge (Wat. Code, § 13264, subd. (a).).
48. Water balances in the 2009 RWD demonstrate the pond storage and Use Area acreage requirements to accommodate multiple discharge flow scenarios, including commingled effluent flows of 15 mgd, 18 mgd, and 20 mgd. From the RWD, the approximate effluent storage capacity and Use Area acreage required for each scenario is listed below.

	<u>Units</u>	<u>Scenario 1</u>	<u>Scenario 2</u>	<u>Scenario 3</u>
Commingled Effluent Flow	mgd	15	18	20
Farmland Required (gross)	acres	2,300	3,000	3,300
Effluent Storage Required	acre-ft	2,700	3,000	3,300

49. The immediately applicable commingled effluent flow limitation in this Order is based on the existing effluent disposal capacity. Under the conditions of the Master Recycling Permit, the

Discharger may expand the Use Areas. The commingled effluent flow limit may incrementally increase with Executive Officer approval, according to Provision I.17 and Provision I.18, up to the treatment capacity of the WWTF (20 mgd maximum).

Pretreatment

50. Pursuant to California Code of Regulations, title 23, section 2233, the Discharger is required to establish a pretreatment program to protect the WWTF from upset as well as protect sludge quality and groundwater quality underlying the WWTF and Use Areas.
51. The 2002 WDRs found that the City's pretreatment program was inadequate. Most of the Significant Industrial Users (SIUs) in the City were not compliant with local limits, but the City had not performed any enforcement activity. The 2002 CDO required the City to implement an Industrial Pretreatment Program conforming to Title 40, Code of Federal Regulations (C.F.R.), part 403. The City modified its Sanitary Sewer Ordinance to implement significant changes to its Industrial Pretreatment Program. On 30 January 2004, the Central Valley Water Board adopted Resolution R5-2004-0019, approving the City's updated Industrial Pretreatment Program.
52. In January 2010, Central Valley Water Board staff and a contractor for the United States Environmental Protection Agency conducted a pretreatment compliance inspection. The Pretreatment Compliance Inspection Report, transmitted 26 August 2011, revealed numerous industrial pretreatment program-related violations of WDRs Order R5-2002-0185, including failure to implement a system of progressive enforcement against industrial users that violated pretreatment limits. Central Valley Water Board staff requested a written description of measures the City has or would implement to resolve the pretreatment program deficiencies identified in the report.
53. The City's historic lack of a proper pretreatment program and failure to enforce the program it had in place resulted in long-term discharge to the collection system of high strength wastewater. The high strength of the industrial influent appears to have caused (either directly or indirectly) violations of effluent and groundwater limits of WDRs Order R5-2002-0185. Violations have included exceedances of groundwater limits for EC, sodium, and nitrate, and effluent limits for EC and biochemical oxygen demand. Findings 93 through 95 summarize the City's past compliance issues.
54. The City stopped issuing penalties for EC violations in August 2009, to allow SIUs to adjust wastewater pH, which the City reportedly expected would aide in startup of the new Industrial Plant improvements in November 2009.
55. The dairy processing wastewater that dominates Industrial Plant influent flow has relatively low pH and high BOD and nitrogen concentrations. The City uses biological treatment processes to remove BOD and nitrogen, which requires a relatively narrow pH range. Fluctuations in pH, exacerbated by the failure of industrial sewer users to comply with local limits for pH, require the City to adjust influent wastewater pH to sustain the Plant microbes. The City's continuous influent pH monitoring data shows wide and rapid fluctuations in pH, including a three-hour period in August 2010 when the pH changed from 4.5 to 10.5. In the past, the City used

various inorganic chemical means to stabilize pH, including sodium hydroxide and magnesium oxide, which increased the salinity of the discharge. Since about 2006, the City has adjusted the pH of influent industrial wastewater with ammonia. Until the City made over \$85 million in Industrial Plant upgrades, primarily to improve treatment for removal of nitrogen, Industrial Plant effluent nitrogen often exceeded 100 mg/L. The City discharged commingled effluent with an average total nitrogen concentration of 85 mg/L as recently as 2008. Total nitrogen concentrations dropped significantly, to near 10 mg/L, once construction projects were completed and operational improvements were implemented.

56. On 6 March 2012, the City adopted a revised Sanitary Sewer Ordinance that includes significant changes to the Industrial Pretreatment Program. The changes, intended to address the deficiencies noted in the 26 August 2011 Pretreatment Compliance Inspection Report, include updates for consistency with streamlining regulations, clarification of violation definitions and enforcement protocols, and supporting technical justification for BOD/TSS limits and changes to salinity/pH limits. The work included preparation of an Enforcement Response Plan, which details how, and the circumstances under which, the City will pursue enforcement.
57. Changes to local limits for salinity and pH in the revised Industrial Pretreatment Program incorporate allowances for elevated EC when there is sufficient evidence to show that the excess EC is due to nitrate or ammonia in the wastewater. The Ordinance specifically credits the SIU 4.0 umhos/cm for each milligram per liter of nitrate or ammonia in the discharge to the sewer. The City reports that the theoretical relationships with EC are about 5.1 umhos/cm per mg/L nitrate and 5.3 umhos/cm per mg/L ammonia. The City expects the credit to encourage SIUs to comply with local limits for pH by addition of nitric acid and ammonia, rather than with inorganic acids and bases. Nitrogen removal treatment in the Industrial Plant can remove nitrate and ammonia, but inorganic acids and bases add salts that pass through the Plant, resulting in excessive discharge salinity.
58. The revised Industrial Pretreatment Program updates the local limits for discharges to the sewer collection system. The changes consist of a broader allowable pH range of 5 to 11 rather than 6 to 11, and the EC "credit" described in Finding 57. The local limits apply to all dischargers to the sewer collection system. Through its Industrial Pretreatment Program, the City also has the authority to set more stringent local limits for Categorical Industrial Users consistent with federal industrial pretreatment regulations (e.g. 40 C.F.R. § 405.).
59. On 15 March 2012, the City submitted an evaluation of the Industrial BOD and TSS limits certified by a licensed civil engineer. The evaluation includes calculated BOD and TSS loading rates for each significant industrial user permitted to discharge to the sewer. According to the evaluation, while the average Industrial Plant influent flow is about 59 percent of the hydraulic capacity, the average mass loading to the Industrial Plant of about 95,000 pounds of BOD per day is 43 percent of the design treatment capacity.
60. On 15 March 2012, the City submitted an updated Industrial User Survey it completed in February 2012. Eight SIUs discharge to the Industrial Plant. The majority of wastewater flow is from processors of cheese, butter and whey, and other dairy-based products, including Land O'Lakes, Kraft Cheese Company, Saputo Cheese Company, Morningstar Foods (formerly

Tulare Culture Specialists), and Dreyers Grand Ice Cream (formerly Ice Cream Partners and Haagen Dazs). The SIUs connected to the Industrial Plant that are not dairy processors include Ruiz Food Service (food processing) and a food transportation company with truck washout operations. Four SIUs discharge to the Domestic Plant, including food transportation companies with truck washout operations, and Corpak, Inc. (cardboard manufacturing).

61. Further technical and legal review is necessary to determine whether the revised Industrial Pretreatment Program meets all applicable State and federal requirements. Approval of the Industrial Pretreatment Program will occur by separate order once these reviews are complete.

Wastewater Collection System

62. On 2 May 2006, the State Water Resources Control Board (hereafter State Water Board) adopted a General Sanitary Sewer System Order (State Water Board Water Quality Order 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*) (the "General Order"). The General Order requires that all public agencies that own or operate sanitary sewers systems greater than one mile in length comply with the General Order. The Discharger's collection system is greater than one mile in length. The Discharger submitted a Notice of Intent (NOI) for coverage under the general permit to the State Water Resources Control Board in July 2006 and is covered under the General Order.
63. The Discharger has reported 9 sanitary sewer spills in 2011 and 2012. Most of the spills were reportedly caused by obstruction of wastewater flow by grease deposition in the sewer. Three spills were reported as violations of the General Order. No spills occurred to surface water, but were reportedly all confined to land. All the reported spills were cleaned up and disinfected within 24 hours. The spills do not appear to be recurring.

Biosolids

64. The 2002 CDO found that the Discharger's use of unlined sludge drying beds may have caused groundwater to exceed groundwater limitations in the 2002 WDRs, and threatened to violate Sludge Specifications. The 2002 CDO required improvements to sludge management that would comply with WDRs, specifically the requirement that treatment or storage of sludge, solid waste, and biosolids on the property of the WWTF must be temporary and controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate groundwater limitations.
65. When the City proposed to line the existing sludge drying beds with soil cement, Central Valley Water Board staff expressed concern about the long-term reliability and performance of soil cement as a liner material. In partnership with 13 other cities in the Tulare Lake Basin, the City hired a consultant to prepare a technical report supporting the technology. Central Valley Water Board staff reviewed a draft version of the report, entitled *Soil-Cement Lining of Sludge Drying Beds Best Practicable Treatment and Control for Solar Drying of Municipal Wastewater Sludge*. In a 24 July 2003 meeting with the City of Tulare, Central Valley Water Board staff provisionally accepted the report's premise that soil cement may be considered an acceptable technology to line remote sludge drying beds.

66. Key conditions of acceptance of soil cement lined sludge drying beds include: comprehensive design criteria, stringent construction quality assurance and quality control, periodic maintenance, and effective monitoring of containment integrity. Municipalities are expected to discontinue use of the soil cement lined beds, implement an alternative method of sludge drying, and implement groundwater remediation measures if they cannot demonstrate containment is sufficiently protective of groundwater.
67. The Discharger completed construction of approximately 12 acres of soil cement lined sludge drying beds for Domestic Plant sludge in 2005. The sludge drying beds include one demonstration bed that incorporates a leachate collection and recovery system. All the beds feature a 14-inch soil cement liner. The demonstration bed also includes a continuous 30-mil polyvinyl chloride (PVC) liner underlying the soil cement. A gravel bed between the liners drains to a sump. The City of Porterville submitted the results of a hydraulic conductivity study at the City of Tulare soil cement lined sludge drying beds in a technical report dated September 2006. The study concludes that, at less than 10^{-6} cm/s, the hydraulic conductivity of the soil cement liner will sufficiently limit percolation to minimize impacts to groundwater. The study does not present leachate water quality data or assess potential groundwater degradation. The City completed construction of 25 acres of soil cement lined sludge drying beds of the same design for Industrial Plant sludge in 2009.
68. Upon inspection in early 2010, both the Domestic Plant and Industrial Plant sludge drying beds appeared to be significantly weathered. At least the top 6 inches of liner material was friable in the sludge drying beds inspected at each Plant. The City's consulting engineers assert that even if the liner had lost several inches of material at the surface, the remaining liner thickness should allow continued operation for years with minimal seepage due to very low hydraulic conductivity. The state of the soil cement lined sludge drying beds has not been fully characterized; the ongoing performance of the soil cement lined drying beds needs to be reevaluated. Provision I.21 of this Order requires the Discharger to submit a Sludge Drying Bed Assessment Report to characterize the discharge to the sludge drying beds and assess the potential groundwater degradation associated with the beds based on estimated mass loading of waste constituents to groundwater.
69. After the sludge drying beds were constructed, the City used them only for a few days in 2006 and a few days in 2010 before initiating daily use of the beds beginning in 2012. In an attempt to maximize gas production and treatment performance, all the biosolids from both Plants were directed to the Fermenter at the Industrial Plant during that period. Sludge taken offsite is sent to a McCarthy Family Farms, Inc. facility in Corcoran. McCarthy Family Farms, Inc. is enrolled under WDRs Order 95-140, *Waste Discharge Requirements General Order for Reuse of Biosolids and Septage on Agricultural, Forest, and Reclamation Sites*.

Site-Specific Conditions

70. The WWTF and Use Area lie within the Tulare Lake Basin. The ground surface in the vicinity of the WWTF slopes gently (10 feet/mile) toward the southwest. Surface water drainage is to Deep Creek, a Valley Floor Water that drains to the Tulare Lake Bed. The Discharger is not required to obtain coverage under a National Pollutant Discharge Elimination System General

Industrial Storm Water Permit for the discharge because all storm water runoff from the WWTF property is diverted into existing storm water retention basins, kept separate from the wastewater stream, and does not discharge to a water of the United States.

71. The City's potable water supply originates from 28 groundwater wells and is of good mineral quality (i.e., its quality is better than necessary to meet established water quality objectives). The City's 2011 Annual Water Quality Report characterizes the source water concentration ranges for select constituents as follows:

<u>Constituent / Parameter</u>	<u>Units</u>	<u>Low</u>	<u>High</u>	<u>Average</u>
EC	umhos/cm	140	470	240
Total Dissolved Solids	mg/L	84	270	147
Sodium	mg/L	22	95	34
Chloride	mg/L	3.6	44	9.7
Nitrate (as N)	mg/L	nondetect	8.6	3.8
Arsenic	ug/L	nondetect	9.4	5.4

72. The discharge area is in an arid climate characterized by hot dry summers and mild winters. The rainy season generally extends from November through March. Occasional rains occur during the spring and fall months, but summer months are dry. According to information published by the California Department of Water Resources, average annual precipitation, pan evaporation, and reference evapotranspiration in the discharge area are about 10 inches, 61 inches, and 51 inches, respectively.
73. According to the United States Department of Agriculture Soil Conservation Service, Soil Survey of Tulare County, California, Western Part (draft), the soils of the Kaweah River alluvial fan near the WWTF consist of fine sandy loams and silty clay loams and are considered moderately permeable. The dominant sediments are silt, fine sands, and clay, according to logs of wells drilled in the area. A clay layer called the 'E' Clay of the Tulare Formation occurs at a depth of about 250 feet below ground surface (bgs). The 'E' Clay, which is reportedly 20 to 50 feet thick in the area, divides underlying groundwater into an upper unconfined and lower confined aquifers.
74. The WWTF is about seven miles southwest of the center of the City of Tulare. Land use in the area between the WWTF and the City is predominantly irrigated agriculture and rural residential. Land use to the north, west, and south of the WWTF primarily consists of irrigated agriculture, rural residential, and at least 10 dairies within a two-mile radius of the WWTF and Use Area. Crops grown within a five mile radius of the WWTF include, but are not limited to, alfalfa, corn, cotton, grapes, almonds, walnuts, sudan grass, dry beans, and pistachios, according to the California Department of Water Resources land use data published in 1999. This data generally agrees with pesticide use permit records for 2011 from the Tulare County Agricultural Commissioner's Office.

75. The Tulare Irrigation District Water Management Plan for 2010 estimates that it delivers water to about 76,000 acres of irrigated crops in the District, with about 71,000 acres of flood/furrow irrigation, about 3,800 acres of low-volume (e.g., drip) irrigation systems, and 825 acres of sprinkler irrigation. Discharge from the WWTF will also influence groundwater underlying areas outside the Tulare Irrigation District.
76. The Tulare Irrigation District supplies excellent quality (EC less than 50 umhos/cm) surface water from the Kaweah and Saint Johns Rivers, and from the Central Valley Project (Friant-Kern Canal). Water deliveries fluctuate widely from year to year according to precipitation. According to information published by the Tulare Irrigation District, for the period of 1949 through 2003, annual crop requirements in the area exceeded available surface water deliveries more than 40 percent of the time. During dry years, farmers supplement their water supply with groundwater wells, or as necessary, rely exclusively on groundwater wells for irrigation water supply. During wet years, the Tulare Irrigation District intentionally uses excess water to recharge groundwater. District data indicate that since 1949, groundwater elevations within the District have fallen about 30 feet. This continuing groundwater decline illustrates: (1) District farmers rely heavily on groundwater for crop irrigation; and (2) District surface water supplies are not sufficient to offset groundwater use.
77. Tulare Canal is an unlined irrigation canal that conveys surface water to farmland within the Tulare Irrigation District. It borders the WWTF's southern boundary, adjacent to the north side of the effluent ponds, traverses Use Areas along Paige Road, and terminates in the Lakeland Canal approximately 12 miles southwest of the WWTF. Attachment F, a part of this Order, depicts the Tulare Canal and other Tulare Irrigation District canals.

Groundwater Considerations

78. Groundwater flow in the unconfined aquifer of the Kaweah subbasin is generally to the southwest, toward the trough of the valley. According to *Lines of Equal Elevation of Water in Wells, Unconfined Aquifer*, published by the California Department of Water Resources for the Kaweah Groundwater Basin, pumping activity in and around the City appears to have induced a groundwater depression in the vicinity that gives groundwater at the City-wide scale a westerly gradient. At the scale of the WWTF, quarterly self-monitoring reports from the City show groundwater flow is generally away from the WWTF effluent ponds with a gradient of about 3 feet per 1000 feet. Groundwater in the unconfined aquifer is first encountered at depths of about 65 to 85 feet bgs in the vicinity of the WWTF and Use Areas. The area does not appear to include significant confining layers above the 'E' Clay.
79. Sources of groundwater recharge in the area include precipitation, land application of wastewater (including numerous dairies), and good quality water sourced from the Kaweah River. As noted above in Findings 75 through 77, the Tulare Irrigation District is responsible for a significant amount of recharge in the area, primarily through recharge basins and unlined canals in widespread use for irrigated agriculture. Elk Bayou, flowing southwest from Outside Creek, is within about a mile of the southernmost Use Areas and has been indicated by water level maps to be a significant source of recharge.

80. The City maintains a groundwater monitoring well network to monitor the groundwater. Attachment F presents approximate well locations. The City installed 13 additional groundwater monitoring wells since the 2002 WDRs, for a total of 29 wells. However, groundwater levels have dropped below the screened interval of 12 wells. Of the remaining 17, only seven of the wells are screened across the groundwater surface and monitor first-encountered groundwater. The other 10 were constructed 30 to 50 feet below the groundwater surface to monitor the vertical extent of groundwater degradation. No functional monitoring wells exist to monitor first-encountered groundwater downgradient from the Domestic or Industrial sludge drying beds, or downgradient from the majority of the recycled water Use Areas. The single upgradient well generally appears to represent upgradient groundwater quality, but is not screened across the groundwater surface and is not sufficient for the large discharge area. The City is limited in its ability to assess upgradient groundwater conditions and groundwater degradation because its groundwater monitoring well network is inadequate.
81. The 2002 WDRs note that groundwater monitoring wells MW-1, MW-2 and MW-12, designed to monitor groundwater upgradient of the discharge, are likely being influenced by seepage from a Tulare Irrigation District canal. The City installed two additional upgradient monitoring wells in 2006: MW-31 and MW-32. MW-32, installed with a screened interval between 65 and 90 feet below ground surface (bgs), was intended to monitor first-encountered groundwater, while MW-31 was screened from 125 to 150 feet bgs to monitor deeper groundwater. Groundwater has reportedly never risen to a level in MW-32 that would allow the City to collect a sample. The groundwater surface elevation during 2012 monitoring was about 15 feet above the well screen in MW-31.
82. The 2009 RWD characterizes background groundwater quality with the data below. This characterization is a summary of analytical results for samples from MW-31 for five quarterly sampling events from 2006 through 2007. The City characterizes MW-31 as a “deep” well, but suggests that since the aquifer is coarse-grained material with no significant confining layers, its character represents first-encountered groundwater.

<u>Constituent / Parameter</u>	<u>Units</u>	<u>Range</u>
Nitrate (as N)	mg/L	14 - 15
Total Dissolved Solids	mg/L	290 - 320
EC	umhos/cm	400 - 479
Sodium	mg/L	47.5 - 55
Manganese	ug/L	< 10

83. The California Department of Water Resources and the United States Geological Survey publish information about groundwater quality. Data that is pertinent to characterizing first-encountered groundwater is limited due to wide variability in the screened interval of wells, sampling dates, and constituents monitored. Samples from two upgradient wells and one downgradient well collected in the 1950s and 1960s (screened above 150 feet bgs) had nitrate as nitrogen less than 5 mg/L, EC of less than 400 umhos/cm, chloride of less than 20 mg/L, and sodium less than 65 mg/L. Naturally occurring groundwater is of good quality. Published

data generally agree with the characterization in the RWD, with the exception of nitrate concentrations, which appear to be higher in the City's upgradient well (Finding 82).

84. The Central Valley Water Board found in Waste Discharge Requirements Order R5-2002-0185 that the Discharger had caused a condition of groundwater pollution with nitrate, iron, and manganese, and caused excessive groundwater degradation with salts. Cease and Desist Order R5-2002-0186 requires the City to determine the vertical and horizontal distribution and extent of waste constituents in the soil profile and groundwater beneath and beyond the WWTF and Use Area to the extent influence by the discharge. It also requires the Discharger to prepare and implement a work plan for groundwater clean-up.
85. Central Valley Water Board staff approved a report from the Discharger characterizing onsite soils. The report summarizes the results of soil sampling, recommends that the City continue required annual soils monitoring, and notes that a groundwater assessment will be submitted under separate cover. The Discharger did not collect soil samples, as required by Monitoring and Reporting Program R5-2002-0186, until 2011. The Discharger has submitted multiple groundwater assessments, but the full vertical and horizontal distribution and extent of WWTF-related waste constituents in groundwater is still not defined.
86. As part of its RWD, the Discharger makes the case that implementing a groundwater clean-up project would not be cost effective. As an alternative, it proposes to cease discharge of high strength waste, which would lead to improved groundwater quality over time by dilution of degraded groundwater with better quality effluent and other sources of good quality recharge.
87. The table below presents average analytical results for the period of July 2011 through April 2012 for each groundwater monitoring well that contained enough water to collect a sample.

	<u>Nitrate</u> <u>as Nitroge</u> <u>n</u> mg/L	<u>EC</u> umhos/cm	<u>Sodium</u> mg/L	<u>Chloride</u> mg/L	<u>Iron</u> ug/L	<u>Manganese</u> ug/L	<u>Organic</u> <u>Carbon</u> mg/L
Upgradient							
MW-2	0.3	89	5.0	2.0	< 5	< 1	0.3
MW-31	19	551	53	34	< 5	1.7	0.4
Downgradient of Effluent Ponds							
MW-18	10	1,290	175	90	< 5	1.7	0.8
MW-19	2.1	928	177	81	32	< 1	1.4
MW-20	3.2	552	45	14	< 5	< 1	0.4
MW-25	0.2	900	130	80	< 5	96	2.1
MW-26	2.8	1,011	145	85	5.9	6.2	1.7
MW-27	0.9	840	101	84	4.3	13	1.0
Downgradient of Use Areas							
MW-11A	32	1,347	150	107	< 5	< 1	0.6
MW-15A	29	967	61	60	< 5	< 1	0.5

	Nitrate as <u>Nitrogen</u> mg/L	<u>EC</u> umhos/cm	<u>Sodium</u> mg/L	<u>Chloride</u> mg/L	<u>Iron</u> ug/L	<u>Manganese</u> ug/L	<u>Organic Carbon</u> mg/L
MW-16	14	549	22	32	4.4	< 1	0.6
MW-24	7	900	88	74	< 5	20	0.7
MW-28	30	1,140	107	102	< 5	10	0.6
MW-30	45	1,440	138	123	< 5	2.6	0.8
MW-34	32	1,225	98	93	< 5	1.6	0.5
MW-35	14	891	128	98	< 5	< 1	0.6
Downgradient or Cross-gradient from WWTF							
MW-23	9.0	979	80	68	6.1	1.3	0.4
Far Down Gradient							
MW-33	22	771	99	42	< 5	1.2	0.5

88. The groundwater surface elevation has dropped below the screened interval of some monitoring wells, limiting data available for groundwater assessment. However, wells near the effluent ponds (MW-18, MW-19, MW-25, MW-26, and MW-27) provide enough data to determine that groundwater influenced by percolating effluent has improved over conditions at the time of adoption of the 2002 WDRs. For example, EC has dropped in MW-19 from as high as 2,500 umhos/cm to less than 1,000 umhos/cm. MW-27 still shows the ongoing trend of degradation, likely because it is a deeper well at the edge of the ponds and does not yet represent groundwater influenced by better quality effluent.
89. Iron and manganese concentrations in MW-18, near the effluent ponds, went up (manganese up to 120 ug/L) during the period from about 2005 to 2007 as total nitrogen decreased to below detection limits; a sign of reducing conditions in the soil. As iron and manganese concentrations have decreased to near undetectable levels in recent years, total nitrogen has increased from less than 1.0 mg/L to around 10 mg/L, but much less than the highest groundwater total nitrogen concentration in MW-18 of 50 mg/L in 2002. Monitoring of shallow well MW-26 for 2011 and 2012 in the center of the pond area shows low concentrations of iron (7 ug/L), manganese (6 ug/L), and nitrate (2.6 mg/L as nitrogen). The four samples collected from deeper well MW-25, since 2008, show manganese concentrations are still above the secondary MCL of 50 ug/L, but the concentrations are dropping. The data show reducing conditions, and associated denitrification, continue to occur to a limited extent beneath the ponds, but the rate of mobilization of iron and manganese has significantly decreased.
90. Three groundwater monitoring wells (MW-15A, MW-16, and MW-30) provide water quality data for first-encountered groundwater underlying the Use Areas. The data generally shows groundwater quality has been degraded by past discharges of WWTF effluent (e.g., nitrate concentrations increased from roughly 20 mg/L to 30 mg/L as nitrogen in MW-15A from 1996 to 2008). Groundwater degradation with nitrate and salinity appears to be associated with the higher strength of effluent prior to recent WWTF improvements. Deeper wells in the Use Areas (MW-11A, MW-28, MW-34, and MW-35) generally show a similar trend of degradation.

91. The table below presents the reported maximum loading rate for a single parcel and average annual Use Area nitrogen loading rates by year. The table shows the effect of WWTF improvements on the nitrogen loading rate in the Use Areas. Future trends in groundwater quality underlying the Use Areas are expected to reflect the improved loading rates. Alfalfa crops in the Use Area have potential to remove up to 480 pounds of nitrogen per acre.

	<u>2009</u>	<u>2010</u>	<u>2011</u>
	lb/acre	lb/acre	lb/acre
Maximum Nitrogen Loading	2,390	437	223
Average Nitrogen Loading	1,200	215	122

92. In general, the discharge is now significantly better quality than existing groundwater quality. Groundwater quality data for wells influenced by effluent percolation from ponds appears to already reflect improvements in WWTF effluent quality. However, based on the analysis of lateral groundwater flow in the RWD, the Discharger estimates it would take about 4 years following changes in effluent quality to measurably influence groundwater quality a half mile from the ponds. The RWD states that it will theoretically take 9 years and 17 years to measure changes in groundwater 1 mile and 2 miles downgradient, respectively. The estimated times do not consider effluent application on the Use Areas, which the RWD says will mask the effects on groundwater of improved discharge quality.

Compliance and Enforcement Considerations

93. In 2002, the Central Valley Water Board adopted WDRs R5-2002-0185 and CDO R5-2002-0186. The Orders included provisions to address multiple ongoing issues with the discharge. The issues are summarized in the list below.
- The WWTF had inadequate capacity to treat the strength and flow of wastewater it was accepting. It was exceeding flow limits and effluent water quality limits for EC, BOD, and TSS.
 - The City's Industrial Pretreatment Program and its implementation were inadequate.
 - The City had insufficient land to dispose of its effluent and was applying effluent to reclamation areas in excess of agronomic rates. Effluent was over-applied to the point that it spilled over onto neighboring properties and into irrigation canals.
 - The City was discharging high strength wastes to unlined treatment ponds and unlined sludge drying beds.
 - The City's groundwater monitoring well network was inadequate.
 - Operators bypassed treatment units, resulting in discharge of partially treated waste.

- g. Storm events resulted in excessive volumes of pollutant-free wastewater entering the collection system.
- h. The City caused groundwater degradation and pollution over a large area underlying its percolation ponds and use areas. Groundwater was degraded with numerous constituents including chloride, sulfate, boron, organic carbon, and increased alkalinity and hardness. Degradation exceeded water quality objectives (caused pollution) for nitrate, EC, TDS, sodium, iron, and manganese.

94. The Discharger has worked to address the issues presented above, generally as required by the 2002 Orders. The list below summarizes the efforts the City has made with respect to each issue listed above in Finding 93.

- a. In the Industrial Plant, the City installed a dissolved air flotation (DAF) unit to remove fats, oils, and grease (FOG) from wastewater that bypasses the Fermenter. The City constructed six sequencing batch reactors (SBRs), six denitrifying filters, two DAF units for thickening solids generated in the SBRs, and three anaerobic digesters.

In 2006, the City constructed a plug-flow anoxic basin in the Domestic Plant to improve nitrogen removal. On 18 November 2004, the City submitted a Salinity Control Plan, as required by the 2002 CDO.

- b. The City made changes to its Industrial Pretreatment Program, implemented by changes to its Sewer Ordinance, at the end of 2003. The Central Valley Water Board adopted a resolution approving the Industrial Pretreatment Program in January 2004.
- c. The City now owns 590 acres of the Use Area and has contracts for reclamation on over 2,000 acres of land owned by other parties. The Use Area lands total more than 1,500 additional acres since adoption of the 2002 WDRs. The City proposed that the WDRs should include a Master Recycling Permit to allow the City to authorize new recycled water users and reclamation areas.
- d. At the Industrial Plant, the City lined the first pond of each aerated pond series with concrete (shotcrete) and compacted the remaining cell bottoms in 2004. When the City began using the SBRs at the end of 2009, it began phasing out use of the aerated ponds. It now uses only the initial concrete-lined ponds (aerated equalization basins) in the aerated pond series. The City also lined its domestic sludge drying beds with soil cement and constructed soil cement lined sludge drying beds of similar design for sludge from its Industrial Plant.
- e. The City installed 13 additional groundwater monitoring wells in 2006. However, one of the key additional wells installed in 2006 (upgradient well MW-32) has never produced enough water to collect a sample, and others are also dry. Expanded Use Areas have no representative monitoring wells and upgradient groundwater data is limited. The monitoring well network is improved, but still inadequate.

- f. Operators use controlled bypass of certain treatment units to optimize carbon to nitrogen ratios and improve performance of the WWTF.
 - g. The City has been pursuing projects to remove direct storm water connections to the sewer system, including a project completed in 2010 that involved construction of a dedicated dairy processing wastewater line in place of a large storm drain that had been used to connect to the sewer.
 - h. In the 2009 RWD, the City proposes to rely on natural attenuation and dilution to address groundwater pollution from its previous discharges.
95. As noted above, improvements to the WWTF have generally resulted in ongoing compliance with the 2002 WDRs and satisfied the purpose of the 2002 CDO. CDO R5-2002-0186 will be rescinded by a separate order. However, another enforcement order (e.g. Cleanup and Abatement Order) may be appropriate to direct ongoing groundwater plume assessment and remediation.

Basin Plan, Beneficial Uses, and Water Quality Objectives

96. The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised January 2004* (the "Basin Plan") designates beneficial uses, establishes narrative and numerical water quality objectives, contains implementation plans and policies for protecting all waters of the Basin, and incorporates, by reference, plans and policies of the State Water Board. In accordance with Water Code section 13263(a), these waste discharge requirements implement the Basin Plan.
97. The Basin Plan specifies that municipal and domestic wastewater dischargers will be required to reclaim and reuse wastewater whenever reclamation is feasible.
98. The WWTF is in Detailed Analysis Unit (DAU) No. 242, within the Kaweah Basin hydrologic unit. The Basin Plan identifies the beneficial uses of groundwater in the DAU as municipal and domestic supply, agricultural supply, industrial service and industrial process supply, and water contact and non-contact water recreation.
99. The WWTF is in the Kaweah Delta Hydrologic Area (No. 558.10) of the South Valley Floor Hydrologic Unit, as depicted on hydrologic maps prepared by State Water Resources Control Board in August 1986.
100. The Basin Plan includes a water quality objective for chemical constituents that, at a minimum, requires waters designated as domestic or municipal supply to meet the MCLs specified in Title 22. The Basin Plan recognizes that the Central Valley Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.
101. The Basin Plan establishes narrative water quality objectives for Chemical Constituents, Taste and Odors, and Toxicity. The Toxicity objective, in summary, requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological

responses in human, plant, animal, or aquatic life associated with designated beneficial uses. Quantifying a narrative water quality objective requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses.

102. The Basin Plan identifies the greatest long-term problem facing the entire Tulare Lake Basin as the increase in salinity in groundwater, which has accelerated due to the intensive use of soil and water resources by irrigated agriculture. The Basin Plan recognizes that degradation is unavoidable until there is a long-term solution to the salt imbalance. Until then, the Basin Plan establishes several salt management requirements, including:
 - a. The incremental increase in salts from use and treatment must be controlled to the extent possible. The maximum EC of the effluent discharged to land shall not exceed the EC of the source water plus 500 umhos/cm. When the source water is from more than one source, the EC shall be a weighted average of all sources.
 - b. Discharges to areas that may recharge good quality groundwater shall not exceed an EC of 1,000 umhos/cm, a chloride content of 175 mg/L, or boron content of 1.0 mg/L.
103. The Basin Plan requires municipal WWTFs that discharge to land to comply with treatment performance standards for BOD₅ and TSS. WWTFs that preclude public access and are greater than 1 mgd must provide removal of 80 percent or reduction to 40 mg/L, whichever is more restrictive, for both BOD₅ and TSS.
104. The Basin Plan requires that all publicly owned treatment works (POTWs) with a design flow greater than 5.0 million gallons per day must comply with 40 CFR 403, the federal pretreatment program requirements. All industrial users that discharge to POTWs must comply with the National Pretreatment Standards (including 40 CFR 405 for dairy processing wastewater).

Antidegradation Analysis

105. State Water Board Resolution 68-16 (*"Policy with Respect to Maintaining High Quality Water of the State"*) (the "Antidegradation Policy") prohibits degradation of high-quality groundwater unless it has been shown that:
 - a. The degradation does not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives;
 - b. The degradation will not unreasonably affect present and anticipated future beneficial uses;
 - c. The Discharger employs Best Practicable Treatment or Control (BPTC) to minimize degradation; and
 - d. The degradation is consistent with the maximum benefit to the people of the state.

106. Whether groundwater is considered “high-quality water” is based on a consideration of the best water quality achieved since the adoption of the Antidegradation Policy by the State Water Resources Control Board in 1968. The Central Valley Water Board analyzes the amount of degradation allowed by these WDRs after considering whether the groundwater is considered a high-quality water for a particular constituent, and after considering the amount of degradation that was previously allowed under prior permits. The Board had previously authorized degradation of groundwater pursuant to WDRs Order R5-2002-0185, which this Order will supersede. The discharges authorized by these WDRs will maintain the current level of water quality protection, and will not allow further degradation, except with respect to sodium. For sodium, this Order imposes a time schedule to ensure that any degradation is ultimately limited so that the discharges are fully protective of the agricultural supply beneficial use, regardless of whether the Basin Plan is amended to alter the way in which the Board ensures protection of this use. With respect to salts, nitrogen, total organic carbon, pathogens, and anthropogenic chemical constituents, these WDRs will limit degradation as described below:

- a. For salinity, the Basin Plan contains effluent limits of 500 umhos/cm plus the EC of source water, and 1,000 umhos/cm maximum for discharges to areas that may recharge to good quality groundwater. As the Tulare Lake Basin is a closed basin, these limits are designed to control the rate of groundwater degradation with respect to salinity. With a source water EC of about 200 umhos/cm, the average discharge EC of about 630 umhos/cm meets the Basin Plan limits of 1,000 umhos/cm or source water plus 500 umhos/cm (700 umhos/cm). Findings 82 and 83 characterize background groundwater as having EC less than 500 umhos/cm. Degradation of groundwater with saline waste constituents may occur as a result of the discharge. However, the discharge is not expected to increase groundwater salinity to the extent that it would adversely affect beneficial uses.
- b. For sodium and chloride, there are currently no numeric standards in the Basin Plan for protecting groundwater designated as supporting the agricultural supply beneficial use. Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) is a collaborative basin planning effort aimed at developing and implementing a comprehensive salinity and nitrate management program. Until the program is developed, the Central Valley Water Board interprets narrative water quality objectives (e.g., the Toxicity Objective) on a case-by-case basis. WDRs Order R5-2002-0185 established groundwater limits at 69 mg/L for sodium and 106 mg/L for chloride. This Order carries over the same limits for groundwater, with a compliance date for the sodium limit of 11 April 2021. Until the 2021 date, the effective groundwater limit for sodium is 110 mg/L.

Concentrations of sodium and chloride in first encountered groundwater unaffected by the discharge are less than 65 mg/L and 20 mg/L, respectively. Because the discharge contains both sodium and chloride in concentrations over 65 mg/L (e.g., over 100 mg/L sodium), the discharge may cause degradation for these constituents. However, the discharge is not expected to cause groundwater chloride concentrations to exceed 106 mg/L. In terms of sodium, the discharge will generally improve groundwater quality in areas that have been affected by previous discharges.

- c. Both treatment Plants at the WWTF include nitrogen removal treatment, with a design effluent of 10 mg/L or less. The average commingled effluent total nitrogen concentration is near 10 mg/L. The crops grown in the Use Areas will take up nitrogen before it percolates to deeper groundwater. Samples from the groundwater underlying effluent ponds consistently shows that the crops uptake a significant amount of the nitrogen (more than 25 percent) in the discharge. This Order limits the discharge to no more than 13 mg/L total nitrogen. Degradation of groundwater with nitrate is not expected to exceed water quality objectives protective of the beneficial uses.
- d. For total organic carbon, WDRs Order R5-2002-0185 notes that the discharge had occasionally caused degradation, which likely caused the reducing conditions in groundwater responsible for mobilizing iron and manganese in concentrations above water quality objectives.

There is currently no established numerical water quality objective for total organic carbon in groundwater. The nitrogen removal processes the City has implemented in recent years consume large amounts of carbon. The average commingled effluent concentration of carbonaceous BOD was 5 mg/L for 2011 to 2012, compared to 33 mg/L for 2008 to 2009. Because the carbonaceous BOD is so low, degradation of groundwater with total organic carbon is not expected to adversely impact the beneficial uses of groundwater.

- e. Regarding pathogens, the WWTF does not include treatment units specifically designed to remove pathogens. Discharge from the WWTF is undisinfected secondary treated effluent. Pathogens will generally be removed by passage through the soil within inches of the surface upon land application and more than 60 feet of soil exists between application and groundwater. Land application is considered a treatment and control measure for pathogens. This Order limits coliform in groundwater to the Basin Plan water quality objective of less than 2.2 MPN/100 mL (essentially non-detect) over any 7-day period. This Order implements rules and regulations regarding use of recycled water consistent with California Code of Regulations, Title 22, and guidance from the California Department of Public Health. Degradation of groundwater with pathogens is not expected.
- f. Municipal wastewater contains anthropogenic chemical constituents related to commercial and industrial waste discharged to the sewer system. The Industrial Pretreatment Program prohibits discharges to the sewer system that could cause WWTF upset or pass-through that would result in violation of WDRs, including acids, metals, toxics, etc. In addition, the activated sludge processes in both treatment Plants of the WWTF rapidly remove volatile and biodegradable wastes. The discharge is not expected to cause significant groundwater degradation with industrial and commercial anthropogenic chemical waste constituents.
- g. Regarding other constituents, taste or odor-producing constituents, toxic substances, and other constituents are limited to concentrations such that they do not cause nuisance or adversely affect beneficial uses of groundwater.

107. The WWTF will provide treatment and control of the discharge that incorporates:

- a. Secondary treatment of wastewater with nitrogen removal;
- b. Sludge hauled off-site;
- c. Recycling of wastewater for crop irrigation;
- d. An operation and maintenance manual;
- e. Implementation of an Industrial Pretreatment Program;
- f. Implementation of an updated Salinity Management Plan;
- g. Implementation of a nutrient management plan;
- h. Certified operators to ensure proper operation and maintenance; and
- i. Source water, discharge, and groundwater monitoring.

The Board finds that the preceding treatment and control measures may be considered BPTC for this discharge.

108. Generally, limited degradation of groundwater by some of the typical waste constituents of concern (e.g., EC and nitrate) discharged from a municipal wastewater utility after effective source control, treatment, and control is consistent with maximum benefit to the people of the state. The technology, energy, and waste management advantages of municipal utility service far exceed any benefits derived from a community otherwise reliant on numerous concentrated individual wastewater systems, and the impacts on water quality will be substantially less. The economic prosperity of valley communities and associated industry is of maximum benefit to the people of the State, and therefore provides sufficient reason to accommodate planned growth and allow for very limited groundwater degradation.
109. This Order requires extensive monitoring to evaluate any groundwater impacts from the discharge and to confirm that the treatment and control measures are sufficiently protective of groundwater.
110. This Order establishes terms and conditions to ensure that the discharge will not unreasonably affect present and anticipated beneficial uses of groundwater or result in groundwater quality less than that prescribed in state and regional policies. The treatment and control measures described above in Finding 107 are equivalent or better than those employed by similarly-situated dischargers, and are a significant improvement over measures employed by the Discharger in previous years, and therefore represent BPTC. The degradation authorized by this Order is also consistent with the maximum benefit of the people of the state, as explained in Finding 108. Therefore, the degradation authorized by this Order is consistent with the Antidegradation Policy.

CEQA

111. The City certified an Environmental Impact Report (EIR) on 7 August 2001 that analyzed the expansion of the Domestic Plant to 6 mgd and the Industrial Plant to 8 mgd. The project scope included additional Use Area lands for recycled water projects within about a 36-square-mile area bounded by Road 44 (California Avenue) to the west, Road 96 (Pratt Street) to the east, Avenue 176 to the south, and Avenue 224 (Bardsley Avenue) to the north.
112. On 20 July 2006, the City certified an Initial Study and Mitigated Negative Declaration for the expansion of the Domestic Plant and Industrial Plant to 8 mgd and 12 mgd, respectively. Mitigation measures were included to minimize air pollution, nesting birds impacts, light pollution, noise pollution, and impacts to cultural resources.
113. The City certified a Final EIR for an update to its General Plan on 18 March 2008 that discussed the fact that the City will be pursuing options for water reclamation and acquiring surface water rather than solely relying on groundwater for its water supply.
114. Following the General Plan Update, the City circulated a draft of another Mitigated Negative Declaration for the expansion of the Domestic Plant to 8 mgd. The Central Valley Water Board commented as a responsible agency that the CEQA analysis needed to include design details and assess resulting water quality impacts. The City responded by sending electronic copies of technical reports to the Central Valley Water Board, including an engineering assessment of required upgrades, the Domestic Plant Design Report (Findings 10 through 12). On 7 October 2010, the City certified the Mitigated Negative Declaration.
115. Consistent with the role of responsible agency, Central Valley Water Board staff reviewed and commented on the draft CEQA documents circulated by the lead agencies. The lead agencies ultimately approved the CEQA documents for the City WWTF's expansions. This Order imposes regulatory requirements on a project that has already undergone multiple environmental reviews pursuant to CEQA, and no additional CEQA analysis is required.

Other Regulatory Considerations

116. Based on the threat and complexity of the discharge, the WWTF is determined to be classified as 1A as defined below:
 - a. Category 1 threat to water quality: "Those discharges of waste that could cause the long-term loss of a designated beneficial use of the receiving water. Examples of long-term loss of a beneficial use include the loss of drinking water supply, the closure of an area used for water contact recreation, or the posting of an area used for spawning or growth of aquatic resources, including shellfish and migratory fish.
 - b. Category A complexity, defined as: "Any discharge of toxic wastes; any small volume discharge containing toxic waste; any facility having numerous discharge points and groundwater monitoring; or any Class 1 waste management unit."

117. Title 27 of the California Code of Regulations (hereafter Title 27) contains regulatory requirements for the treatment, storage, processing, and disposal of solid waste. However, Title 27 exempts certain activities from its provisions. Discharges regulated by this Order are exempt from Title 27 pursuant to provisions that exempt wastewater and reuse. Title 27, section 20090 states in part:

The following activities shall be exempt from the SWRCB-promulgated provisions of this subdivision, so long as the activity meets, and continues to meet, all preconditions listed:

...

(b) Wastewater – Discharges of wastewater to land, including but not limited to evaporation ponds, percolation ponds, or subsurface leachfields if the following conditions are met:

- (1) The applicable regional water quality control board has issued WDRs, recycling requirements, or waived such issuance;
- (2) The discharge is in compliance with applicable water quality control plan; and
- (3) The wastewater does not need to be managed according to Chapter 11, Division 4.5, Title 22 of this code as a hazardous waste.

118. The discharge authorized herein is exempt from the requirements of Title 27 in accordance with Title 27, section 20090(b) because:

- a. The Central Valley Water Board is issuing WDRs.
- b. The discharge is in compliance with the Basin Plan, and;
- c. The treated effluent discharged to the ponds and Use Areas does not need to be managed as hazardous waste.

119. Water Code section 13267(b) states:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of discharging, or who proposes to discharge within its region ... shall furnish, under penalty of perjury, technical or monitoring program reports which the board requires. The burden, including costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

The technical reports required by this Order and the attached Monitoring and Reporting Program R5-2013-0019 are necessary to ensure compliance with these waste discharge requirements. The Discharger owns and operates the facility that discharges the waste subject to this Order.

120. The United States Environmental Protection Agency (EPA) has promulgated biosolids reuse regulations in 40 CFR 503, *Standard for the Use or Disposal of Sewage Sludge*, which establishes management criteria for protection of ground and surface waters, sets application rates for heavy metals, and establishes stabilization and disinfection criteria.
121. The Central Valley Water Board is using the Standards in 40 CFR 503 as guidelines in establishing this Order, but the Central Valley Water Board is not the implementing agency for 40 CFR 503 regulations. The Discharger may have separate and/or additional compliance, reporting, and permitting responsibilities to the EPA.
122. Pursuant to Water Code section 13263(g), discharge is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.
123. The California Department of Water Resources set standards for the construction and destruction of groundwater wells, as described in *California Well Standards Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 94-81* (December 1981). These standards, and any more stringent standards adopted by the State or county pursuant to Water Code Section 13801, apply to all monitoring wells.

Public Notice

124. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the conditions of discharge of this Order.
125. The Discharger and interested agencies and persons have been notified of the intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
126. All comments pertaining to the discharge were heard and considered in a public meeting.

IT IS HEREBY ORDERED that Waste Discharge Requirements Order R5-2002-0185 is rescinded and that, pursuant to Water Code sections 13263, 13267, and 13523.1, the City of Tulare, its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the Water Code and regulations adopted thereunder, shall comply with the following:

A. Prohibitions

1. Discharge of waste to wetlands, surface waters, or surface water drainage courses is prohibited.
2. Bypass or overflow of untreated wastes, except as allowed by Standard Provisions E.2 in *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991, is prohibited.

3. Discharge of waste classified as “hazardous”, as defined in California Code of Regulations, title 23, section 2521(a), is prohibited. Discharge of waste classified as “designated”, as defined in Water Code section 13173, in a manner that causes violation of groundwater limitations, is prohibited.
4. Except as authorized by Recycling Specification F.11, discharges of recycled water, including windblown spray and runoff of recycled water applied to lands for irrigation for which valid recycling requirements are not in force, are prohibited.
5. Discharge of wastewater in a manner other than that described herein or in the Report of Waste Discharge is prohibited.

B. General Discharge Specifications

1. No waste constituent shall be released, discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of Groundwater Limitations of this Order.
2. Wastewater treatment, storage, and disposal shall not cause pollution or a nuisance as defined by Water Code section 13050.
3. The discharge shall remain within the permitted waste treatment/containment structures and land application areas at all times.
4. The Discharger shall operate all systems and equipment to optimize the quality of the discharge.
5. The Discharger shall maintain reliability features consistent with Title 22 sections 60335, 60337, 60343 through 60351, and 60355, including alarms and back-up power systems.
6. All conveyance, treatment, storage, and disposal units shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
7. Public contact with effluent (treatment works, percolation ponds) shall be precluded through such means as fences, signs, or acceptable alternatives.
8. Objectionable odors shall not be perceivable beyond the limits of the WWTF property at an intensity that creates or threatens to create nuisance conditions.
9. The treatment, storage, and disposal ponds or structures shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary inflow and infiltration during the winter while ensuring continuous compliance with all requirements of this Order. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.

10. On or about **1 October** of each year, available capacity shall at least equal the volume necessary to comply with General Discharge Specification B.9.
11. All ponds shall be managed to prevent breeding of mosquitoes. In particular,
 - a. An erosion control plan should assure that coves and irregularities are not created around the perimeter of the water surface.
 - b. Weeds shall be minimized through control of water depth, harvesting, and herbicides.
 - c. Dead algae, vegetation and other debris shall not accumulate on the water surface.
 - d. The Discharger shall consult and coordinate with the local Mosquito Abatement District to minimize the potential for mosquito breeding as needed to supplement the above measures.
12. The Discharger shall monitor sludge accumulation in the wastewater treatment/storage units at least every five years beginning in 1 July 2013, and shall periodically remove sludge as necessary to maintain adequate treatment and storage capacity.

C. Domestic Discharge Specifications

1. The monthly average Domestic Plant effluent flow shall not exceed the following:
 - a. 5.0 mgd, until the requirements of Provision I.15 are satisfied;
 - b. 6.0 mgd after the requirements of Provision I.15 are satisfied, until the requirements of Provision I.16 are satisfied; and
 - c. 8.0 mgd after Provision I.16 is satisfied.
2. Domestic Plant effluent shall not exceed the following limitations:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
BOD ₅ ¹	mg/L	40	80
TSS ²	mg/L	40	80

¹ Five-day biochemical oxygen demand

² Total suspended solids

3. The arithmetic mean of BOD₅ and TSS in effluent samples collected over a monthly period shall not exceed 20 percent of the arithmetic mean of the values for influent samples collected at approximately the same times during the same period (80 percent removal).

D. Industrial Discharge Specifications

1. The monthly average Industrial Plant effluent flow shall not exceed 12 mgd.
2. Industrial Plant effluent shall not exceed the following limitations:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
BOD ₅ ¹	mg/L	40	80
TSS ²	mg/L	40	80

- ³ Five-day biochemical oxygen demand
⁴ Total suspended solids

3. The arithmetic mean of BOD₅ and TSS in effluent samples collected over a monthly period shall not exceed 20 percent of the arithmetic mean of the values for influent samples collected at approximately the same times during the same period (80 percent removal).

E. Commingled Discharge Specifications

1. The monthly average commingled effluent flow shall not exceed the following:
 - a. 16.0 mgd until the requirements of Provision I.17 are satisfied;
 - b. 18 mgd after the requirements of Provision I.17 are satisfied, until the requirements of Provision I.18 are satisfied; and
 - c. 20 mgd after the requirements of Provision I.18 are satisfied.
2. Effluent shall not exceed the following limitations:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
BOD ₅ ¹	mg/L	40	80
TSS ²	mg/L	40	80
Total Nitrogen	mg/L	13	
Chloride	mg/L		175
Boron	mg/L		1.0

- ⁵ Five-day biochemical oxygen demand
⁶ Total suspended solids

3. The arithmetic mean of BOD₅ and TSS in effluent samples collected over a monthly period shall not exceed 20 percent of the arithmetic mean of the values for influent samples collected at approximately the same times during the same period (80 percent removal).

4. The 12-month rolling average EC of the discharge shall not exceed the 12-month rolling average EC of the source water plus 500 umhos/cm or a maximum of 1,000 umhos/cm, whichever is more stringent. Compliance with this effluent limitation shall be determined monthly. When source water is from more than one source, the EC shall be a weighted average of all sources.

F. Recycling Specifications

1. Application of recycled water shall be confined to the approved WWTF effluent storage pond sites and Use Areas as defined in this Order, or new recycled water projects under the conditions of Provisions I.22 and I.23.
2. Notwithstanding the following requirements, the production, distribution, and use of recycled water shall conform to an Engineering Report prepared pursuant to Title 22, section 60323 and approved by the California Department of Public Health.
3. The use of recycled water shall not cause pollution or nuisance, as defined by Water Code section 13050.
4. No person other than the City shall deliver recycled water to a Use Area.
5. The recycled water shall be at least undisinfected secondary recycled water as defined by Title 22, section 60301.
6. Recycled water shall be used in compliance with Title 22, section 60304. Regarding particular agricultural uses, recycled water shall be applied in compliance with the following:
 - a. Undisinfected recycled water shall not be discharged to orchard or vineyard crops;
 - b. No recycled water used for irrigation, or soil that has been irrigated with recycled water, shall come into contact with the edible portion of food crops that may be eaten raw by humans;
 - c. Non food-bearing trees, seed crops not eaten by humans, food crops that must undergo commercial pathogen-destroying processing before being consumed by humans, and ornamental nursery stock and sod farms (provided no irrigation with recycled water occurs for a period of 14 days prior to harvesting, retail sale, or allowing access by the general public) may be irrigated with recycled water; and
 - d. Grazing of milking animals within the Use Areas is prohibited.
7. Irrigation of the Use Areas shall occur only when appropriately trained personnel are on duty.

8. Irrigation with recycled water shall not be performed within 24 hours of a forecasted storm, during or within 24 hours after any precipitation event, nor when the ground is saturated.
9. The Use Area parcels shall be graded to prevent ponding along public roads or other public areas and prevent runoff onto adjacent properties.
10. The Use Areas shall be managed to prevent breeding of mosquitoes. In particular:
 - a. There shall be no standing water 48 hours after irrigation ceases;
 - b. Tailwater ditches shall be maintained essentially free of emergent, marginal, and floating vegetation; and
 - c. Low-pressure and unpressurized pipelines and ditches accessible to mosquitoes shall not be used to store recycled water.
11. Tailwater runoff and spray of recycled water shall not be discharged outside of the use areas except in minor, incidental amounts that cannot reasonably be eliminated by implementation and good maintenance of best management practices.
12. Recycled water spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff.
13. Use Areas and recycled water impoundments shall be designed, maintained, and operated to comply with the following setback requirements:

<u>Setback Definition</u>	<u>Minimum Irrigation Setback (feet)</u>
Edge of Use Area to property boundary	25
Edge of Use Area to public road right of way	30
Edge of Use Area to manmade or natural surface water drainage course ¹	50
Edge of Use Area to domestic water supply well	150
Toe of recycled water impoundment berm to domestic water supply well	150

¹ Excluding ditches used exclusively for tailwater return from the land application area and land application areas separated by levees or other permanent physical barriers from surface waters or drainage courses.

14. There shall be at least a ten-foot horizontal and a one-foot vertical separation between all pipelines transporting recycled water and those transporting domestic supply, and the domestic supply pipeline shall be located above the recycled water pipeline.

15. A public water supply or auxiliary water supply shall not be used as backup or supplemental source of water for a recycled water system unless the connection between the two systems is protected by a backflow preventer (e.g., an air gap separation) which complies with the requirements of California Code of Regulations, title 17, sections 7601 through 7604.
16. Any backflow prevention device installed to protect a public water system shall be inspected and maintained in accordance with Title 17, section 7605. The recycled water system shall be tested for possible cross connections at least once every four years. The inspections and the testing shall be performed by a cross connection control specialist certified by the California-Nevada section of the American Water Works Association or an organization with equivalent certification requirements.
17. All recycling equipment, pumps, piping, valves, and outlets shall be marked to differentiate them from potable water facilities. All recycled water piping (above and below ground) and appurtenances in new installations and in retrofit installations shall be colored purple or distinctively wrapped with purple tape in accordance with California Health and Safety Code section 116815.
18. Recycled water controllers, valves, and similar appurtenances shall be affixed with recycled water warning signs, and shall be equipped with removable handles or locking mechanisms to prevent public access or tampering.
19. Quick couplers, if used, shall be different than those used in potable water systems.
20. Hose bibs and unlocked valves, if used, shall not be used in areas accessible to the public.
21. Public contact with recycled water shall be controlled using fences, signs, and/or other appropriate means. Signs of a size no less than four inches high by eight inches wide with proper wording (shown below) shall be placed at all areas of public access and around the perimeter of all areas used for effluent disposal or conveyance to alert the public of the use of recycled water. The size and content of these signs shall be as described in section 60310(g) of Title 22. All signs shall display an international symbol similar to that shown in Attachment G, which is attached hereto and a part of this Order, and present the following wording:

“RECYCLED WATER – DO NOT DRINK”
“AGUA DE DESPERDICIO RECLAMADA – NO TOME”

22. Workers shall be educated regarding proper hygienic procedures to ensure personal and public safety.
23. The annual nutrient loading of the Use Area, including the nutritive value of organic and chemical fertilizers and recycled water, shall not exceed crop demand.

24. Hydraulic and nutrient loading of recycled water and supplemental irrigation water shall be at reasonable agronomic rates designed to :
 - a. Maximize crop nutrient uptake;
 - b. Maximize breakdown of organic waste constituents in the root zone;
 - c. Minimize the percolation of waste constituents; and
 - d. Minimize erosion within the Use Areas.
25. Use Areas shall be inspected as frequently as necessary to ensure continuous compliance with the requirements of this Order.
26. A copy of the User Agreement and the Discharger's rules and regulations governing the distribution and use of recycled water shall be maintained at the User's facilities and be available at all times for inspection by Central Valley Water Board staff, the Discharger, and Department of Public Health staff.

G. Solids Disposal Specifications

1. Sludge in this document means the solid, semisolid, and liquid residues removed during primary, secondary, or advance wastewater treatment processes. Solid waste refers to grit and screening material generated during preliminary treatment. Residual sludge means sludge that will not be subject to further treatment at the WWTF. Biosolids refers to sludge that has been treated and tested and shown to be capable of being beneficially used as soil amendment for agriculture, silviculture, horticulture, and land reclamation activities pursuant to federal and state regulations.
2. Sludge and solid waste shall be removed from screens, sumps, aeration basins, ponds, clarifiers, etc., as needed to ensure optimal plant operation.
3. Any handling and storage of residual sludge, solid waste, and biosolids on property of the WWTF shall be temporary (i.e., no longer than two years) and controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate the groundwater limitations of this Order.
4. Residual sludge, solid waste, and biosolids shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27. Removal for further treatment, disposal, or reuse at sites (i.e., landfill, composting sites, and soil amendment sites) operated in accordance with valid waste discharge requirements will satisfy this specification.
5. Use of biosolids as a soil amendment shall comply with valid waste discharge requirements issued by a regional water board or the State Water Board or a local (e.g., county) program authorized by a regional water board. In most cases, this

means the General Biosolids Order (State Water Board Water Quality Order 2004-12-DWQ, “*General Waste Discharge Requirements for the Discharge of Biosolids to Land for Use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities*”). For a biosolids use project to be authorized by the General Biosolids Order, the Discharger must file a complete Notice of Applicability for each project.

6. Use and disposal of biosolids shall comply with the self-implementing Federal biosolids regulations (40 C.F.R. § 503.), which are subject to enforcement by the USEPA, not the Central Valley Water Board. If during the life of this Order, the State accepts primacy for implementation of Federal biosolids regulations, the Board may also initiate enforcement where appropriate.
7. Any proposed change in sludge use or disposal practice shall be reported in writing to the Executive Officer at least 90 days in advance of the change.

H. Groundwater Limitations

1. Release of waste constituents from any treatment, recycling or storage component associated with the discharge shall not cause or contribute to groundwater:
 - a. Containing constituent concentrations in excess of the concentrations specified below or natural background quality, whichever is greater:

<u>Parameter</u>	<u>Units</u>	<u>Limitation</u>
EC	umhos/cm	900
Total Dissolved Solids	mg/L	500
Nitrate (as Nitrogen)	mg/L	10
Boron	mg/L	0.7
Chloride	mg/L	106
Sodium	mg/L	69 ¹
Total Coliform Organisms	MPN/100 mL	2.2 ²

¹ Compliance shall be determined based on the conditions described in Provision I.26.

² Equal to or greater than 2.2 MPN/100mL over any 7-day period.

- b. For constituents identified in Title 22, the MCLs quantified therein.
 - c. Containing taste or odor-producing constituents, toxic substances, or any other constituents in concentrations that cause nuisance or adversely affect beneficial uses.

I. Provisions

1. The Discharger shall comply with the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements*, dated 1 March 1991 (Standard Provisions), which are part of this Order.
2. The Discharger shall comply with MRP R5-2013-0019, which is part of this Order, and any revisions thereto as adopted by the Central Valley Water Board or approved by the Executive Officer.
3. The Discharger shall report promptly to the Central Valley Water Board any material change or proposed change in the character, location, or volume of the discharge.
4. The Discharger shall keep at the WWTF a copy of this Order, including its MRP, Information Sheet, attachments, and Standard Provisions, for reference by operating personnel. Key operating personnel shall be familiar with its contents.
5. The Discharger shall not allow pollutant-free wastewater to be discharged into the WWTF collection, treatment, and disposal systems in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means storm water (i.e., inflow), groundwater (i.e., infiltration), cooling waters, and condensates that are essentially free of pollutants.
6. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Accordingly, the Discharger shall submit to the Central Valley Water Board on or before each report due date the specified document or, if an action is specified, a written report detailing evidence of compliance with the date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Central Valley Water Board by letter when it returns to compliance with the time schedule. Violations may result in enforcement action, including Central Valley Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
7. The Discharger must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This Provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger only when the operation is necessary to achieve compliance with the conditions of this Order.
8. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days

of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act of 1986."

9. As a means of discerning compliance with General Discharge Specification B.8, the dissolved oxygen (DO) content in the upper one foot of any wastewater pond (other than those that require an anoxic or anaerobic environment for the design treatment) shall not be less than 1.0 mg/L for three consecutive weekly sampling events. If the DO in any single pond is below 1.0 mg/L for three consecutive sampling events, the discharger shall report the findings to the Central Valley Water Board in writing within 10 days and shall include a specific plan to resolve the low DO results within 30 days.
10. The Discharger shall maintain and operate surface impoundments in a manner that protects the integrity of containment levees and prevents overtopping or overflows. Unless a California registered civil engineer certifies (based on design, construction, and conditions of operation and maintenance) that less freeboard is adequate, the operating freeboard shall never be less than two feet (measured vertically). As a means of management and to discern compliance with this Provision, the Discharger shall install and maintain a permanent marker with calibration that indicates the water level at the design capacity and enables determination of available operational freeboard.
11. The Discharger shall submit the technical reports and work plans required by this Order for Central Valley Water Board staff consideration and incorporate comments they may have in a timely manner, as appropriate. The Discharger shall proceed with all work required by the following provisions by the due dates specified.
12. All technical reports and work plans required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. As required by these laws, completed technical reports and work plans must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work. All reports required herein are required pursuant to Water Code section 13267.
13. The Discharger shall continue to maintain coverage under, and comply with Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order 2006-0003-DWQ and any revisions thereto as adopted by the State Water Board.
14. **By 30 September 2013**, the Discharger shall submit for Executive Officer approval a technical report, prepared in accordance with Provision I.12, describing a proposed time schedule for upgrade of the Domestic Plant to at least 5.0 mgd. The technical report must detail how the Discharger intends to address the deficiencies described in the Domestic Plant Design Report and in Findings 9 through 13, including design parameters, funding sources, and an implementation schedule. The report must assess influent flow and provide an explanation for the fluctuations noted in Finding 16.

15. **Prior to increasing flow at the Domestic Plant to more than 5.0 mgd and no later than 30 June 2014**, the Discharger shall obtain written approval from the Executive Officer documenting that it has technically justified that it can treat and dispose of 6.0 mgd from the Domestic Plant and all authorized flow from the Industrial Plant in compliance with all applicable specifications, limitations, and provisions of this Order. The Discharger shall submit a technical report prepared in accordance with Provision I.12 at least 60 days prior to the expected approval.
16. **Prior to increasing flow at the Domestic Plant to more than 6.0 mgd**, the Discharger shall obtain written approval from the Executive Officer documenting that it has technically justified that it can treat and dispose of 8.0 mgd from the Domestic Plant and all authorized flow from the Industrial Plant in compliance with all applicable specifications, limitations, and provisions of this Order. The Discharger shall submit a technical report prepared in accordance with Provision I.12 at least 60 days prior to the expected approval.
17. **Prior to increasing commingled effluent flow at the WWTF to more than 16.0 mgd**, the Discharger shall obtain written approval from the Executive Officer documenting that it has technically justified that it can treat and dispose of 18 mgd in compliance with all applicable specifications, limitations, and provisions of this Order. The Discharger shall submit a technical report prepared in accordance with Provision I.12 at least 60 days prior to the expected approval. This Provision does not supersede or otherwise alter the limitations of Domestic Discharge Specification C.1.
18. **Prior to increasing commingled effluent flow at the WWTF to more than 18 mgd**, the Discharger shall obtain written approval from the Executive Officer documenting that it has technically justified that it can dispose of 20 mgd in compliance with all applicable specifications, limitations, and provisions of this Order. The Discharger shall submit a technical report prepared in accordance with Provision I.12 at least 60 days prior to the expected approval. This Provision does not supersede or otherwise alter the limitations of Domestic Discharge Specification C.1.
19. **By 30 September 2013**, the Discharger shall submit a Salinity Management Plan, with updated salinity source reduction goals and an implementation schedule for Executive Officer approval. The Salinity Management Plan shall assess the effectiveness of the existing Salinity Control Plan. The Salinity Management Plan must include an estimate of load reductions that may be attained through the methods identified, and provide a description of the tasks, cost, and time required to investigate and implement various elements in the plan. The Discharger shall implement the Salinity Management Plan in accordance with the approved schedule.
20. The Discharger shall establish and maintain a representative groundwater monitoring well network according to the following schedule:
 - a. **By 30 September 2013**, the Discharger shall submit a Groundwater Monitoring Well Work Plan. The work plan shall propose appropriate locations for new

background wells, and for new wells to monitor groundwater degradation downgradient of sludge drying beds and of Use Areas that are not represented by the existing well network. The work plan shall describe the criteria that will be used to determine whether a monitoring well can be considered to provide reliable groundwater quality data and describe how each well in the network compares with the criteria. The work plan shall include rationale for the construction and location of each monitoring well, and make appropriate conclusions and recommendations. The work proposed shall be consistent with applicable well standards described in Finding 123, and shall comply with *Standard Requirements for Monitoring Well Installation Work Plans and Monitoring Well Installation Reports*, a part of this Order.

- b. **By 29 October 2014**, the Discharger shall submit a Groundwater Monitoring Well Installation Report. The installation report shall describe well construction details for each new well, including the location, ground surface elevation, reference point elevation, water surface elevation, geologic logs, and other details, including filter pack and screened interval, surface completion, etc. The report shall include narrative description of well locations with respect to landmarks, as well as three-dimensional coordinates with respect to a known datum (prepared by a licensed land surveyor or civil engineer).
21. **By 29 October 2013**, the Discharger shall submit a Sludge Drying Bed Assessment Report. The assessment report shall characterize the discharge to the sludge drying beds and assess the potential groundwater degradation associated with the beds based on estimated mass loading of waste constituents to groundwater. The report shall characterize the biosolids and liners of the sludge drying beds serving the Domestic Plant and Industrial Plant independently, as appropriate. The report shall be based on analyses calibrated with site-specific, empirical data, including:
- a. An assessment of liner integrity that considers the results of empirical testing and field observations of representative liner areas. The liner integrity assessment shall include hydraulic conductivity, remaining liner thickness, moisture content, density, and extent of weathering (i.e., desiccation cracking depth and width).
 - b. A biosolids characterization that considers flow (influent wet biosolids, supernatant return, percolation, and evaporation) and characterization of waste constituent concentrations, including volatile suspended solids, total suspended solids, biochemical oxygen demand, chemical oxygen demand, total organic carbon, forms of nitrogen, total dissolved solids, Metals and General Minerals (as described in the Monitoring and Reporting Program).
 - c. Water quality data (total organic carbon, forms of nitrogen, total dissolved solids, Metals and General Minerals as described in the Monitoring and Reporting Program) for samples collected from nearby groundwater monitoring wells (if available) and from the witness sump of the leachate collection and recovery system installed in the Domestic Plant sludge drying beds.

22. **By 30 August 2013**, and prior to conveying recycled water to any User not identified in Finding 44 of this Order, the City shall complete the following:
- a. Establish and have the authority to enforce rules and/or regulations (a recycled water program) for Users governing the design and construction of recycled water use facilities and the use of recycled water in accordance with the water recycling criteria established in Title 22, California Code of Regulations and this Order;
 - b. Submit a copy of the rules and/or regulations and the adopted recycled water ordinance authorizing the rules and/or regulations to the Central Valley Water Board for Executive Officer approval;
 - c. Develop and submit the administrative procedures and User agreements requiring compliance with the Discharger's rules and/or regulations to the Central Valley Water Board for Executive Officer approval;
 - d. Provide the California Department of Public Health with copies of the items required by b. and c.

Upon Executive Officer approval of the Discharger's rules and/or regulations, recycled water ordinance, administrative procedures, and User agreement, the Discharger may authorize specific reclamation projects on a case-by-case basis in accordance with the approved water recycling program.

23. **At least 30 days prior** to conveying recycled water to any Use Area not described in this Order, the Discharger shall submit a User Report to the Central Valley Water Board and the California Department of Public Health. The User Report shall include the following:
- a. The site location including a map showing the specific boundaries of the use site and the County Assessor's Parcel Number(s) (if appropriate, if Parcel Number(s) are not appropriate to accurately describe the site location, the Discharger shall provide the Central Valley Water Board with enough information for the Central Valley Water Board to accurately determine the location of the proposed reclamation activities);
 - b. The name of the Use Area property owner and contact information;
 - c. The name of the User and contact information;
 - d. The specific use to be made of the recycled water, the Use Area acreage, the type of vegetation/crops to which the recycled water will be applied, and the anticipated volume of recycled water to be used;

- e. Identification of the on-site supervisor who is responsible for operation of the recycled water system;
- f. Description of the recycled water management facilities and operations plan;
- g. Plans and specifications that include the following:
 - i. Pipe locations of the recycled, potable, and auxiliary non-potable water systems;
 - ii. Type and location of the outlets and plumbing fixtures that will be accessible to the public;
 - iii. The methods and devices to be used to prevent backflow of recycled water into the public water system; and
 - iv. Plan notes relating to recycled water specific installation and use requirements.
- h. Certification that the new Use Area conforms to the Discharger's rules and regulations;
- i. A copy of the signed User agreement; and
- j. The results of the cross-connection control test performed in accordance with the American Water Works Association and California Department of Public Health guidelines (Cal. Code Regs., tit. 17, § 7605). The results shall include a certification that the California Department of Public Health was notified of the initial cross-connection control test and was provided an opportunity to be present.

A copy of the User agreement and the Discharger's rules and regulations governing the distribution and use of recycled water shall be maintained at the User's facilities and be available at all times for inspection by Regional Water Board staff, the Discharger, and DPH staff.

If, in the opinion of the Executive Officer, reclamation at a proposed new use site cannot be adequately regulated under the Master Recycling Permit, a Report of Waste Discharge may be requested and individual Water Recycling Requirements may be adopted.

24. **Prior to commencing irrigation with recycled water** on any Use Area not described in this Order, the City shall submit documentation that the California Department of Public Health has approved a Title 22 engineering report for the project and documentation of compliance with CEQA.

25. **By 29 October 2013**, the Discharger shall submit a Biosolids Removal Plan detailing the City's proposed plan for decommissioning the approximately 90-acre area previously operated as aeration ponds for the Industrial Plant. The Biosolids Removal Plan shall include residual solids removal, a demonstration of consistency with the Antidegradation Policy (including a characterization of liner integrity), and a time schedule for the work to be completed.
26. **Until 11 April 2021**, release of waste constituents from any treatment, recycling or storage component associated with the discharge shall not cause or contribute to groundwater sodium concentrations in excess of 110 mg/L or natural background quality, whichever is greater. On or before 11 April 2021, the Discharger shall either:
- Modify wastewater treatment operations or effect control measures to ensure compliance with the groundwater limit for sodium listed in Groundwater Limitation H.1(a); or
 - Comply with a revised groundwater limit for sodium consistent with the recommendations of Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) and adopted by the Central Valley Water Board.

The City shall not rely exclusively upon an expectation that the Board will amend the Basin Plan's water quality objectives relating to sodium by 2021, and shall take all reasonable and appropriate measures to ensure that the discharge will meet whatever water quality objectives relating to sodium are applicable to the discharge by 2021.

27. In the event of any change in control or ownership of land or waste treatment and storage facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.
28. To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the address and telephone number of the persons responsible for contact with the Central Valley Water Board and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Central Valley Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.
29. If the Central Valley Water Board determines that waste constituents in the discharge have reasonable potential to cause or contribute to an exceedance of an objective for groundwater, this Order may be reopened for consideration of addition or revision of appropriate numerical effluent or groundwater limitations for potential constituents.

30. The Central Valley Water Board will review this Order periodically and will revise requirements when necessary.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filling petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality/

or will be provided upon request.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 11 April 2013.

Original signed by:

PAMELA C. CREEDON, Executive Officer

Order Attachments:

- A Vicinity Map
 - B Site Plan
 - C Process Flow Diagram, Domestic Plant
 - D Process Flow Diagram, Industrial Plant
 - E Recycled Water Statutes and Regulations
 - F Recycled Water Use Area Map
 - G Recycled Water Signage
- Monitoring and Reporting Program R5-2013-0019
Information Sheet
Standard Provisions (1 March 1991)
Standard Requirements for Monitoring Well Installation Work Plans
and Monitoring Well Installation Reports

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2013-0019
FOR
CITY OF TULARE
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

This monitoring and Reporting Program (MRP) is required pursuant to Water Code section 13267.

The Discharger shall not implement any changes to this MRP unless and until the Central Valley Water Board adopts or the Executive Officer issues a revised MRP. Changes to sample location shall be established with concurrence of Central Valley Water Board staff, and a description of the revised stations shall be submitted for approval by the Executive Officer. All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. All analyses shall be performed in accordance with ***Standard Provisions and Reporting Requirements for Waste Discharge Requirements***, dated 1 March 1991 (Standard Provisions).

Field test instruments (such as pH) may be used provided that the operator is trained in the proper use of the instrument and each instrument is serviced and/or calibrated at the recommended frequency by the manufacturer and in accordance with manufacturer instructions.

Analytical procedures shall comply with the methods and holding times specified in the following: *Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater* (EPA); *Test Methods for Evaluating Solid Waste* (EPA); *Methods for Chemical Analysis of Water and Wastes* (EPA); *Methods for Determination of Inorganic Substances in Environmental Samples* (EPA); *Standard Methods for the Examination of Water and Wastewater* (APHA/AWWA/WEF); and *Soil, Plant and Water Reference Methods for the Western Region* (WREP 125). Approved editions shall be those that are approved for use by the United States Environmental Protection Agency or the California Department of Public Health's Environmental Laboratory Accreditation Program. The Discharger may propose alternative methods for approval by the Executive Officer.

If monitoring consistently shows no significant variation in magnitude of a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request the MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for the requested reduction in monitoring frequency.

A glossary of terms used within this MRP is included on page and a list of the constituents required for the monitoring of Priority Pollutants is included in Table 1, which is on page 14.

INDUSTRIAL PLANT INFLUENT MONITORING

Samples shall be collected of the waste stream immediately before it enters the headworks of the Industrial Plant. The samples must be representative of the volume and character of influent wastewater. Time of collection of a grab sample shall be recorded. Industrial Plant influent monitoring shall include the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Continuous	Flow	mgd	Meter
Continuous ¹	pH	pH Units	Grab
Daily	EC	umhos/cm	24-Hour Composite
Twice weekly	TSS	mg/L	24-Hour Composite
Twice weekly	BOD	mg/L	24-Hour Composite
Twice weekly	COD	mg/L	24-Hour Composite
Weekly	Oil and Grease	mg/L	24-Hour Composite
Weekly	Alkalinity	mg/L	24-Hour Composite
Weekly	Nitrate	mg/L (as N)	24-Hour Composite
Weekly	TKN	mg/L (as N)	24-Hour Composite
Weekly	Ammonia	mg/L (as N)	Grab
Weekly	Total Nitrogen	mg/L	Calculated

¹ The Discharger shall also collect a grab sample on a daily basis.

INDUSTRIAL PLANT FERMENTER EFFLUENT MONITORING

Samples shall be collected of the waste stream directly following the Fermenter but before discharge to the SBRs and before mixing with DAF effluent. Fermenter effluent samples must be representative of the wastewater following Fermenter treatment. Time of collection of a grab sample shall be recorded. Industrial Fermenter effluent monitoring shall include the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Continuous	Flow	mgd	Meter
Daily	pH	pH Units	Grab
Daily	EC	umhos/cm	24-Hour Composite
Daily	Ammonia Feed Rate ¹	lbs/day (as N)	Meter
Weekly ²	Alkalinity	mg/L	24-Hour Composite
Weekly ²	Nitrate	mg/L (as N)	24-Hour Composite
Weekly ²	TKN	mg/L (as N)	24-Hour Composite
Weekly ²	Ammonia	mg/L (as N)	Grab
Weekly ²	Total Nitrogen	mg/L	Calculated

¹ The average rate of ammonia addition to the Fermenter.

² With Executive Officer approval, the monitoring frequency may be reduced following one year of monitoring.

INDUSTRIAL PLANT EFFLUENT MONITORING

Samples shall be collected of the industrial wastewater stream following the final treatment unit, immediately before discharge to the commingled effluent mixing box. The samples must be representative of the volume and character of Industrial Plant effluent. Time of collection of a grab sample shall be recorded. Industrial Plant effluent monitoring shall include the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Daily	pH	pH Units	Grab
Daily	EC	umhos/cm	24-Hour Composite
Twice weekly	TSS	mg/L	24-Hour Composite
Twice weekly	BOD	mg/L	24-Hour Composite
Twice weekly	COD	mg/L	24-Hour Composite
Weekly	Oil and Grease	mg/L	24-Hour Composite
Weekly	Alkalinity	mg/L	24-Hour Composite
Weekly	Nitrate	mg/L (as N)	24-Hour Composite
Weekly	TKN	mg/L (as N)	24-Hour Composite
Weekly	Ammonia	mg/L (as N)	Grab
Weekly	Total Nitrogen	mg/L	Calculated
Weekly	Sodium	mg/L	24-Hour Composite
Annually	General Minerals	mg/L	24-Hour Composite

DOMESTIC PLANT INFLUENT MONITORING

Samples shall be collected of the waste stream immediately before it enters the headworks of the Domestic Plant. The samples must be representative of the volume and nature of the influent wastewater. Time of collection of a grab sample shall be recorded. Domestic Plant influent monitoring shall include the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Continuous	Flow	mgd	Meter
Daily	pH	pH Units	Grab
Daily	EC	umhos/cm	24-Hour Composite
Twice weekly	TSS	mg/L	24-Hour Composite
Twice weekly	BOD	mg/L	24-Hour Composite
Twice weekly	COD	mg/L	24-Hour Composite
Weekly	Oil and Grease	mg/L	24-Hour Composite
Weekly	Alkalinity	mg/L	24-Hour Composite
Weekly	Nitrate	mg/L (as N)	24-Hour Composite
Weekly	TKN	mg/L (as N)	24-Hour Composite

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Weekly	Ammonia	mg/L (as N)	Grab
Weekly	Total Nitrogen	mg/L	Calculated

DOMESTIC PLANT EFFLUENT MONITORING

Samples shall be collected of the domestic wastewater stream following the final treatment unit, immediately before discharge to the commingled effluent mixing box. The samples must be representative of the volume and character of Domestic Plant effluent. Time of collection of a grab sample shall be recorded. Domestic Plant effluent monitoring shall include the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Daily	pH	pH Units	Grab
Daily	EC	umhos/cm	24-Hour Composite
Twice weekly	TSS	mg/L	24-Hour Composite
Twice weekly	BOD	mg/L	24-Hour Composite
Twice weekly	COD	mg/L	24-Hour Composite
Twice weekly	Oil and Grease	mg/L	24-Hour Composite
Weekly	Alkalinity	mg/L	24-Hour Composite
Weekly	Nitrate	mg/L (as N)	24-Hour Composite
Weekly	TKN	mg/L (as N)	24-Hour Composite
Weekly	Ammonia	mg/L (as N)	Grab
Weekly	Total Nitrogen	mg/L	Calculated
Annually	General Minerals	mg/L	24-Hour Composite

COMMINGLED EFFLUENT MONITORING

Effluent samples shall be collected at a point in the system following the last treatment unit, after the commingled effluent mixing box and before discharge to the effluent ponds. Time of collection of a grab sample shall be recorded. Commingled effluent monitoring shall include the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Continuous	Flow	mgd	Calculated
Daily	pH	pH Units	Grab
Daily	EC	umhos/cm	24-Hour Composite
Twice weekly	TSS	mg/L	24-Hour Composite
Twice weekly	BOD	mg/L	24-Hour Composite
Twice weekly	COD	mg/L	24-Hour Composite
Twice weekly	Oil and Grease	mg/L	24-Hour Composite
Weekly	Alkalinity	mg/L	24-Hour Composite

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Weekly	Nitrate	mg/L (as N)	24-Hour Composite
Weekly	TKN	mg/L (as N)	24-Hour Composite
Weekly	Ammonia	mg/L (as N)	Grab
Weekly	Total Nitrogen	mg/L	Calculated
Monthly	General Minerals	mg/L	24-Hour Composite
Annually	Priority Pollutants ¹	mg/L	24-Hour Composite

¹ Monitoring shall include, at a minimum, the constituents listed in Table 1 on page 14. Reporting shall conform with *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California Reporting Requirements*, section 2.4 et seq.

POND MONITORING

Permanent markers (e.g., staff gages) shall be placed in all ponds. The markers shall have calibrations indicating water level at the design capacity and available operational freeboard. Wastewater pond monitoring shall include at least the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
As required ¹	DO	mg/L	Grab
Weekly	Freeboard	feet ²	Grab

¹ If offensive odor is detected by or brought to the attention of WWTF personnel, the Discharger shall monitor the potential source pond(s) at least daily until dissolved oxygen > 1.0 mg/L, and weekly (between 8am and 9am) for a minimum of two weeks following, consistent with Provision I.9.

² To nearest tenth of a foot.

The Discharger shall inspect the condition of each wastewater pond weekly and record visual observations in a bound logbook. Notations shall include observations of whether weeds are developing in the water or along the bank, and their location; whether grease, dead algae, vegetation, scum, or debris are accumulating on the pond surface and their location; whether burrowing animals or insects are present; and the color of the reservoirs (e.g., dark green, dull green, yellow, gray, tan, brown, etc.). A summary of the entries made in the log shall be included in the subsequent monitoring report.

INDUSTRIAL PRETREATMENT PROGRAM MONITORING

The Discharger shall submit an annual report to the Regional Water Board, with copies to the EPA Regional Administrator and the State Water Resources Control Board, describing the Discharger's pretreatment activities over the previous 12 months. In the event that the Discharger is not in compliance with any conditions or requirements of this Order, the Discharger shall include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements. This annual report shall be submitted by **28 February** and shall contain, but not be limited to items E.7.a through E.7.j of Standard Provisions dated 1 March 1991 (Standard Provisions).

In addition to the information required in the annual report, the Discharger shall report quarterly the information in E.7.d (1) through E.7.d (7) of Standard Provisions. Quarterly reports shall also describe

progress towards compliance with audit or pretreatment compliance inspection requirements. Quarterly reports shall be submitted by **1st day of the second month following the end of each quarter**. At a minimum, the Discharger must submit a letter certifying that all industries are in compliance and no violations or changes to the pretreatment program have occurred during the quarter. The fourth quarterly report may be included as part of the annual report.

USE AREA MONITORING

The Discharger shall perform routine monitoring and loading calculations for each discrete irrigation area within the Use Area. Data shall be collected and presented in tabular format in accordance with Table 2 on page 15 of this MRP.

In addition, the Discharger shall inspect the Use Areas receiving recycled water on a weekly basis and record visual observations in a bound logbook. Notations shall include evidence of erosion, field saturation, runoff, or the presence of nuisance conditions (i.e., flies, ponding, etc.). A summary of the entries made in the log shall be included in the subsequent quarterly monitoring report.

SOURCE WATER MONITORING

For each source (either well or surface water supply), the Discharger shall calculate the flow-weighted average concentrations for the specified constituents utilizing monthly flow data and the most recent chemical analysis conducted in accordance with Title 22 drinking water requirements.

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Continuous	Flow	mgd	Meter
Monthly	EC	umhos/cm	Grab
Annually	General Minerals	mg/L	Grab

GROUNDWATER MONITORING

After measuring water levels and prior to collecting samples, each monitoring well shall be adequately purged to remove water that has been standing within the well screen and casing that may not be chemically representative of formation water. Depending on the hydraulic conductivity of the geologic setting, the volume removed during purging is typically from 3 to 5 volumes of standing water within the well casing and screen, or additionally the filter pack pore volume.

The Discharger shall monitor all wells in its Groundwater Monitoring Network, and any additional wells installed pursuant to this Order, for the following:

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Semiannually ¹	Depth to groundwater	feet ²	Measured
Semiannually ¹	Groundwater Elevation	feet ³	Computed

<u>Frequency</u>	<u>Constituent/Parameter</u>	<u>Units</u>	<u>Sample Type</u>
Semiannually ¹	pH	pH Units	Grab
Semiannually ¹	EC	umhos/cm	Grab
Semiannually ¹	Nitrate	mg/L (as N)	Grab
Semiannually ¹	Ammonia	mg/L (as N)	Grab
Semiannually ¹	TKN	mg/L	Grab
Semiannually ¹	Total Nitrogen	mg/L	Calculated
Semiannually ¹	EC	mg/L	Grab
Semiannually ¹	TDS	mg/L	Grab
Semiannually ¹	SAR	mg/L	Calculated
Semiannually ¹	General Minerals	mg/L	Grab
Annually ⁴	Metals ⁵	mg/L	Grab

¹ Monitoring frequency for each well shall be quarterly for new wells until at least 12 quarterly sample results have been reported, at which time the Discharger may reduce the monitoring frequency to semiannually.

² To nearest tenth of a foot.

³ To nearest tenth of a foot above Mean Sea Level.

⁴ Starting July 2013.

⁵ Including uranium and the metals listed under "Inorganics" in Table 1 of this MRP.

BIOSOLIDS/SLUDGE MONITORING

Sludge shall be sampled for the following constituents:

Arsenic	Copper	Nickel
Cadmium	Lead	Selenium
Molybdenum	Mercury	Zinc

Monitoring shall be conducted: using the methods in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846) and updates thereto, as required in Title 40 of the Code of Federal Regulations (40 CFR), Part 503.8(b)(4). The constituents listed above shall be monitored at the following frequency, depending on volume generated:

<u>Volume Generated (dry metric tons/year)</u>	<u>Frequency</u>
0 to 290	Annually
290 to 1,500	Quarterly
1,500 to 15,000	Bimonthly (six samples per year)
Greater than 15,000	Monthly

The Discharger shall demonstrate that treated sludge (i.e., biosolids) meets Class A or Class B pathogens reduction levels by one of the methods listed in 40 CFR, Part 503.32. The Discharger shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in 40 CFR, Part 503.33(b).

REPORTING

All monitoring results shall be reported in **Quarterly Monitoring Reports** which are due by the first day of the second month after the calendar quarter. Therefore, monitoring reports are due as follows:

First Quarter Monitoring Report:	1 May
Second Quarter Monitoring Report:	1 August
Third Quarter Monitoring Report:	1 November
Fourth Quarter Monitoring Report:	1 February

A transmittal letter shall accompany each monitoring report. The transmittal letter shall discuss any violations that occurred during the reporting period and all actions taken or planned for correcting violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions or a time schedule for implementing the corrective actions, reference to the previous correspondence is satisfactory.

The following information is to be included on all monitoring and annual reports, as well as report transmittal letters, submitted to the Central Valley Water Board:

City of Tulare
Tulare City Wastewater Treatment Facility
MRP R5-2013-0019
Contact Information (telephone number and email)

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner that illustrates clearly, whether the Discharger complies with waste discharge requirements.

In addition to the details specified in Standard Provision C.3, monitoring information shall include the method detection limit (MDL) and the reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated.

Laboratory analysis reports do not need to be included in the monitoring reports; however, the laboratory reports must be retained for a minimum of three years in accordance with Standard Provision C.3.

All monitoring reports shall comply with the signatory requirements in Standard Provision B.3. Monitoring data or discussions submitted concerning WWTF performance must also be signed and certified by the chief plant operator. If the chief plant operator is not in direct line of supervision of the laboratory function for a Discharger conducting any of its own analyses, reports must also be signed and certified by the chief of the laboratory.

All monitoring reports that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1.

At any time henceforth, the State or Central Valley Regional Water Board may notify the Discharger to electronically submit monitoring reports using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>) or similar system. Until such notification is given, the Discharger shall submit hard copy monitoring reports with tabulated electronic data on attached digital media (e.g., compact disc).

A. All Quarterly Monitoring Reports shall include the following:

Wastewater Reporting

1. The results of Industrial Plant and Domestic Plant Influent Monitoring, Industrial Plant Fermenter Monitoring, Industrial Plant and Domestic Plant Effluent Monitoring, Commingled Effluent Monitoring, Pond Monitoring, Industrial Pretreatment Program Monitoring, and Use Area Monitoring specified on pages 2 through 6.
2. For each month of the quarter, calculation of the maximum daily flow and the monthly average flow.
3. For each of the quarters, calculation of the 12-month rolling average EC of the discharge using the EC values for that month averaged with EC values for the previous 11 months.
4. For each month of the quarter and each Plant (Industrial and Domestic), calculation of the monthly average effluent BOD₅ and TSS concentrations, and calculation of the percent removal of BOD₅ and TSS compared to the influent.
5. A summary of the notations made in the Pond Monitoring Log and Use Area Monitoring Log during each quarter. Paper copies of log pages covering the quarterly reporting period shall not be submitted unless requested by Central Valley Water Board staff.

Groundwater Reporting

1. The results of Groundwater Monitoring specified on pages 6 and 7.
2. For each monitoring well, a table showing constituent concentrations for at least five previous years, if available, up through the current sampling period.
3. A groundwater contour map based on groundwater elevations for that sampling event. The map shall show the gradient and direction of groundwater flow under/around the facility and/or effluent disposal area(s). The map shall also include the locations of monitoring wells and wastewater discharge areas. The map shall be certified by a licensed professional engineer or geologist.

Source Water Reporting

1. The results of Source Water Monitoring specified on page 6.
2. For each month of the quarter, calculation of the flow-weighted 12-month rolling average EC of the source water using monthly flow data and the source water EC values for the most recent four quarters.

B. Fourth Quarter Monitoring Reports, in addition to the above, shall include the following:

Wastewater Treatment Facility Information

1. The names, certificate grades, and general responsibilities of all persons in charge of wastewater treatment and disposal.
2. The names and telephone numbers of persons to contact regarding the WWTF for emergency and routine situations.
3. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibrations (Standard Provision C.4).
4. A statement whether the current operation and maintenance manual, sampling plan, and contingency plan, reflect the WWTF as currently constructed and operated, and the dates when these documents were last reviewed for adequacy.
5. The results of an annual evaluation conducted pursuant to Standard Provision E.4 and a figure depicting monthly average discharge flow for the previous five calendar years.
6. A summary and discussion of the compliance record for the reporting period. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with this Order.

Biosolids/Sludge Monitoring

1. Annual production totals in dry tons or cubic yards.
2. A description of disposal methods, including the following information related to the disposal methods used. If more than one method is used, include the percentage disposed of by each method.
 - a. For landfill disposal, include: the name and location of the landfill, and the Order number of WDRs that regulate it.

- b. For land application, include: the location of the site, and the Order number of any WDRs that regulate it.
- c. For incineration, include: the name and location of the site where incineration occurs, the Order number of WDRs that regulate the site, the disposal method of ash, and the name and location of the facility receiving ash (if applicable).
- d. For composting, include: the location of the site, and the Order number of any WDRs that regulate it.

Use Area Reporting

- 1. The type of crop(s) grown in the Use Areas, planting and harvest dates, and the quantified nitrogen and total dissolved solids uptakes (as estimated by technical references or, preferably, determined by representative plant tissue analysis).
- 2. The monthly and annual discharge volumes during the reporting year expressed as million gallons and inches.
- 3. A monthly water balance for the reporting year that includes:
 - a. Monthly average ETo (reference evapotranspiration) – Information sources include California Irrigation Management Information System (CIMIS)
<http://www.cimis.water.ca.gov/>
 - b. Monthly crop uptake
 - i. Crop water utilization rates are available from a variety of publications available from the local University of California Davis extension office.
 - ii. Irrigation efficiency – Frequently, engineers include a factor for irrigation efficiency such that the application rate is slightly greater than the crop utilization rate. A conservative design does not include this value.
 - c. Monthly average precipitation – this data is available at <http://www.cimis.water.ca.gov/> or at <http://www.ncdc.noaa.gov/oa/climate/online/ccd/nrmlprcp.html>.
 - d. Monthly average and annual average discharge flow rate.
 - e. Monthly estimates of the amount of wastewater percolating below the root zone (i.e., amount of wastewater applied in excess of crop requirements).
- 4. The total pounds of nitrogen applied to the Use Areas, as calculated from the sum of the monthly loadings, and the total annual nitrogen loading to the Use Areas in lbs/acre-year.

5. The total pounds of total dissolved solids (TDS) that have been applied to the Use Areas, as calculated from the sum of the monthly loadings, and the total annual TDS loading to the Use Areas in lbs/acre-year.
6. A summary of the notations made in the Use Area monitoring log during the year. The entire contents of the log do not need to be submitted.
7. A scaled map depicting all the Use Areas available to the Discharger for application of WWTF effluent. The map shall include the effluent distribution system with key features (air gap devices, major control valves, pumps, recycled water public notice signs, etc.) labeled. The map shall identify the owner of each Use Area.

The Discharger shall implement the above monitoring program on the first day of the month following adoption of this Order.

Original signed by:

Ordered by: _____
PAMELA C. CREEDON, Executive Officer

11 April 2013

(Date)

GLOSSARY

BOD ₅	Five-day biochemical oxygen demand
CBOD	Carbonaceous BOD
DO	Dissolved oxygen
EC	Electrical conductivity at 25° C
FDS	Fixed dissolved solids
NTU	Nephelometric turbidity unit
TKN	Total Kjeldahl nitrogen
TDS	Total dissolved solids
TSS	Total suspended solids
Continuous	The specified parameter shall be measured by a meter continuously.
24-Hour Composite	Samples shall be a flow-proportioned composite consisting of at least eight aliquots.
Daily	Samples shall be collected at least every day.
Twice Weekly	Samples shall be collected at least twice per week on non-consecutive days.
Weekly	Samples shall be collected at least once per week.
Twice Monthly	Samples shall be collected at least twice per month during non-consecutive weeks.
Monthly	Samples shall be collected at least once per month.
Bimonthly	Samples shall be collected at least once every two months (i.e., six times per year) during non-consecutive months.
Quarterly	Samples shall be collected at least once per calendar quarter. Unless otherwise specified or approved, samples shall be collected in January, April, July, and October.
Semiannually	Samples shall be collected at least once every six months (i.e., two times per year). Unless otherwise specified or approved, samples shall be collected in April and October.
Annually	Samples shall be collected at least once per year. Unless otherwise specified or approved, samples shall be collected in October.
mg/L	Milligrams per liter
mL/L	milliliters [of solids] per liter
ug/L	Micrograms per liter
umhos/cm	Micromhos per centimeter
mgd	Million gallons per day
MPN/100 mL	Most probable number [of organisms] per 100 milliliters
General Minerals	Analysis for General Minerals shall include at least the following:
	Alkalinity
	Chloride
	Sodium
	Bicarbonate
	Hardness
	Sulfate
	Calcium
	Magnesium
	TDS
	Carbonate
	Potassium
	Nitrate
	General Minerals analyses shall be accompanied by documentation of cation/anion balance.

Table 1. Priority Pollutant Scan

<u>Inorganics¹</u>	<u>Organics</u>		
Antimony	Acrolein	3-Methyl-4-Chlorophenol	Hexachlorobenzene
Arsenic	Acrylonitrile	Pentachlorophenol	Hexachlorobutadiene
Beryllium	Benzene	Phenol	Hexachlorocyclopentadiene
Cadmium	Bromoform	2,4,6-Trichlorophenol	Hexachloroethane
Chromium (III)	Carbon tetrachloride	Acenaphthene	Indeno(1,2,3-c,d)pyrene
Chromium (VI)	Chlorobenzene	Acenaphthylene	Isophorone
Copper	Chlorodibromomethane	Anthracene	Naphthalene
Lead	Chloroethane	Benzidine	Nitrobenzene
Mercury	2-Chloroethylvinyl Ether	Benzo(a)Anthracene	N-Nitrosodimethylamine
Nickel	Chloroform	Benzo(a)pyrene	N-Nitrosodi-n-Propylamine
Selenium	Dichlorobromomethane	Benzo(b)fluoranthene	N-Nitrosodiphenylamine
Silver	1,1-Dichloroethane	Benzo(g,h,i)perylene	Phenanthrene
Thallium	1,2-Dichloroethane	Benzo(k)fluoranthene	Pyrene
Zinc	1,1-Dichloroethylene	Bis(2-chloroethoxy) methane	1,2,4-Trichlorobenzene
Cyanide	1,2-Dichloropropane	Bis(2-chloroethyl) ether	
Asbestos	1,3-Dichloropropylene	Bis(2-chloroisopropyl) ether	<u>Pesticides</u>
	Ethylbenzene	Bis(2-Ethylhexyl)phthalate	Aldrin
	Methyl Bromide	4-Bromophenyl phenyl ether	alpha-BHC
<u>Dioxin Congeners</u>	Methyl Chloride	Butylbenzyl Phthalate	beta-BHC
2,3,7,8-TCDD	Methylene Chloride	2-Chloronaphthalene	gamma-BHC (Lindane)
1,2,3,7,8-PentaCDD	1,1,2,2-Tetrachloroethane	4-Chlorophenyl Phenyl Ether	delta-BHC
1,2,3,4,7,8-HexaCDD	Tetrachloroethylene (PCE)	Chrysene	Chlordane
1,2,3,6,7,8-HexaCDD	Toluene	Dibenzo(a,h)Anthracene	4,4'-DDT
1,2,3,7,8,9-HexaCDD	1,2-Trans-Dichloroethylene	1,2-Dichlorobenzene	4,4'-DDE
1,2,3,4,6,7,8-HeptaCDD	1,1,1-Trichloroethane	1,3-Dichlorobenzene	4,4'-DDD
OctaCDD	1,1,2-Trichloroethane	1,4-Dichlorobenzene	Dieldrin
2,3,7,8-TetraCDF	Trichloroethylene (TCE)	3,3'-Dichlorobenzidine	alpha-Endosulfan
1,2,3,7,8-PentaCDF	Vinyl chloride	Diethyl phthalate	beta-Endosulfan
2,3,4,7,8-PentaCDF	2-Chlorophenol	Dimethyl phthalate	Endosulfan Sulfate
1,2,3,4,7,8-HexaCDF	2,4-Dichlorophenol	Di-n-Butyl Phthalate	Endrin
1,2,3,6,7,8-HexaCDF	2,4-Dimethylphenol	2,4-Dinitrotoluene	Endrin Aldehyde
1,2,3,7,8,9-HexaCDF	2-Methyl-4,6-Dinitrophenol	2,6-Dinitrotoluene	Heptachlor
2,3,4,6,7,8-HexaCDF	2,4-Dinitrophenol	Di-n-Octyl Phthalate	Heptachlor epoxide
1,2,3,4,6,7,8-HeptaCDF	2-Nitrophenol	1,2-Diphenylhydrazine	Polychlorinated biphenyls
1,2,3,4,7,8,9-HeptaCDF	4-Nitrophenol	Fluoranthene	Toxaphene
OctaCDF		Fluorene	

¹ With the exception of wastewater samples, samples for metals analysis must first be filtered. If filtering in the field is not feasible, samples shall be collected in unpreserved containers and submitted to the laboratory within 24 hours with a request (on the chain of custody form) to immediately filter then preserve the sample.

² Samples to be analyzed for volatile compounds and phthalate esters shall be grab samples; the remainder shall be 24-hour composite samples.

Table 2. Use Area Monitoring

Recycled Water Monitoring Data For Year: _____								
Parcel No. _____ of _____ acres								
		Water application				Nitrogen application		
		Water required	Effluent used	Other water used	Total irrigation water	As fertilizer	As effluent*	Total nitrogen applied
Month	Crop	(AF)	(AF)	(AF)	(AF)	(lbs/acre)	(lbs/acre)	(lbs/acre)
October								
November								
December								
Subtotal:								
January								
February								
March								
Subtotal:								
April								
May								
June								
Subtotal:								
July								
August								
September								
Subtotal:								
Annual Total:								
* calculated as (AF effluent/acre) x (2.72) x (X mg/l total nitrogen) = lbs nitrogen/acre								

INFORMATION SHEET

INFORMATION SHEET-ORDER R5-2013-0019
CITY OF TULARE
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

Background

The City of Tulare Wastewater Treatment Facility (WWTF) consists of two wastewater treatment plants (Plants), the Domestic Plant and Industrial Plant. Waste Discharge Requirements (WDRs) Order R5-2002-0185 authorizes discharge of up to 9.39 mgd of commingled effluent from the two treatment plants, with provisions for conditional increase in the limit to as much as 14 mgd. The WWTF receives domestic wastewater (which includes commercial and some industrial wastewater) from the City's approximately 60,000 residents, and, in a segregated stream, industrial wastewater mainly from six large dairy processing plants, including from what is reportedly the nation's largest dairy processing complex, a Land O'Lakes facility. Each treatment plant provides secondary treatment before the effluent is mixed and discharged to unlined ponds for storage, percolation, and evaporation. The City delivers undisinfected effluent to nearby lands via subsurface purple pipe for recycled water projects. The designated recycled water application areas (Use Areas) consist of City-owned land and other farms growing feed crops not for human consumption. McCarthy Family Farms, Inc. discharges sludge from the WWTF at its facility in Corcoran as an enrollee under WDRs Order 95-140, *Waste Discharge Requirements General Order for Reuse of Biosolids and Septage on Agricultural, Forest, and Reclamation Sites*.

In 2002, the Central Valley Water Board found that the City had polluted groundwater with nitrate, iron, manganese, and salts. Concurrent with the WDRs, the Central Valley Water Board adopted Cease and Desist Order (CDO) R5-2002-0186 to address groundwater degradation and other compliance issues.

The 2002 WDRs set groundwater limits and include a time schedule for the City to demonstrate compliance with the State's Antidegradation Policy. To demonstrate consistency with the Antidegradation Policy, the WDRs require the City to:

1. Determine background groundwater quality;
2. Conduct a Best Practicable Treatment or Control (BPTC) analysis; and
3. Submit proposed specific numeric groundwater quality limitations reflecting implementation of BPTC and compliance with applicable water quality objectives, interpreted as described in the Tulare Lake Basin Plan section entitled "Application of Water Quality Objectives."

The 2002 CDO was adopted because the City had failed to comply with numerous items in its previous WDRs, including effluent and groundwater limits, and it would immediately violate the 2002 WDRs. The CDO requires the City to:

1. Prepare a facilities plan (assessing flow, disposal, pollutant free waste, sludge handling, etc.);
2. Revise its Industrial Pretreatment Program (IPP);
3. Implement salinity control;
4. Conduct groundwater and soils investigations; and

5. Cleanup groundwater.

The City installed additional groundwater monitoring wells, submitted a Facilities Plan, a Salinity Source Control Plan, groundwater assessments, and implemented changes to its Industrial Pretreatment Program. The City has completed significant modifications to the WWTF, including:

- In 2006, it added an anoxic basin to the 6.0-mgd Domestic Plant for nitrogen removal.
- In 2006, the City constructed soil cement-lined sludge drying beds for domestic sludge.
- In 2009, the City completed the improvements listed below to upgrade the Industrial Plant to a 12.0-mgd sequential batch reactor (SBR) plant:
 - a dissolved air flotation (DAF) unit to remove fats, oils, and grease (FOG) from wastewater that bypasses the bulk volume fermenter (Fermenter);
 - six sequencing batch reactors (SBRs);
 - six denitrifying filters;
 - two DAF units for thickening solids generated in the SBRs;
 - three anaerobic digesters; and
 - 25 acres of soil cement-lined sludge drying beds.
- In 2009, the City completed four additional unlined effluent storage and percolation ponds. The new ponds increased storage capacity approximately 915 acre-ft for a total of 2,700 acre-feet of commingled effluent storage.
- Since 2002, the City negotiated contracts and installed pipelines to deliver treated effluent to nearby farmland for reclamation on about 1,600 additional acres for a total of approximately 2,920 acres (estimated 2,620 acres to receive effluent) of Use Areas.

The City submitted a Report of Waste Discharge in June 2009 describing the changes the City has made and intends to make to the WWTF. The WWTF is designed to meet BOD limits and the anticipated effluent limit of 10 mg/L total nitrogen. The Report of Waste Discharge includes an Antidegradation Analysis, which is the culmination of multiple studies and reports required by the 2002 WDRs, including a BPTC evaluation for which the City conducted a thorough assessment of waste constituents in commingled effluent and compared the results to a similar assessment of waste constituents in select groundwater wells. The BPTC reports progressively narrow the list of constituents of concern (COCs) to sodium, TDS, EC, manganese, and nitrate, for each of which the RWD proposes treatment (for nitrate only) or control measures.

The current WDRs do not address changes the City has made to the WWTF and do not reflect updated information now available to Central Valley Water Board staff. The City has made significant progress in addressing issues raised in the 2002 WDRs and CDO. The WDRs need to be updated, and the CDO is no longer reflective of the current conditions of the WWTF and should be rescinded. Pending further Central Valley Water Board staff assessment, a separate enforcement order may be appropriate for groundwater degradation due to historic discharges from the WWTF.

Water Recycling Requirements

As part of its RWD, the City requested that the Central Valley Water Board adopt a Master Recycling Permit that authorizes the City to administer its own recycled water program as part of updated Waste Discharge Requirements. The City's projected water balance depends heavily on proposed recycled water projects for disposal of effluent. This Order includes a Master Recycling Permit, as described in Water Code section 13523.1(b).

The California Department of Public Health (formerly Department of Health Services) has established uniform statewide recycled water criteria in Title 22, California Code of Regulations, Section 60301 et seq., (hereafter Title 22) for the use of recycled water and has developed guidelines for specific uses. The most recent revisions to recycled water-related statutes were made effective 1 January 2011. Attachment E, a part of this Order, summarizes requirements of the uniform recycled water criteria. However, the City and Users will need to consult the California Code of Regulations, the Health and Safety Code, and the Water Code directly to ensure compliance with the statutes and regulations.

The City will treat the wastewater to the standards required in Title 22 for irrigation with secondary undisinfected domestic effluent of animal feed crops not for human consumption. As the responsible party named in the Master Recycling Permit, the City is responsible for the operation and maintenance of transport facilities and associated appurtenances used to distribute the secondary undisinfected recycled water. The City shall hold its Users responsible for the application and use of recycled water on the designated Use Areas and associated operations and maintenance in accordance with all applicable Title 22 requirements and this Order. The Order, as proposed, includes requirements for the City to establish and enforce rules and regulations for recycled water users in accordance with uniform statewide recycling criteria, and for its Users to conduct periodic inspections of the recycled water use sites.

The City will be responsible for administering User agreements and informing individual owners regarding the use and application of recycled water as well as obtaining recorded covenants for land dedicated for effluent disposal to ensure unrestricted availability of land for disposal of effluent.

This Order as proposed would require the City as the Distributor of recycled water to implement and enforce specific measures relating to the use of recycled water. These include: (a) posting of appropriate warning signs around Use Areas, (b) maintaining setback distances, (c) ensuring distribution and delivery systems are well maintained and operational, and (d) requiring that recycled water be applied at agronomic rates.

The proposed Order would require the City and/or User to monitor its application in accordance with the proposed Monitoring and Reporting Program. Specifically, the proposed Order would require the City and/or its User to report the amounts of recycled water applied to the Use Areas, calculate nitrogen and salt loading to individual Use Areas, inspect the Use Areas on at least a monthly basis to ensure that water recycling is in compliance with the proposed Order; and submit required annual monitoring reports to the Central Valley Water Board.

The Use Areas may contain topography that would promote runoff unless closely managed during irrigation. Runoff has potential to enter drainage channels or surface water. Such runoff cannot occur except under an NPDES permit, and the City and/or its Users are required to provide all runoff controls necessary to keep effluent irrigation runoff out of drainage channels or surface waters. However, minor amounts of incidental runoff or over-spray cannot be completely prevented. The proposed Order requires that incidental runoff or over-spray be minimized to the extent practicable through operational strategies.

Groundwater Conditions

Groundwater flow in the unconfined aquifer of the Kaweah subbasin is generally to the southwest, toward the trough of the valley. Localized variations due to pumping and recharge result in a more westerly gradient near the City of Tulare. The City's discharge of WWTF effluent results in some groundwater mounding in the vicinity of the effluent ponds. The mound alters groundwater flow direction near the WWTF, but lateral flow underlying the Use Areas appears to be to the west, consistent with outlying areas. Groundwater in the unconfined aquifer is first encountered at depths of about 65 to 85 feet bgs in the vicinity of the WWTF and Use Areas.

Sources of groundwater recharge in the area include precipitation, land application of wastewater (including numerous dairies), and excellent quality surface water. Recharge from surface water occurs through natural waterways (the Kaweah River and its distributaries), irrigation, and groundwater recharge projects. The Tulare Irrigation District delivers water from the Kaweah and Saint Johns Rivers and from the Friant-Kern Canal to area growers. The Tulare Irrigation District maintains multiple groundwater recharge basins and unlined canals designed to recharge groundwater for use during drought years. Recycled water users receive Tulare Irrigation District water deliveries and maintain irrigation supply wells for irrigation. Elk Bayou, flowing southwest from Outside Creek, is within about a mile of the southernmost Use Areas.

The City maintains a groundwater monitoring well network of 29 wells. Groundwater levels have dropped below the screened interval of 12 wells. Of the remaining 17, seven of the wells are screened across the groundwater surface. The other 10 were constructed 30 to 50 feet below the groundwater surface to monitor the vertical extent of groundwater degradation. No functional monitoring wells exist to monitor first-encountered groundwater downgradient from the Domestic or Industrial sludge drying beds, or downgradient from the majority of the recycled water Use Areas. The single upgradient well generally appears to represent upgradient groundwater quality, but is not screened across the groundwater surface and is not sufficient for the large discharge area. The City is limited in its ability to assess upgradient groundwater conditions and groundwater degradation because its groundwater monitoring well network is inadequate.

The 2009 RWD includes estimated background groundwater constituent concentrations based on MW-31. Two upgradient California Department of Water Resources wells of depth comparable to MW-31 had chloride concentrations from 5 mg/L to 12 mg/L and a nitrate concentration of 3.8 mg/L as nitrogen in 1956. A slightly deeper (136 feet) downgradient well in 1956 had similar results for chloride and 0.2 mg/L nitrate with an EC of about 290 umhos/cm. Groundwater unaffected by the discharge has an EC of less than 500 umhos/cm, chloride of less than 20 mg/L, and total nitrogen less than 10 mg/L as nitrogen. The published data generally agrees with the characterization in the RWD (MW-31), with the exception of nitrate, which the RWD reports to be about 15 mg/L as nitrogen.

The table below summarizes pertinent data for each well in the City's groundwater monitoring well network. The wells are listed according to the area the well is intended to represent.

	<u>Construction Date</u>	<u>Top of Casing Elevation ft AMSL</u>	<u>Ground Elevation ft AMSL</u>	<u>Well Diameter inches</u>	<u>Screened Interval ft bgs</u>	<u>Depth to Water ft bgs</u>
Upgradient						
MW-1	Jun 1990	267.58	267.88	2	55-75	Dry
MW-2	Aug 1989	270.53	269.20	2	60-80	Dry
MW-12	Jun 1990	272.73	273.18	2	65-85	Dry
MW-31	Mar 2006	277.47	-	6	125-150	112
MW-32	Mar 2006	277.37	-	6	65-90	Dry
Downgradient of Effluent Ponds						
MW-18	Mar 2001	263.50	264.70	4	50-75	68
MW-19	Mar 2001	261.50	262.40	4	60-85	66
MW-20	Mar 2001	264.06	264.00	4	60-85	76
MW-21	Mar 2001	263.63	264.13	4	55-80	Dry
MW-25	Mar 2006	270.86	271.10	6	120-140	73
MW-26	Mar 2006	270.99	271.39	6	70-95	69
MW-27	Mar 2006	262.27	262.67	6	135-150	67
Downgradient of Use Areas						
MW-3	Aug 1989	259.81	260.21	2	55-75	70
MW-10	Aug 1989	252.56	252.86	2	63-83	Dry
MW-11A	May 1991	252.77	251.67	2	100-140*	85
MW-15A	Jul 1990	256.28	254.84	2	55-75	66
MW-16	Aug 1990	254.99	254.24	2	56-76	66
MW-24	Mar 2006	264.57	264.97	6	102-127	86
MW-28	Mar 2006	252.03	252.43	6	140-155	83
MW-29	Mar 2006	251.99	252.39	6	60-90	Dry
MW-30	Mar 2006	251.46	251.86	6	80-110	85
MW-34	Apr 2006	253.25	253.65	6	130-155	82
MW-35	Apr 2006	260.00	260.30	6	130-155	70
Downgradient of Domestic Sludge Drying Beds						
MW-22	Mar 2001	262.11	262.81	4	65-90	Dry
Downgradient or Cross-gradient from WWTF						
MW-6	Sep 1989	263.94	262.51	2	60-80	Dry
MW-23	Mar 2006	264.32	263.37	6	128-148	90
Far Downgradient						
MW-14	Jul 1990	240.67	239.12	2	71-91	Dry
MW-15B	Aug 1990	246.61	244.66	2	59-79	Dry
MW-33	Mar 2006	241.62	242.02	6	130-155	103

Wells MW-1, MW-2, MW-12, MW-16, MW-20, and MW-24 appear to be strongly influenced by intermittent seepage of excellent quality surface water from the Tulare Irrigation District. Samples from MW-16 have been fluctuating from an EC of about 200 umhos/cm to about 1,200 umhos/cm. The City has recently questioned the value of monitoring wells MW-1, MW-2, and MW-12. MW-1 and MW-12 have not had water sufficient to collect a sample for years. Well MW-2 reportedly only contains water when the adjacent canal contains water, suggesting the annular seal has failed and the well needs to be properly destroyed to prevent transport of waste to groundwater.

Basin Plan, Beneficial Uses, and Regulatory Considerations

The Basin Plan identifies the greatest long-term water quality problem facing the entire Tulare Lake Basin as increasing salinity in groundwater, a process accelerated by man's activities and particularly affected by intensive irrigated agriculture. The Basin Plan recognizes that degradation is unavoidable until there is a long-term solution to the salt imbalance. Until then, the Basin Plan establishes several salt management requirements, including the following limits:

- a. The incremental increase in salts from use and treatment must be controlled to the extent possible. The maximum EC of the effluent discharged to land shall not exceed the EC of the source water plus 500 umhos/cm. When the source water is from more than one source, the EC shall be a weighted average of all sources.
- b. Discharges to areas that may recharge good quality groundwater shall not exceed an EC of 1,000 umhos/cm, a chloride content of 175 mg/L, or boron content of 1.0 mg/L.

The Basin Plan establishes numeric and narrative water quality objectives for surface waters and groundwater within the basin. Numeric water quality objectives quantify the maximum degradation that will not adversely affect the beneficial use of the water. Narrative water quality objectives are an unquantified expression of the maximum degradation that will not adversely affect the beneficial use of the water. For example, the toxicity objective requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in humans, plants, or animals. The chemical constituent objective states that groundwater shall not contain chemical constituents in concentrations that adversely affect any beneficial use.

The Basin Plan requires municipal WWTFs that discharge to land to comply with treatment performance standards for BOD₅ and TSS. WWTFs that preclude public access and are greater than 1 mgd must provide removal of 80 percent or reduction to 40 mg/L, whichever is more restrictive, for both BOD₅ and TSS.

Antidegradation

State Water Board Resolution 68-16 (*"Policy with Respect to Maintaining High Quality Water of the State"*) (the "Antidegradation Policy") prohibits degradation of groundwater unless it has been shown that: the degradation does not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives; the degradation will not unreasonably affect present and anticipated future beneficial uses; the Discharger employs Best Practicable Treatment or Control (BPTC) to minimize degradation; and the degradation is consistent with the maximum benefit to the people of the state.

WDRs Order R5-2002-0185 was intended to be the first phase of a two-phased approach to ensure that the discharge will be fully consistent with water quality plans and policies. The 2002 WDRs established groundwater limitations consistent with water quality objectives determined from discharge-specific information available at the time. The 2002 WDRs suggest that, pending the completion of certain tasks to upgrade the WWTF and accumulate more site-specific information in accordance with a time schedule, the Board may adopt, in updated WDRs (Phase 2), revised groundwater limitations based on a more complete assessment of applicable water quality objectives.

The quality of the discharge has greatly improved since the 2002 WDRs, resulting in a reduction in anticipated groundwater degradation. The discharge is better quality in terms of essentially all constituents of concern, including salts, nitrogen, total organic carbon, and chemical constituents related to commercial and industrial waste discharged to the sewer system.

The City has reduced the overall salinity of the discharge through a combination of source reduction on the part of industrial sewer users and upgraded treatment at the WWTF. The City submitted a Salinity Control Plan in November 2004 characterizing sources of salinity. The Salinity Control Plan estimates that about 40 percent of discharge salinity at the time was from industrial sources and nearly 30 percent was added at the WWTF for pH stabilization with magnesium oxide. Particularly through strategic use of ammonia in place of inorganic compounds for added alkalinity, the City has been able to remove the majority of added salinity at the WWTF.

For sodium, chloride, and EC, there are currently no promulgated numeric standards to ensure the protection of waters designated as supporting the agricultural supply beneficial use. The average discharge EC of about 630 umhos/cm meets the Basin Plan limits of 1,000 umhos/cm and source water plus 500 umhos/cm (about 700 umhos/cm). Since groundwater unaffected by discharges has an EC less than 500 umhos/cm, limited degradation may occur, but the discharge is not expected to increase groundwater salinity to the extent that it would adversely affect beneficial uses.

As part of its 2009 RWD, the City submitted *Evaluation of interim groundwater quality limits (EC, TDS, B, Cl and Na) posed on POTWs for protection of irrigated agriculture in the Central/Southern San Joaquin Valley* by Dr. Stephen Grattan of UC Davis. Dr. Grattan prepared the report for 18 communities in the Tulare Lake Basin in 2004. The Grattan report proposes a methodology for setting numerical water quality goals for groundwater that would result in less stringent groundwater limits. For the City of Tulare, the Grattan report proposes groundwater limits for sodium of 115 mg/L, chloride of 175 mg/L, and EC of 1,000 umhos/cm.

Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) is a collaborative basin planning effort aimed at developing and implementing a comprehensive salinity and nitrate management program. Part of the CV-SALTS process involves assessing the far-reaching implications of various methodologies, like that proposed in the Grattan report, for establishing numeric water quality limits that would be protective of the agricultural supply beneficial use. Until the program is developed, the Central Valley Water Board establishes groundwater limits to implement narrative water quality objectives (e.g., the Toxicity Objective) on a case-by-case basis. WDRs Order R5-2002-0185 established groundwater limits at 69 mg/L for sodium and 106 mg/L for chloride. The justification for imposing these limits in WDRs Order R5-2002-0185 is consistent with the current implementation policies in the Basin Plan, and therefore this Order carries over the same groundwater limits. However, since CV-SALTS is expected to address some of the ambiguities regarding the

protection of beneficial uses in the next few years (e.g., 69 mg/L is considered to be a very conservative value under most conditions), this Order implements a performance-based groundwater limit of 110 mg/L for 8 years. In this timeframe, if the CV-SALTS process does not result in modifications to the Basin Plan's implementation provisions, then the City will have time to design treatment alternatives. The average commingled effluent sodium concentrations, based on four samples collected in 2012, is about 110 mg/L. Groundwater data for MW-26, the shallow well centrally located in the effluent pond area, shows sodium concentrations of 140 mg/L, 120 mg/L, 110 mg/L, and 110 mg/L in quarterly samples collected in January, April, July, and October 2012, respectively.

For nitrogen, the City adds large amounts of ammonia to stabilize the pH of influent industrial wastewater. Failure to remove the added nitrogen, in addition to relatively high influent nitrogen concentrations, could result in large amounts of nitrogen percolating to groundwater, potentially causing significant degradation that could lead to pollution with nitrate. However, both Plants at the WWTF include nitrogen removal treatment, with a design effluent of 10 mg/L or less. In a report entitled *Preliminary Design Report for City of Tulare Industrial Wastewater Treatment Plant Expansion*, Parsons Corporation established the design effluent total nitrogen concentration of 10 mg/L or less as a monthly average, apparently to achieve a groundwater nitrate concentration of no more than 10 mg/L as nitrogen.

The City has demonstrated, with water and nitrogen balance calculations, that discharges to the Use Areas, where crops will take up nitrogen, is not expected to result in significant groundwater degradation with nitrate. Regarding discharges from the effluent ponds, the City requested that Central Valley Water Board staff consider that the Water Quality Control Plan for the Santa Ana River Basin adjusts discharge limits up based on a minimum 25 percent removal of total inorganic nitrogen from effluent percolated from ponds. Water quality data from the City's groundwater monitoring well network suggest significant denitrification (more than 25 percent) occurs beneath the effluent ponds. A commingled effluent limit of 13 mg/L (the approximate effluent total nitrogen expected to result in groundwater nitrate of no more than 10 mg/L as nitrogen after 25 percent removal) is appropriate. The commingled effluent total nitrogen concentration is near 10 mg/L (8.1 mg/L on average for 2012). The monthly average commingled effluent total nitrogen exceeded 10 mg/L three times in 2012, but did not exceed 12 mg/L. The discharge, as authorized by this Order, is not expected to cause degradation of groundwater with nitrate that would exceed water quality objectives or adversely affect beneficial uses.

Regarding other constituents, groundwater degradation to the point of exceedance of water quality objectives or adverse impacts to beneficial uses are not expected. Particularly since the City has improved BOD removal at the WWTF, the anticipated degradation of groundwater with total organic carbon is less than from discharges from similar facilities authorized by the Central Valley Water Board and is not expected to adversely impact the beneficial use of groundwater. Land application is considered a form of treatment and control of treated domestic waste that contains pathogens. Regarding anthropogenic chemical constituents related to commercial and industrial waste discharged to the sewer system, the City implements a revised Industrial Pretreatment Program and activated sludge in the WWTF is expected to remove volatile and biodegradable wastes.

The WWTF will provide treatment and control of the discharge that incorporates: secondary treatment of wastewater with nitrogen removal; sludge hauled off-site; recycling of wastewater for crop irrigation;

an operation and maintenance manual; implementation of an Industrial Pretreatment Program; implementation of a Salinity Management Plan; implementation of a nutrient management plan; certified operators to ensure proper operation and maintenance; and source water, discharge, and groundwater monitoring.

Generally, limited degradation of groundwater by some of the typical waste constituents of concern (e.g., EC and nitrate) released with discharge from a municipal wastewater utility after effective source control, treatment, and control is consistent with maximum benefit to the people of the State. This Order establishes terms and conditions to ensure that the discharge will not unreasonably affect present and anticipated beneficial uses of groundwater or result in groundwater quality less than that prescribed in state and regional policies. The treatment and control measures are equivalent or better than those employed by similarly-situated dischargers, and are a significant improvement over measures employed by the Discharger in previous years, and therefore represent BPTC. Therefore, the degradation authorized by this Order is consistent with the Antidegradation Policy.

CEQA

The City has acted as lead agency for each expansion project associated with the WWTF pursuant to the California Environmental Quality Act (CEQA). The table below lists CEQA documents for projects that pertain to the discharge this Order regulates.

<u>Date</u>	<u>Document</u>	<u>Description</u>
7 Dec 1993	Program EIR for the General Plan	Includes mitigation measures to increase sewer connection fees to provide adequate funds for future WWTF projects.
16 Nov 1995	Resolution No. 95-480	Establishes that the City's plan to increase the Domestic Plant treatment capacity from 4.0 to 8.0 mgd was within the scope of the 1993 Program EIR.
7 Aug 2001	EIR for WWTF	For Domestic and Industrial Plant expansion to 6 mgd and 8 mgd, respectively. Identifies a large region available for potential Use Areas. Does not identify particular impacts to water quality resulting from the increased discharge. Notes that compliance with existing laws and regulations would mitigate adverse impacts from the WWTF expansion project.
18 Oct 2002	2002 WDRs	Describes 2001 EIR inadequacies. Cites some of its provisions as new mitigation measures.
20 Jul 2006	Mitigated Negative Declaration	For expansion of the Industrial Plant and Domestic Plant to 12 mgd and 8 mgd, respectively.
18 Mar 2008	EIR for General Plan Update	Final Environmental Impact Report for the City of Tulare General Plan Update.
7 Oct 2010	Mitigated Negative Declaration	Another mitigated negative declaration for expansion of the Domestic Plant to 8 mgd. The City submitted a

<u>Date</u>	<u>Document</u>	<u>Description</u>
		Domestic Plant Design Report by email in response to Central Valley Water Board staff comments.

Consistent with the role of responsible agency, Central Valley Water Board staff reviewed and commented on the draft CEQA documents circulated by City, which has acted as the lead agency for all of the above environmental approvals. The City ultimately approved the CEQA documents for the City WWTF's expansions. This Order imposes regulatory requirements on a project that has already undergone multiple environmental reviews pursuant to CEQA, and no additional CEQA analysis is required.

Title 27

Unless the Board finds that the discharge of designated waste is exempt from Title 27 of the California Code of Regulations, the release of designated waste is subject to full containment requirements. Here, the discharge is exempt from the requirements of Title 27 pursuant to the wastewater exemption found at Title 27, section 20090 (b).

Proposed Order Terms and Conditions

Discharge Prohibitions, Specifications and Provisions

The proposed Order prohibits the discharge of waste to surface waters and to surface water drainage courses, and prohibits the cross connection between potable water and well piping with recycled water piping.

The proposed Order restricts the Discharger to a monthly average Domestic Plant effluent flow limit of 5.0 mgd until the Discharger can demonstrate the Domestic Plant can treat a monthly average flow of 6.0 mgd, or 8.0 mgd. The proposed Order restricts the Discharger to a monthly average Industrial Plant effluent flow limit of 12.0 mgd. The proposed Order also restricts the Discharger to a monthly average commingled effluent flow limit of 16.0 mgd until the Discharger can demonstrate the disposal capacity to accommodate 18.0 mgd, or 20.0 mgd.

This Order sets effluent limits for BOD₅ and TSS of 40 mg/L as monthly average and 80 mg/L as daily maximum. These limitations are based on Basin Plan minimum performance standards for municipal facilities. This Order also limits commingled effluent total nitrogen to 13 mg/L or less.

The proposed Order's provisions regarding storage pond dissolved oxygen and freeboard are consistent with Central Valley Water Board policies for the prevention of nuisance conditions, and are applied to all similarly-situated facilities. Additional provisions include conditional increases in effluent flow limitations and requirements to submit multiple technical reports, including a Salinity Management Plan, Groundwater Monitoring Well Work Plan, Groundwater Monitoring Well Installation Report, and a Sludge Drying Bed Assessment Report.

The proposed Order is also a Master Recycling Permit with requirements consistent with Water Code section 13523.1, including the requirement to establish and have the authority to enforce rules and/or regulations for recycled water Users governing the design and construction of recycled water use facilities and the use of recycled water in accordance with water recycling criteria established in Title 22, California Code of Regulations and this Order.

The proposed Order prescribes groundwater limitations that ensure the discharge does not affect present and anticipated future beneficial uses of groundwater.

Monitoring Requirements

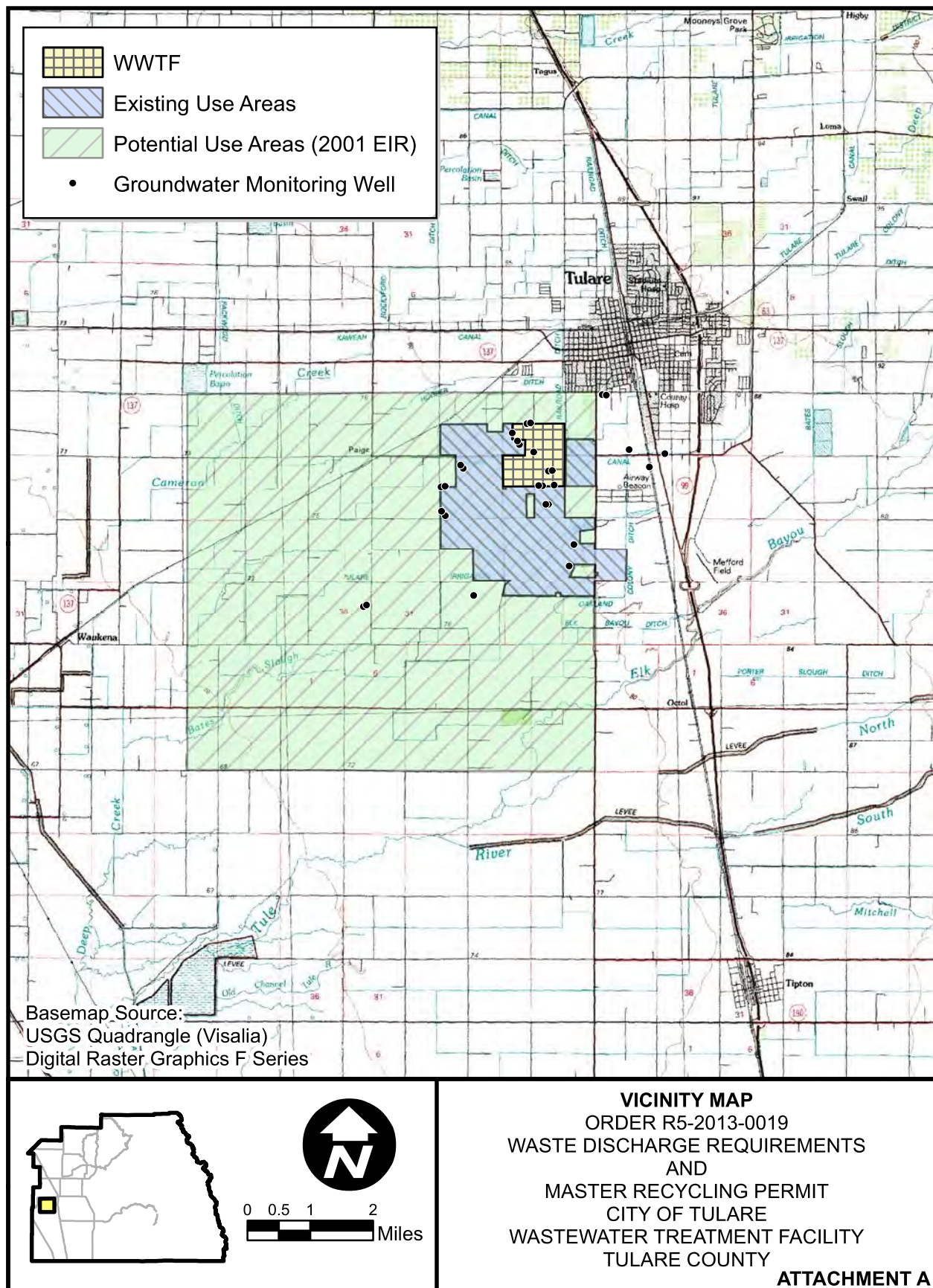
Section 13267 of the Water Code authorizes the Central Valley Water Board to require the Discharger to submit monitoring and technical reports as necessary to investigate the impact of a waste discharge on waters of the State. In recent years, there has been an increased emphasis on obtaining all necessary information, assuring the information is timely as well as representative and accurate, and thereby improving dischargers' accountability for meeting the conditions of discharge. Section 13268 of the Water Code authorizes assessment of administrative civil when appropriate.

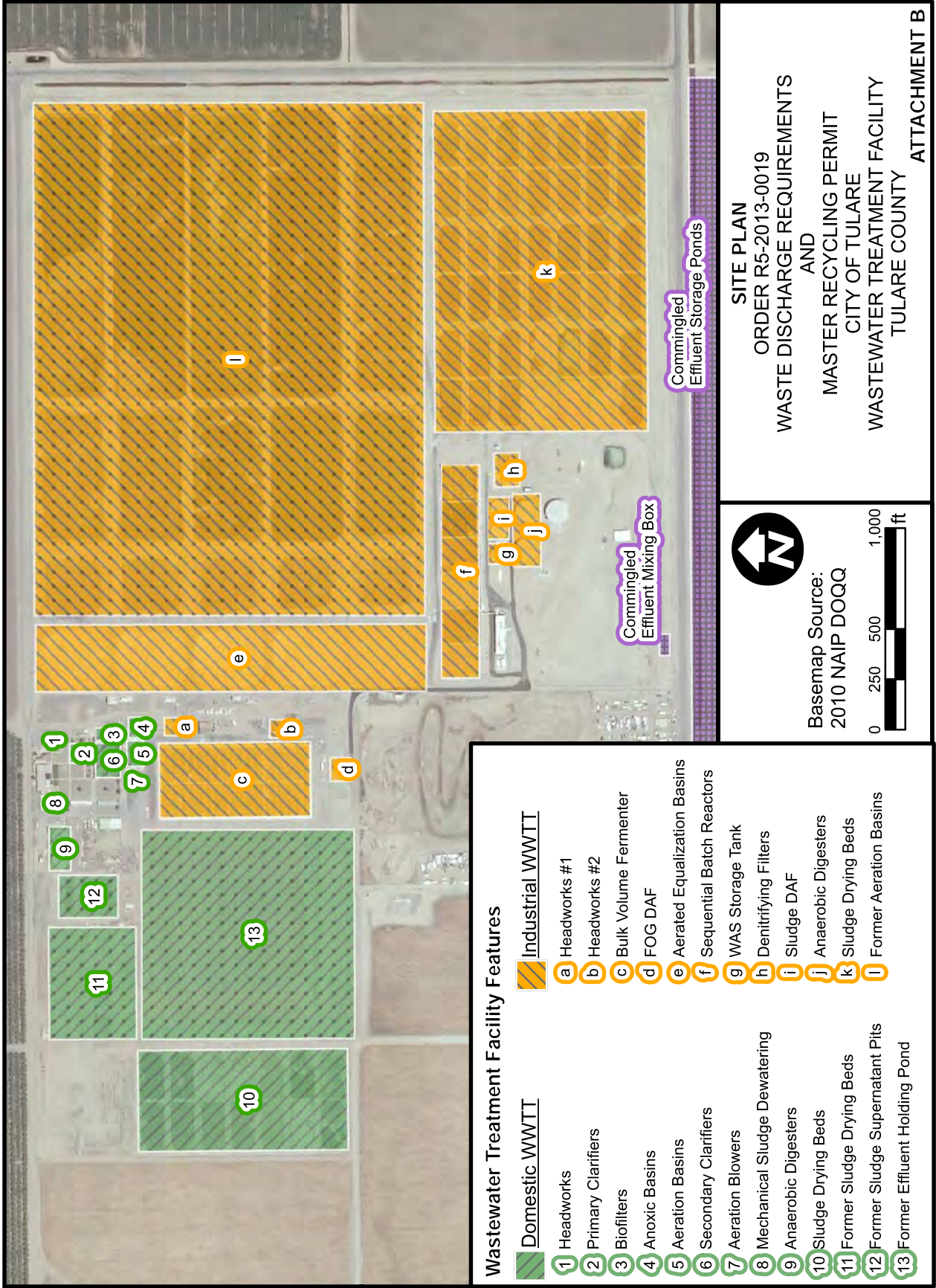
The proposed Order includes influent and effluent monitoring requirements, Fermenter monitoring (primarily to document the source and effects of aqueous ammonia addition at the WWTF), pond monitoring, source water monitoring, sludge monitoring, Use Area monitoring, and groundwater monitoring. This monitoring is necessary to characterize the discharge, evaluate compliance with effluent limitations prescribed by the Order, and evaluate groundwater quality and the extent of degradation caused by the discharge.

As described in the proposed Order and earlier in this Information Sheet, the existing groundwater monitoring well network is inadequate because no functional wells monitor first-encountered groundwater downgradient of sludge drying beds or most Use Areas, and the single upgradient well is insufficient for the large discharge area. Provision I.20, which requires the City to prepare and implement a work plan for construction of additional wells, is intended to provide data necessary to evaluate groundwater quality and the extent of degradation caused by the discharge. Central Valley Water Board staff will work with the City to identify groundwater monitoring needs to minimize costs, which will bear a reasonable relationship to the need for groundwater monitoring reports (Wat. Code, § 13267.).

Reopener

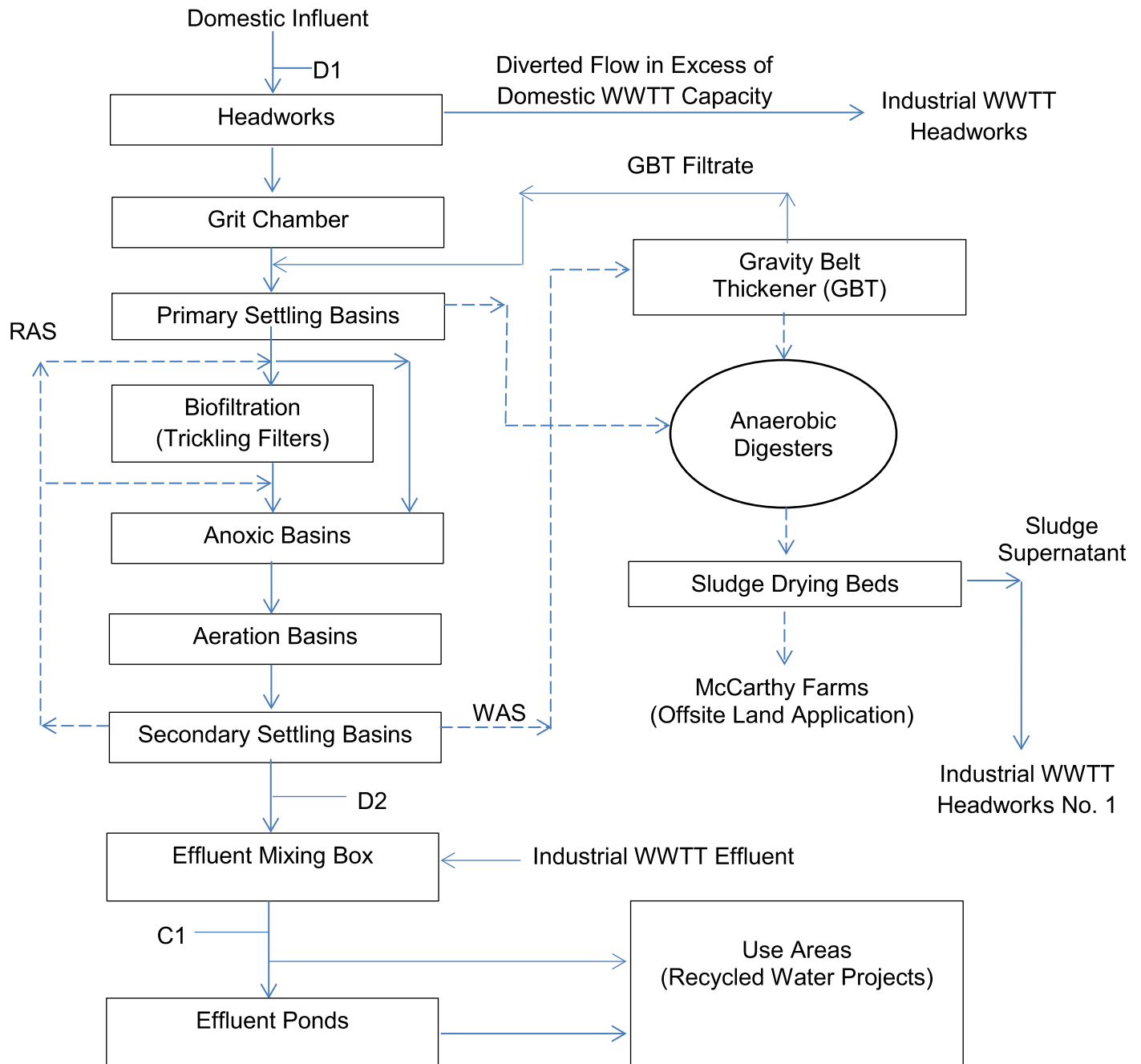
The conditions of discharge in the proposed Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. It may be appropriate to reopen the Order if new technical information is received or if applicable laws and regulations change.





SITE PLAN

ORDER R5-2013-0019
WASTE DISCHARGE REQUIREMENTS
AND
MASTER RECYCLING PERMIT
CITY OF TULARE
WASTEWATER TREATMENT FACILITY
TULARE COUNTY



NOT TO SCALE

Symbol



Description

Wastewater
Sludge

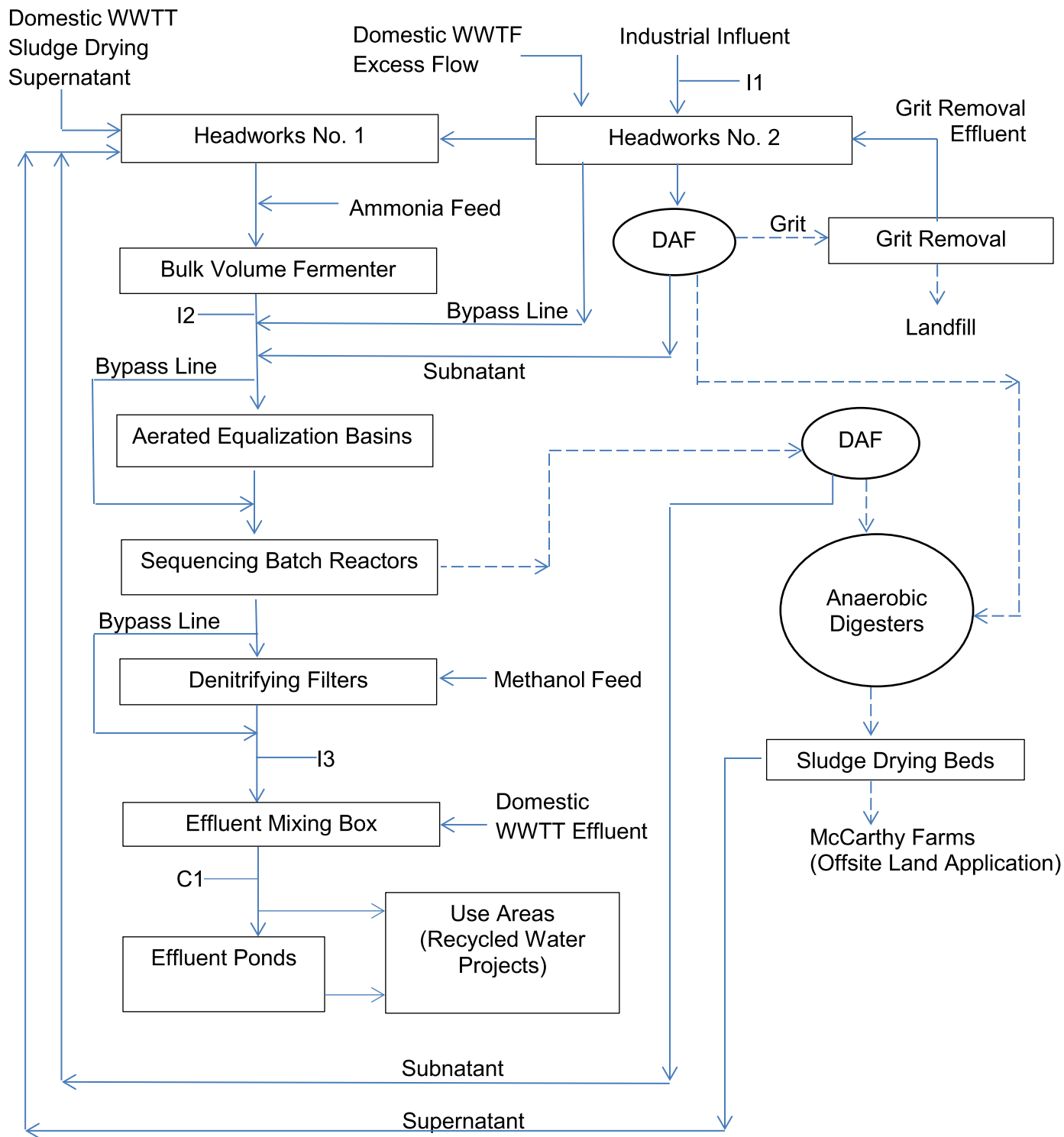
Sampling Points

D1 Domestic Influent
D2 Domestic Effluent
C1 Commingled Effluent



**PROCESS FLOW DIAGRAM
DOMESTIC PLANT**

ORDER R5-2013-0019
WASTE DISCHARGE REQUIREMENTS
AND
MASTER RECYCLING PERMIT
FOR
CITY OF TULARE WWTF

ATTACHMENT C



NOT TO SCALE

<u>Symbol</u>	<u>Description</u>
	Wastewater
	Sludge
<u>Sampling Points</u>	
I1	Industrial Influent
I2	BVF Effluent
I3	Industrial Effluent
C1	Commingled Effluent

**PROCESS FLOW DIAGRAM
INDUSTRIAL PLANT**

ORDER R5-2013-0019
WASTE DISCHARGE REQUIREMENTS
AND
MASTER RECYCLING PERMIT
FOR
CITY OF TULARE WWTf

ATTACHMENT E

ORDER R5-2013-0019

WASTE DISCHARGE REQUIREMENTS AND MASTER RECYCLING PERMIT CITY OF TULARE WASTEWATER TREATMENT FACILITY TULARE COUNTY

RULES AND REGULATIONS FOR RECYCLED WATER USE PROJECTS

Pursuant to California Water Code (Water Code) section 13523.1 (b)(3), this Order requires the City of Tulare to establish and to enforce rules and regulations governing the design, construction and use of recycled water distribution and disposal systems by its customers. The rules and regulations shall be consistent with the following criteria:

- Health and Safety Code, Division 6, Part 1, Chapter 4, Article 1;
- Health and Safety Code, Division 104, Part 12, Chapter 4, Article 7;
- Health and Safety Code, Division 104, Part 12, Chapter 5, Article 2;
- Water Code, Division 7, Chapter 7;
- California Code of Regulations, Title 22, Division 4, Chapter 3;
- California Code of Regulations, Title 17, Division 1, Chapter 5, Group 4, Articles 1 & 2;
- and
- Any measures that are deemed necessary for protection of public health, such as guidelines from the California Department of Public Health and from agencies like the American Water Works Association.

At a minimum, the City shall implement rules and regulations requiring, and notify recycled water users that:

1. The use of recycled water shall not cause pollution, contamination, or nuisance, as defined by section 13050 of the Water Code.
2. **Prior to commencing irrigation with recycled water** on any Use Area not described in this Order, the City shall submit documentation that the California Department of Public Health has approved a Title 22 engineering report for the project and documentation of compliance with the California Environmental Quality Act (CEQA).
3. If, in the opinion of the Executive Officer, reclamation at a proposed new use site cannot be adequately regulated under the Master Recycling Permit, a Report of Waste Discharge may be requested and individual Water Recycling Requirements may be adopted.
4. **At least 30 days prior** to conveying recycled water to any Use Area not described in this Order, the Discharger shall submit a User Report to the Central Valley Water Board and the California Department of Public Health. The User Report shall include the following:
 - a. The site location including a map showing the specific boundaries of the use site and the County Assessor's Parcel Number(s) (if appropriate, if Parcel Number(s) are not appropriate to accurately describe the site location, the Discharger shall provide the

Central Valley Water Board with enough information for the Central Valley Water Board to accurately determine the location of the proposed reclamation activities);

- b. The name of the Use Area property owner and contact information;
 - c. The name of the User and contact information;
 - d. The specific use to be made of the recycled water, the Use Area acreage, the type of vegetation/crops to which the recycled water will be applied, and the anticipated volume of recycled water to be used;
 - e. Identification of the on-site supervisor who is responsible for operation of the recycled water system;
 - f. Description of the recycled water management facilities and operations plan;
 - g. Plans and specifications that include the following:
 - i. Pipe locations of the recycled, potable, and auxiliary non-potable water systems;
 - ii. Type and location of the outlets and plumbing fixtures that will be accessible to the public;
 - iii. The methods and devices to be used to prevent backflow of recycled water into the public water system; and
 - iv. Plan notes relating to recycled water specific installation and use requirements.
 - h. Certification that the new Use Area conforms to the Discharger's rules and regulations;
 - i. A copy of the signed User Agreement; and
 - j. The results of the cross-connection control test performed in accordance with the American Water Works Association and California Department of Public Health guidelines (Cal. Code Regs., tit. 17, § 7605). The results shall include a certification that the California Department of Public Health was notified of the initial cross-connection control test and was provided an opportunity to be present.
5. **Prior to commencing irrigation with recycled water** on any Use Area not described in this Order, the City shall submit documentation that the California Department of Public Health has approved a Title 22 engineering report for the project and documentation of compliance with CEQA. The Title 22 engineering report shall be consistent with the Department of Public Health guidance document entitled, *Preparation of an Engineering Report for the Production, Distribution and Use of Recycled Water*.
6. In the event of any change in control or ownership of land or waste treatment and storage facilities presently owned or controlled by the Discharger, the Discharger shall notify the

succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Central Valley Water Board.

7. No person other than the City shall deliver recycled water to a Use Area.
8. The City may terminate service to a User who uses, transports, or stores such water in violation of the City's rules and regulations.
9. The Central Valley Water Board may initiate enforcement action against any recycled water user, including but not limited to the termination of the recycled water supply, who:
 - a. Discharges recycled water in violation of any applicable discharge requirement prescribed by the Central Valley Water Board or in a manner which creates or threatens to create conditions of pollution, contamination, or nuisance, as defined in Water Code section 13050.
 - b. Uses, transports, or stores such water in violation of the rules and regulations governing the design, construction and use of recycled water distribution and disposal systems issued by the recycled water distribution and disposal systems issued by the City in accordance with this attachment; or in a manner which creates or threatens to create conditions of pollution, contamination, or nuisance, as defined in Water Code section 13050.
10. All recycled water storage facilities shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24-hour frequency storm to the extent practicable unless the Central Valley Water Board Executive Officer approves relaxed storm protection measures for the facility.
11. The recycled water shall be at least undisinfected secondary recycled water as defined by Title 22, section 60301.
12. Recycled water shall be used in compliance with Title 22, section 60304. Regarding particular agricultural uses, recycled water shall be applied in compliance with the following:
 - a. Undisinfected recycled water shall not be discharged to orchard or vineyard crops;
 - b. No recycled water used for irrigation, or soil that has been irrigated with recycled water, shall come into contact with the edible portion of food crops that may be eaten raw by humans;
 - c. Non food-bearing trees, seed crops not eaten by humans, food crops that must undergo commercial pathogen-destroying processing before being consumed by humans, and ornamental nursery stock and sod farms (provided no irrigation with recycled water occurs for a period of 14 days prior to harvesting, retail sale, or allowing access by the general public) may be irrigated with recycled water; and
 - d. Grazing of milking animals within the Use Areas is prohibited.

13. Irrigation of the Use Areas shall occur only when appropriately trained personnel are on duty.
14. Irrigation with recycled water shall not be performed within 24 hours of a forecasted storm, during or within 24 hours after any precipitation event, nor when the ground is saturated.
15. The Use Area parcels shall be graded to prevent ponding along public roads or other public areas and prevent runoff onto adjacent properties.
16. The Use Areas shall be managed to prevent breeding of mosquitoes. In particular:
17. There shall be no standing water 48 hours after irrigation ceases;
18. Tailwater ditches shall be maintained essentially free of emergent, marginal, and floating vegetation; and
19. Low-pressure and unpressurized pipelines and ditches accessible to mosquitoes shall not be used to store recycled water.
20. Tailwater runoff and spray of recycled water shall not be discharged outside of the use areas except in minor, incidental amounts that cannot reasonably be eliminated by implementation and good maintenance of best management practices.
21. Recycled water spray, mist, or runoff shall not enter dwellings, designated outdoor eating areas, or food handling facilities. Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff.
22. Use Areas and recycled water impoundments shall be designed, maintained, and operated to comply with the following setback requirements:

<u>Setback Definition</u>	<u>Minimum Irrigation Setback (feet)</u>
Edge of Use Area to property boundary	25
Edge of Use Area to public road right of way	30
Edge of Use Area to manmade or natural surface water drainage course ¹	50
Edge of Use Area to domestic water supply well	150
Toe of recycled water impoundment berm to domestic water supply well	150

¹ Excluding ditches used exclusively for tailwater return from the land application area and land application areas separated by levees or other permanent physical barriers from surface waters or drainage courses.

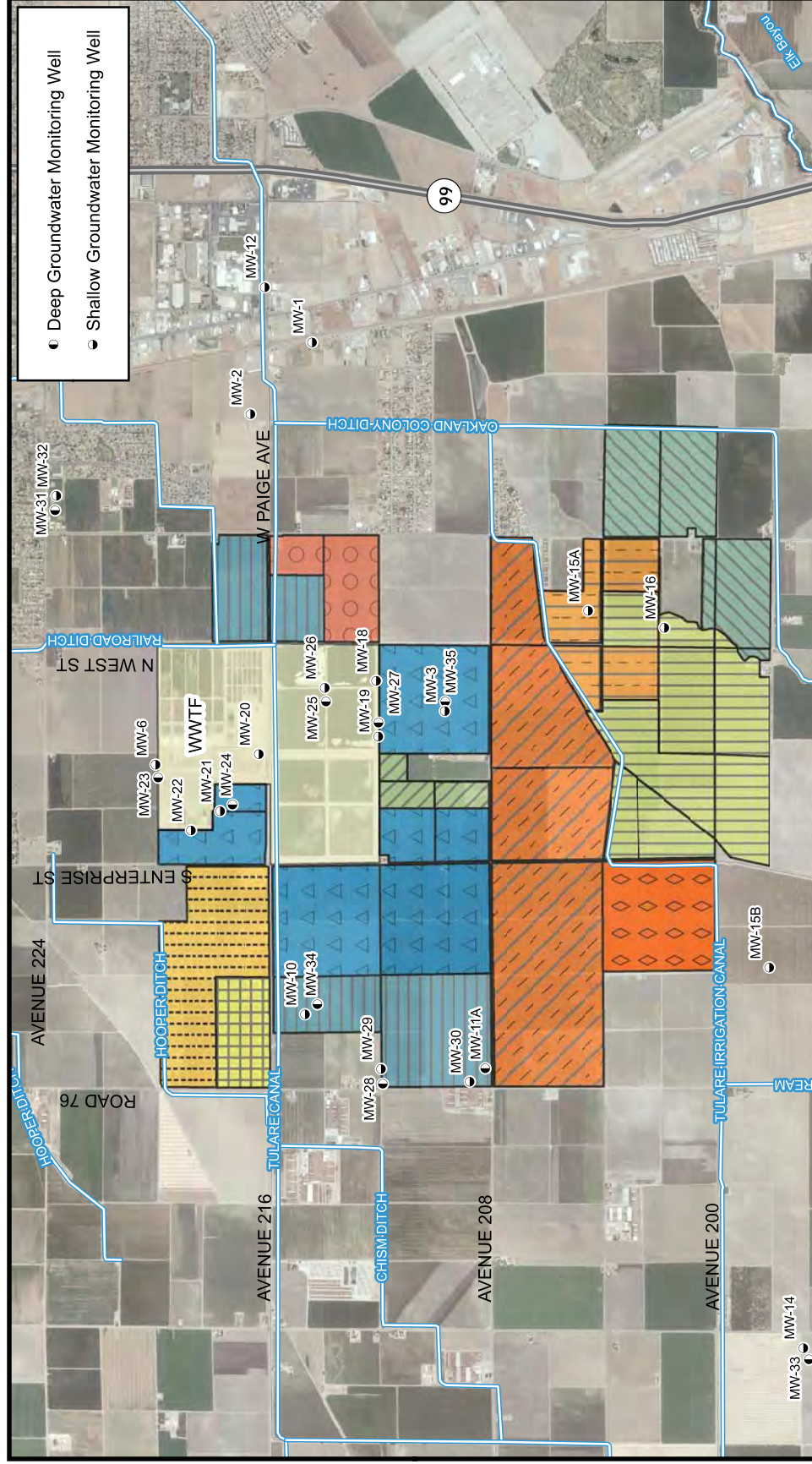
23. Tailwater runoff and spray of recycled water shall not be discharged outside of the use areas except in minor, incidental amounts that cannot reasonably be eliminated by implementation and good maintenance of best management practices.

24. There shall be at least a ten-foot horizontal and a one-foot vertical separation between all pipelines transporting recycled water and those transporting domestic supply, and the domestic supply pipeline shall be located above the recycled water pipeline.
25. A public water supply or auxiliary water supply shall not be used as backup or supplemental source of water for a recycled water system unless the connection between the two systems is protected by a backflow preventer (e.g., an air gap separation) which complies with the requirements of California Code of Regulations, title 17, sections 7601 through 7604.
26. Any backflow prevention device installed to protect a public water system shall be inspected and maintained in accordance with Title 17, section 7605. The recycled water system shall be tested for possible cross connections at least once every four years. The inspections and the testing shall be performed by a cross connection control specialist certified by the California-Nevada section of the American Water Works Association or an organization with equivalent certification requirements.
27. All recycling equipment, pumps, piping, valves, and outlets shall be marked to differentiate them from potable water facilities. All recycled water piping (above and below ground) and appurtenances in new installations and in retrofit installations shall be colored purple or distinctively wrapped with purple tape in accordance with California Health and Safety Code section 116815.
28. Recycled water controllers, valves, and similar appurtenances shall be affixed with recycled water warning signs, and shall be equipped with removable handles or locking mechanisms to prevent public access or tampering.
29. Quick couplers, if used, shall be different than those used in potable water systems.
30. Hose bibs and unlocked valves, if used, shall not be used in areas accessible to the public.
31. Public contact with recycled water shall be controlled using fences, signs, and/or other appropriate means. Signs of a size no less than four inches high by eight inches wide with proper wording (shown below) shall be placed at all areas of public access and around the perimeter of all areas used for effluent disposal or conveyance to alert the public of the use of recycled water. The size and content of these signs shall be as described in section 60310(g) of Title 22. All signs shall display an international symbol similar to that shown in Attachment G, which is attached hereto and a part of this Order, and present the following wording:

“RECYCLED WATER – DO NOT DRINK”
“AGUA DE DESPERDICIO RECLAMADA – NO TOME”

32. Public contact with recycled water shall be controlled using fences, signs, and/or other appropriate means. Signs of a size no less than four inches high by eight inches wide with proper wording (shown below) shall be placed at all areas of public access and around the perimeter of all areas used for effluent disposal or conveyance to alert the public of the use of recycled water. The size and content of these signs shall be as described in section 60310(g) of Title 22. All signs shall display an international symbol similar to that shown in Attachment G, which is attached hereto and a part of this Order, and present the following wording:

33. Workers shall be educated regarding proper hygienic procedures to ensure personal and public safety.
34. The annual nutrient loading of the Use Area, including the nutritive value of organic and chemical fertilizers and recycled water, shall not exceed crop demand.
35. Hydraulic and nutrient loading of recycled water and supplemental irrigation water shall be at reasonable agronomic rates designed to :
 - a. Maximize crop nutrient uptake;
 - b. Maximize breakdown of organic waste constituents in the root zone;
 - c. Minimize the percolation of waste constituents; and
 - d. Minimize erosion within the Use Areas.
36. The City of Tulare, the Central Valley Regional Water Quality Control Board (Central Valley Water Board), the California Department of Public Health, or an authorized representative of these parties, upon presentation of proper credentials, shall have the right to enter upon the recycled water use site during reasonable hours, to verify that the user of recycled water is complying with the City's rules and regulations.
37. Use Areas shall be inspected as frequently as necessary to ensure continuous compliance with the requirements of this Order.
38. A copy of the User Agreement and the Discharger's rules and regulations governing the distribution and use of recycled water shall be maintained at the User's facilities and be available at all times for inspection by Central Valley Water Board staff, the Discharger, and Department of Public Health staff.



RECYCLED WATER USE AREA MAP

ORDER R5-2013-0019

WASTE DISCHARGE REQUIREMENTS

AND

MASTER RECYCLING PERMIT

CITY OF TULARE

WASTEWATER TREATMENT FACILITY

TULARE COUNTY

ATTACHMENT F

Basemap Source:
2010 NAIP DOQQ

Existing Use Areas

	City of Tulare		Mello-Martin
	Eddy		Patricia Colson
	Clarklind Farms		Wilbur
	Colson		Hillman
	De Azevedo		Lopes



INTERNATIONAL SYMBOL FOR NONPOTABLE WATER

ORDER R5-2013-0019
WASTE DISCHARGE REQUIREMENTS
AND
MASTER RECYCLING PERMIT
CITY OF TULARE
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

ATTACHMENT G

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. 86-108

WASTE DISCHARGE REQUIREMENTS
FOR
WOODVILLE PUBLIC UTILITIES DISTRICT
TULARE COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) finds that:

1. The Board, on 10 January 1969, adopted Resolution No. 69-161 which prescribed requirements for a discharge from Woodville Public Utilities District (hereafter Discharger) to land.
2. Present waste discharge requirements established by Resolution No. 69-161 are neither adequate nor consistent with plans and policies of the Board.
3. The Discharger discharges 0.33 million gallons per day from an aeration basin to evaporation/percolation ponds.
4. The treatment and disposal facility is in Section 19, T21S, R26E, MDB&M, on the Valley floor several miles from the nearest surface water.
5. The beneficial uses of the ground water are municipal, industrial, and agricultural supply.
6. The Board, on 25 July 1975, adopted a Water Quality Control Plan for the Tulare Lake Basin (5D) which contains water quality objectives. These requirements are consistent with that Plan.
7. The action to update waste discharge requirements for this facility is exempt from the provisions of the California Environmental Quality Act, in accordance with Section 15301, Title 14, California Administrative Code.
8. The Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge.
9. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Resolution No. 69-161 be rescinded and Woodville Public Utilities District, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. Discharge Prohibitions:

1. The direct discharge of wastes to surface waters or surface water drainage courses is prohibited.

WASTE DISCHARGE REQUIREMENTS
WOODVILLE PUBLIC UTILITIES DISTRICT
TULARE COUNTY

-2-

2. The by-pass or overflow of untreated or partially treated waste is prohibited.

B. Discharge Specifications:

1. Neither the treatment nor the discharge shall cause a pollution or nuisance as defined by the California Water Code, Section 13050.
2. The discharge shall not cause degradation of any water supply.
3. The discharge shall remain within the designated disposal area at all times.
4. The 30-day average daily dry weather discharge flow shall not exceed 0.33 million gallons.
5. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer.
6. Reclaimed wastewater shall meet the criteria contained in Title 22, Division 4, California Administrative Code (Section 60301, et seq.).
7. The dissolved oxygen content of holding ponds shall not be less than 1.0 mg/l for 16 hours in any 24-hour period.
8. The specific electrical conductivity (EC) of the discharge shall not exceed the average EC of the source water plus 500 micromhos/cm.

C. Provisions:


1. The Discharger may be required to submit technical reports as directed by the Executive Officer.
2. The Discharger shall comply with the attached Monitoring and Reporting Program No. 86-108.
3. The Discharger shall comply with the Standard Provisions and Reporting Requirements, dated 1 September 1985, which are a part of this Order.
4. The Discharger shall report promptly to the Board any material change or proposed change in the character, locations, or volume of the discharge.
5. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this office.

WASTE DISCHARGE REQUIREMENTS
WOODVILLE PUBLIC UTILITIES DISTRICT
TULARE COUNTY

-3-

6. The Board will review this Order periodically and may revise requirements when necessary.

I, WILLIAM H. CROOKS, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 30 May 1986.


WILLIAM H. CROOKS, Executive Officer

CCC:bro:4/21/86

Attachments

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 86-108

FOR
WOODVILLE PUBLIC UTILITIES DISTRICT
TULARE COUNTY

MONITORING

The following shall constitute the monitoring program:

<u>Constituent</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Total Daily Flow	gpd	Estimate	Daily
Specific Electrical Conductance	micromhos/cm	Grab	Monthly
Dissolved Oxygen ^{2/}	mg/l	Grab	Monthly ^{1/}

1/ Effluent shall be sampled monthly and source water annually.

2/ Sample to be collected from opposite the inlet of each pond between the hours of 0800 and 0900.

REPORTING

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly the compliance with waste discharge requirements.

Monthly monitoring reports shall be submitted to the Regional Board by the 15th day of the following month.

Ordered by


WILLIAM H. CROOKS, Executive Officer

CCC:bro

4/21/86

30 May 1986
(Date)

INFORMATION SHEET

WOODVILLE PUBLIC UTILITIES DISTRICT TULARE COUNTY

The Woodville Public Utilities District provides water and sewage services to the community of Woodville which is about 10 miles west of Porterville in Section 19, T21S, R26E, MDB&M.

The District operates an extended aeration activated sludge treatment plant. Domestic sewage flows via gravity to a newly constructed headworks which consists of two lift pumps that pump the sewage to an aeration basin. The aeration basin is divided into two cells each fitted with a floating aerator suspended in the middle of the cell by cables. The aerators operate alternately on a 15 minute cycle. Activated sludge is recycled through the basin at about 100 gpm. The facility treats approximately 0.25 to 0.33 million gallons per day of domestic wastes. There are no industrial hookups to the system. Sludge from the basin is wasted about two times a year and disposed of on the 40-acre site owned by the District.

The effluent from the aeration basin flows to one of two percolation/evaporation ponds. The District uses one pond each year while the other pond is drying. Once the pond dries it is cleaned out and the bottom ripped to about 18 inches.

The facility is regulated by Resolution No. 69-161 which does not reflect the current policies of the Board.

Ground water quality in the area is considered good with an electrical conductivity of about 400 micromhos/cm. Depth to unconfined ground water is about 65 feet.

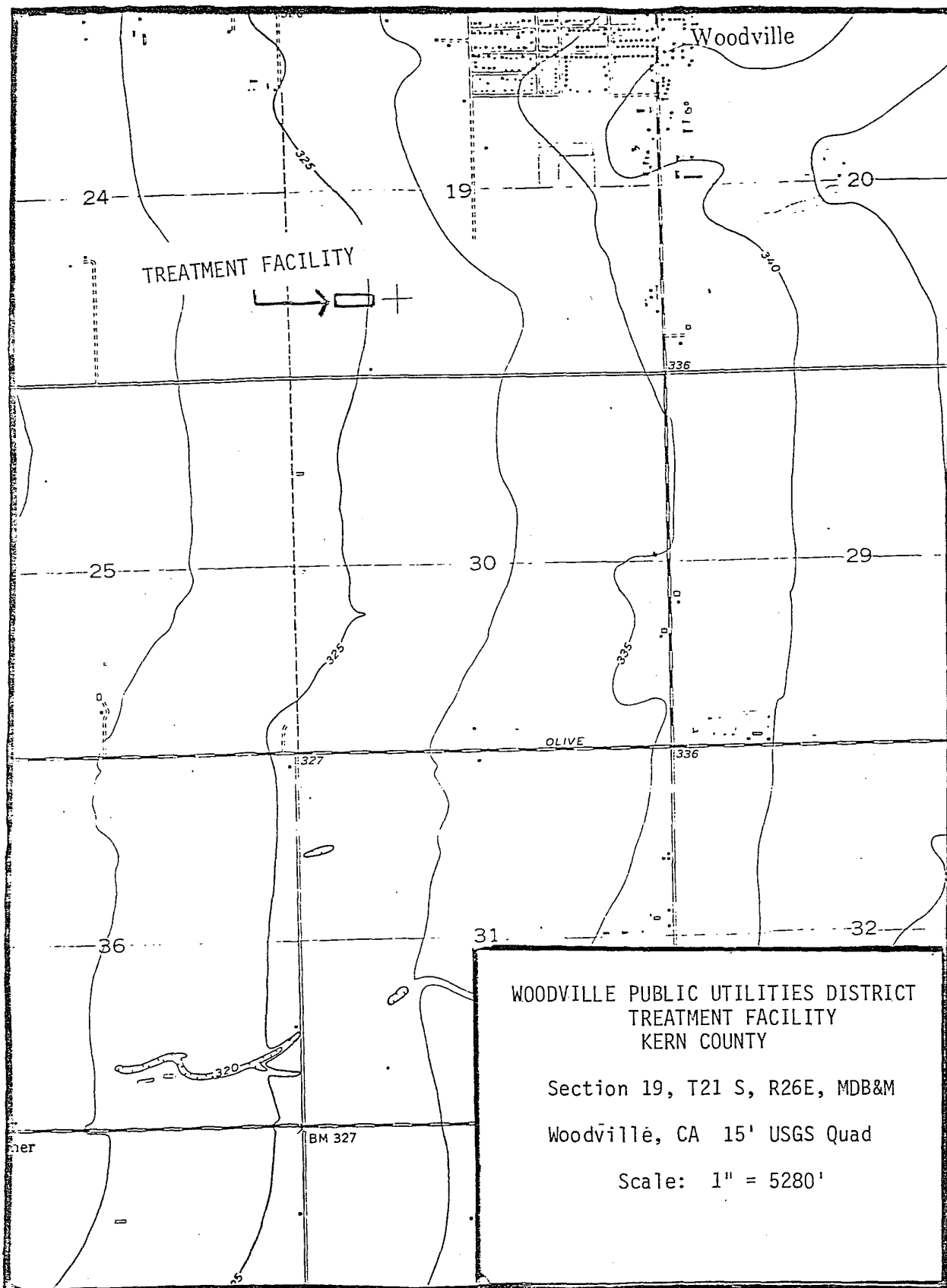
The facility is on the San Joaquin Valley floor several miles from the nearest surface water.

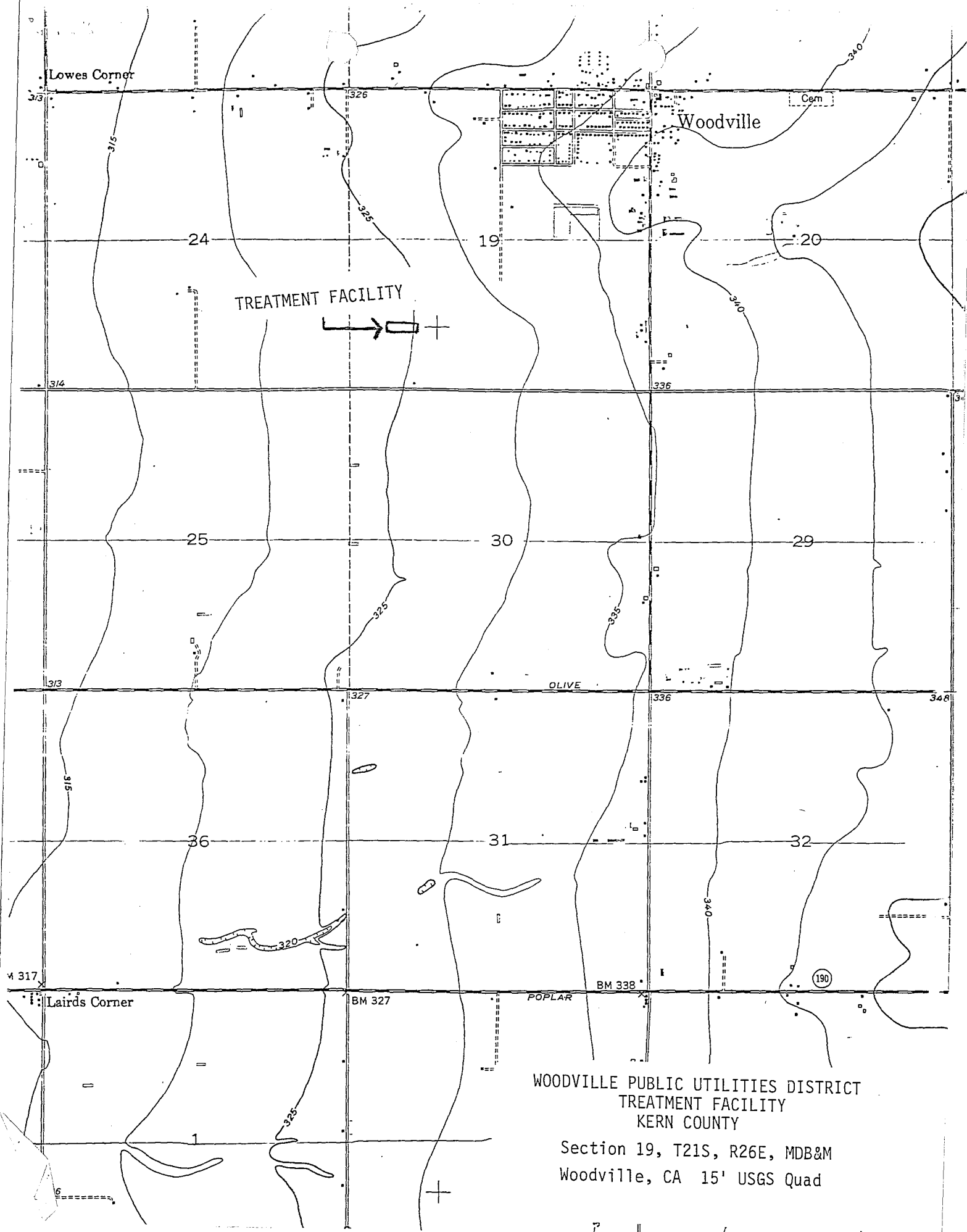
Soil in the area consists of Madera loam overlying hardpan which restricts surface penetration and subsoil drainage. Rainfall is about 10 inches annually, pan evaporation rates have been reported to be around 60 inches per year.

The action to adopt waste discharge requirements for this existing facility is exempt from the provisions of the California Environmental Quality Act, in accordance with Section 15301, Title 14, California Administrative Code.

CCC:bro

4/21/86





WOODVILLE PUBLIC UTILITIES DISTRICT
TREATMENT FACILITY
KERN COUNTY

Section 19, T21S, R26E, MDB&M
Woodville, CA 15' USGS Quad

Appendix H

Alternative No. 1 Engineer's Opinion of Probable Construction Cost

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST
PRELIMINARY

MATHENY TRACT WASTEWATER STUDY
ALTERNATIVE NO. 1
ONSITE SEPTIC SYSTEMS WITH MAINTENANCE DISTRICT

2/4/2016

ITEM NO.	QTY	BID ITEM DESCRIPTION	UNIT PRICE	SUBTOTAL
1	1	Mobilization, Demobilization, Bonds and Insurance	\$55,000 / LS	\$55,000
2	1	Fugitive Dust Control	\$11,000 / LS	\$11,000
3	1	Worker Protection	\$22,000 / LS	\$22,000
4	1	Prepare & Implement SWPPP	\$26,500 / LS	\$26,500
5	298	Construct New Septic Systems	\$42,500 / EA	\$12,665,000
6	298	Abandon Existing Septic Systems	\$4,200 / EA	\$1,251,600
7	14,900	4" Service Line From House to New Tank	\$55 / LF	\$819,500
8	1	Miscellaneous Facilities & Operations	\$50,000 / LS	\$50,000
9	1	Permitting	\$15,000 / LS	\$15,000
		Subtotal		\$14,915,600
		Contingency - 20%		\$2,983,120
		Engineering and Construction Observation - 10%		\$1,491,560
		Total Project Cost		\$19,390,280
		Present Worth of O&M Costs (\$263,300 per year for 20 years at 3% interest)		\$3,917,239
TOTAL PROJECT COST + PRESENT WORTH COSTS				\$23,307,519

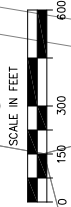
Notes:

O&M Costs are comprised of \$300 Septic Tank Pumping cost per house every three years (\$300/3*298=\$29,800 annual cost), \$750 Annual Inspection and testing cost per house every year (\$750*298=\$223,500 annual cost), and \$10,000 annual general maintenance cost.

Total Annual Cost	\$263,300
Monthly Cost per Customer (298)	\$74

Appendix I

Alternative No.2 Preliminary Layout



SCALE IN FEET

1 OF 1
SHEET
REDUCED OR ENLARGED PLANS
INCHES. ADJUST SCALE FOR
ORIGINAL SCALE SHOWN IS IN
JOB NO: 13991401
DATE: 06/11/2015
HEB
ELV
CHECKED BY:
ELV
DRAFTED BY:
73.075
LICENSE NO:
HEATHER E. BASHIAN
DESIGN ENGINEER:

MATHENY SEWER SYSTEM PROJECT
SEWER SYSTEM NETWORK
COUNTY OF TULARE

Appendix J

Alternative No.2 Engineer's Opinion of Probable Construction Cost

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST
PRELIMINARY

MATHENY TRACT WASTEWATER STUDY
ALTERNATIVE NO. 2
WASTEWATER COLLECTION SYSTEM AND
CONSOLIDATION WITH CITY OF TULARE

2/4/2016

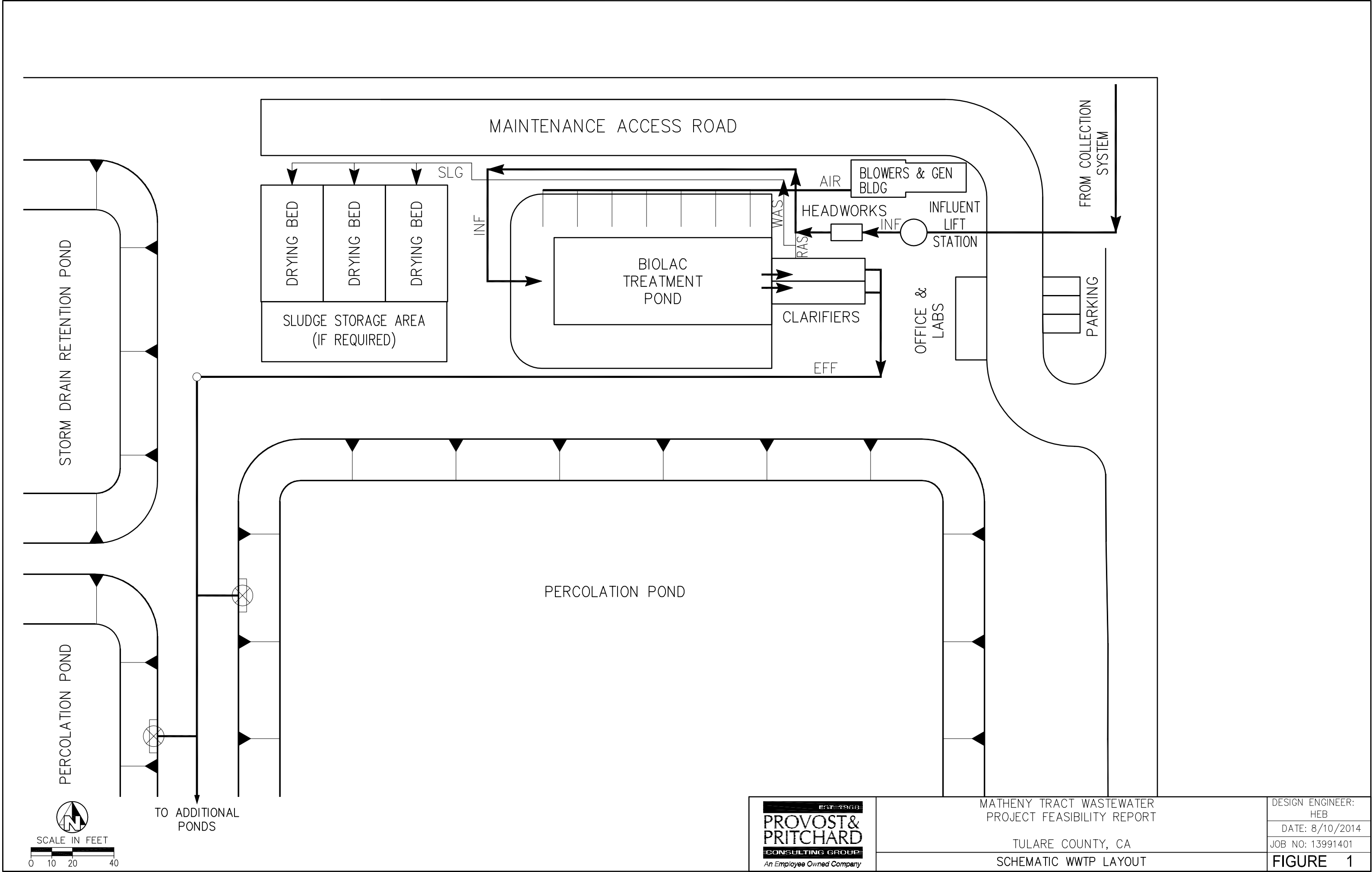
ITEM NO.	QTY	BID ITEM DESCRIPTION	UNIT PRICE	SUBTOTAL
Collection System				
1	1	Mobilization, Demobilization, Bonds and Insurance	\$160,000 / LS	\$160,000
2	1	Traffic Control	\$60,000 / LS	\$60,000
3	1	Fugitive Dust Control	\$10,000 / LS	\$10,000
4	1	Worker Protection	\$21,500 / LS	\$21,500
5	1	Prepare and Implement SWPPP	\$26,500 / LS	\$26,500
6	22,000	8-Inch PVC Sewer Main	\$53 / LF	\$1,166,000
7	1,010	10-Inch PVC Sewer Main	\$64 / LF	\$64,640
8	270	Bore & Jack 8" Carrier Pipe w/16" Casing	\$690 / LF	\$186,300
9	1	Lift Station	\$400,000 / EA	\$400,000
10	292	4" Sewer Service	\$4,200 / EA	\$1,226,400
11	6	6" Sewer Service	\$5,300 / EA	\$31,800
12	298	Abandon Existing Septic Systems	\$4,250 / LF	\$1,266,500
13	1	Permitting	\$15,000 / LS	\$15,000
14	23,010	Temporary Trench Resurfacing (Mains)	\$6.50 / LF	\$149,565
15	23,010	Permanent Trench Resurfacing (Mains)	\$32 / LF	\$736,320
16	298	Temporary Trench Resurfacing (Services)	\$31 / EA	\$9,238
17	298	Permanent Trench Resurfacing (Services)	\$31 / EA	\$9,238
		Subtotal Collection System		\$5,539,001
Connection to City of Tulare System				
18	2,810	12-Inch PVC Sewer Main	\$85 / LF	\$238,850
19	120	Bore & Jack 12" Carrier Pipe w/24" Casing	\$700 / LF	\$84,000
20	298	Capacity & Connection Fees	\$5,300 / LF	\$1,579,400
21	1	Permitting	\$2,650 / LS	\$2,650
22	2,810	Temporary Trench Resurfacing (Mains)	\$6.50 / LF	\$18,265
23	2,810	Permanent Trench Resurfacing (Mains)	\$31 / LF	\$87,110
		Subtotal Connection to City of Tulare		\$2,010,275
		Subtotal		\$7,549,276
		Contingency - 20%		\$1,509,855
		Engineering & Construction Observation - 10%		\$754,928
		Total Project Cost		\$9,814,059
		Present Worth of O&M Costs (\$150,200 per year for 20 years at 3% interest)		\$2,234,478
TOTAL PROJECT COST + PRESENT WORTH COSTS				\$12,048,537

Monthly Cost per Customer (298)

\$42

Appendix K

Alternative No. 3 Example Layout



Appendix L

Alternative No. 3 Engineer's Opinion of Probable Construction Cost

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST

PRELIMINARY

MATHENY TRACT WASTEWATER STUDY ALTERNATIVE NO. 3 WASTEWATER COLLECTION SYSTEM AND LOCAL WASTEWATER TREATMENT PLANT

2/4/2016

ITEM NO.	QTY	BID ITEM DESCRIPTION	UNIT PRICE	SUBTOTAL
Collection System				
1	1	Mobilization, Demobilization, Bonds and Insurance	\$160,000 / LS	\$160,000
2	1	Traffic Control	\$60,000 / LS	\$60,000
3	1	Fugitive Dust Control	\$10,000 / LS	\$10,000
4	1	Worker Protection	\$21,500 / LS	\$21,500
5	1	Prepare and Implement SWPPP	\$26,500 / LS	\$26,500
6	22,000	8-Inch PVC Sewer Main	\$53 / LF	\$1,166,000
7	1,010	10-Inch PVC Sewer Main	\$64 / LF	\$64,640
8	270	Bore & Jack 8" Carrier Pipe and 16" Casing	\$690 / LF	\$186,300
9	1	Lift Station	\$400,000 / EA	\$400,000
10	292	4" Sewer Service	\$4,200 / EA	\$1,226,400
11	6	6" Sewer Service	\$5,300 / EA	\$31,800
12	298	Abandon Existing Septic Systems	\$4,250 / LF	\$1,266,500
13	1	Permitting	\$15,000 / LS	\$15,000
14	23,010	Temporary Trench Resurfacing (Mains)	\$6.50 / LF	\$149,565
15	23,010	Permanent Trench Resurfacing (Mains)	\$32 / LF	\$736,320
16	298	Temporary Trench Resurfacing (Services)	\$31 / EA	\$9,238
17	298	Permanent Trench Resurfacing (Services)	\$31 / EA	\$9,238
		Subtotal Collection System		\$5,539,001
Treatment & Disposal				
1	1	Mobilization, Demobilization, Bonds and Insurance	\$80,000 / LS	\$80,000
2	1	Traffic Control	\$5,500 / LS	\$5,500
3	1	Fugitive Dust Control	\$10,500 / LS	\$10,500
4	1	Worker Protection	\$21,500 / LS	\$21,500
5	1	Prepare and Implement SWPPP	\$10,500 / LS	\$10,500
6	1	Influent Lift Station & Meter	\$42,500 / LS	\$42,500
7	1	Headworks Screen & Grit Removal	\$21,500 / LS	\$21,500
8	1	Headworks Structure	\$37,000 / LS	\$37,000
9	1	Equipment Package (Biolac)	\$475,000 / LS	\$475,000
10	200	Aeration Basin Concrete	\$1,100 / CY	\$220,000
11	1,400	Aeration Basin Excavation	\$16 / DY	\$22,400
12	250	Clarifier Concrete	\$1,100 / CY	\$275,000

ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST
PRELIMINARY

MATHENY TRACT WASTEWATER STUDY
ALTERNATIVE NO. 3
WASTEWATER COLLECTION SYSTEM AND
LOCAL WASTEWATER TREATMENT PLANT

2/4/2016

13	480	Clarifier Excavation	\$16 / CY	\$7,680
14	1	Yard Piping	\$63,500 / LS	\$63,500
15	400	Blower & Generator Building	\$110 / SF	\$44,000
16	600	Office/Lab	\$265 / SF	\$159,000
17	1	Sludge Drying Beds	\$42,500 / LS	\$42,500
18	12,000	Site Grading and Finish	\$21 / SF	\$252,000
19	3	Groundwater Monitoring Wells	\$16,000 / EA	\$48,000
20	1	Electrical and Instrumentation	\$164,400 / LS	\$164,400
21	1	Backup Generator	\$80,000 / LS	\$80,000
22	64,500	Evaporation - Percolation Ponds	\$16 / CY	\$1,032,000
		Subtotal Treatment & Disposal		\$3,114,480
		Subtotal		\$8,653,481
		Contingency - 20%		\$1,730,696
		Engineering and Construction Observation - 15%		\$1,298,022
		Total Project Cost		\$11,682,199
		Present Worth of O&M Costs (\$460,031 per year for 20 years at 3% interest)		\$7,251,735
TOTAL PROJECT COST + PRESENT WORTH COSTS				\$18,933,934
Operations & Maintenance Costs				
	2	Operator	\$69,000 / EA	\$138,000
	0.5	Administrative Assistant	\$42,500 / EA	\$21,250
	2	Vehicle	\$9,000 / EA	\$18,000
	1	Chemicals	\$2,650 / LS	\$2,650
	1	Parts & Supplies	\$105,000 / LS	\$105,000
	1	Electricity (75 HP Connected, \$0.12/KWH)	\$122,531 / LS	\$122,531
	1	Contract Services	\$80,000 / LS	\$80,000
		Total Annual Cost		\$487,431
		Monthly Cost per Customer (298)		\$136

Appendix M

Community Outreach Materials



TO: Eric Coyne, MPA, Tulare County Economic Development Coordinator,
FROM: Merced C. Barrera, Policy Advocate, Leadership Counsel for Justice & Accountability
DATE: February 19, 2016
RE: Matheny Tract Wastewater System Project Feasibility Report

Matheny Tract Wastewater Feasibility Study Report

SECTION I.- Workshop

A. Date: Saturday February 6th, 2016

B. Time: 10am to 12pm

C. Location: Palo Verde Elementary (old cafeteria)

D. Attendees: 26 Total

There were 23 adult residents (two left early, but left their votes on their Fact Sheets), and 3 children. Additionally, Merced C. Barrera (Leadership Counsel), and Ashley Werner (Leadership Counsel) facilitated the presentation. **One resident refused to sign the sign-in sheet. Lastly, 19 homes were represented.

E. Polling outcome:

- Alternative #1= 0
- Alternative #2= 33 (workshop attendees and 2/5/16 polling by phone)
- Alternative #3= 0
- Alternative #4= 0

F. Outreach Done:

- 1/21/16- Initial Meeting with Matheny Tract Committee to set dates for event and outreach
- 2/2/16- Door knocking, flyering (250), and phone calls
- 2/4/16- Dropped off flyers with Palo Verde Elementary School (300)
- 2/4/16- Door knocking, flyering (150), and phone calls
- 2/5/16- Phone calls (Jose Herrera is property owner lives in LA. He wants sewer because he's having to pump often. He's address is 246 Wade, Tulare CA 93274 and 243 Magnolia, Woodlake, CA).



A Tides Center Project

**Also, Veronica Garibay and Phoebe Seaton called about 100 people on our comprehensive call list to let them know about the Feasibility Study Presentation. About 10 people on those calls expressed interest in a public wastewater system.

Additionally, Self Help completed a septic survey several years ago and found that 83% of the 146-people surveyed preferred a public wastewater system to septic systems:

“Q9.) Which would you prefer?

1. Public sewer system= 121, 83%
2. Septic tank system= 21, 14%
3. Don't know= 4, 3%

Total= 146, 100%”

G. Demographics of Attendees:

The attendees were very diverse from several racial backgrounds and at least 25% Spanish speakers. We conducted the meeting in Spanish and in English. We also made sure to translate comments given by residents.

H. The Quantitative Data (Poll):

All participants voted in favor of Alternative # 2, consolidation with the City of Tulare, as the preferred alternative. No residents voted in favor of Alternatives 1, 3, or 4 as the preferred alternative.

Community Comments

- Redundancy of Feasibility Study, because this has already been done.
 - One resident in particular was very upset that they have to go through this polling process again. She said that this polling had already been done in the past and that it is redundant to continue to have these types of meetings for wastewater because the County should already know from past polling that the community wants to consolidate wastewater with the City of Tulare.
- County Participation
 - The residents were also upset that Tulare County does not show up to these meetings. They would like for the County, including their elected representatives, to demonstrate their concern for the community by attending meetings concerning Matheny Tract such as this in the future, as well the SWRCB public hearing on March 3rd, 2016.



A Tides Center Project

- Residents stated that it makes sense to develop a waste water system in Matheny Tract to connect to City of Tulare waste water treatment plant, given the close proximity of that plant to the community.
- Residents agreed that Options 1, 3, and 4 were unaffordable and undesirable. Residents do not feel that setting up and maintaining a new CSD in Matheny for waste water system maintenance is feasible. They agreed that a long-term solution is needed for the dilapidated septic tank system currently relied on by the community.
- Possibility of Lawsuits and Delay
 - Some residents expressed concern about the resistance to consolidation shown by the City of Tulare and the possibility of future lawsuits regarding Matheny Tract connection to Tulare's wastewater system.
 - Ashley explain that LAFCO Resolution No. 10-015 provides that the City of Tulare will provide sewer service to Matheny Tract if and when sewer infrastructure is constructed within the community.
- If septic tanks are unsafe, why are they allowed?
 - We explained that there are new ordinances in place now that show that there is a move toward minimizing septic tank use in communities.
- Wastewater treatment plant is so close to neighborhood, what does this mean for the community?
- Where is the money, past grants awarded?
 - Some residents said that grants were previously awarded for work in Matheny Tract but they have seen no results from those grants. We explained that grants were awarded for the construction of the new water infrastructure in Matheny Tract and potable water service by the City of Tulare will be initiated following resolution pending resolution of the existing litigation and state action pursuant to SB 88.
- Disappointment by residents, long time coming. Residents don't want to continue to just talk about change and attend meetings; they want to see concrete changes in the community moving forward now.
- We explained how residents can stay involved in this process and other work occurring in Matheny Tract by attending Matheny Tract Committee's monthly meetings, the Tulare County Board of Supervisors meeting regarding the waste water feasibility study, and other upcoming events relating to Matheny Tract.

I. Additional Discussion Relating to Water in Matheny Tract:

- State involvement and media attention



A Tides Center Project

- Matheny Tract residents received notices from the State Water Resources Control Board (SWRCB) that they will be conducting a public hearing on March 3rd, 2016, 6:30pm. Some residents recommended: 1.) that the County show up, 2.) that media be contacted to be at this hearing, 3.) outreach to MT residents to have a good turnout, and if possible, 4.) make the hearing available through Skype for residents that cannot make it in person.
- Testing for Lead (Flint, MI)
 - Residents are afraid that, due to neglect by the County and the City of Tulare, Matheny Tract's water will get (or maybe already is) as bad as the contamination in Flint, Michigan; where the children in the city of Flint now have lead poisoning.
- Potable water case
 - Ashley gave an update on the potable water case against the City of Tulare. We stressed the difference between potable water and wastewater system.

SECTION II.- Matheny Tract Committee MEETING

A. Date: Thursday, February 18, 2016

B. Time: 6pm to 8pm

C. Location: 256 E Beacon Ave, Tulare, CA 93274

D. Attendees: 12 Matheny Tract Residents, 2 Leadership Counsel for Justice and Accountability employees

E. Polling outcome:

- Alternative #1= 0
- Alternative #2= 12
- Alternative #3= 0
- Alternative #4= 0

F. Outreach Done:

- 2/17/16- phone calls (74)
- 2/18/16- phone calls (54)

G. Demographics of Attendees:

Half of the attendees were Spanish speakers. We conducted the meeting in both, Spanish and in English. We also made sure to translate comments and questions given by residents.



A Tides Center Project

H. The Quantitative Data (Poll):

All participants voted in favor of Alternative # 2, consolidation with the City of Tulare, as the preferred alternative. No residents voted in favor of Alternatives 1, 3, or 4 as the preferred alternative.

Future and continuous engagement:

- Matheny Tract Committee Outreach:
 - Provided attendees with flyers for the SWRCB Public Hearing on March 3, 2016
 - Attendees committed to doing outreach with Leadership Counsel to get a large turn-out at the SWRCB hearings
- Media at SWRCB Public Hearings:
 - Attendees want to invite media to be present at the public hearing: Radio Campesina and Univision 21

For further questions or concerns, please contact me at the number below.

Merced C. Barrera
Policy Advocate
Leadership Counsel for Justice and Accountability
764 P Street, Suite 12
Fresno, CA 93721
www.leadershipcounsel.org
[\(310\) 499-8034](tel:3104998034)

**MATHENY TRACT WASTEWATER SYSTEM
PROJECT FEASIBILITY REPORT**

**PUBLIC WORKSHOP
FEBRUARY 6, 2016**

AGENDA

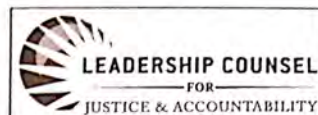
- 1. Welcome & Introduction**
- 2. Overview of Wastewater Systems v. Septic Tanks**
- 3. Discussion of Tulare County Wastewater Feasibility Study for Matheny Tract**
- 4. Question: Do residents want to pursue a wastewater system consolidation with the City of Tulare?**
- 5. Next Steps & Additional Announcements**

**MATHENY TRACT WASTEWATER SYSTEM
PROJECT FEASIBILITY REPORT**

**TALLER PÚBLICO
6 DE FEBRERO DE 2016**

AGENDA

- 1. Bienvenido & Introducción**
- 2. Qué es un systema de drenaje a comparacion de tanques sépticos**
- 3. Estudio de Viabilidad del Condado de Tulare de Aguas Residuales de Matheny Tract**
- 4. Pregunta: ¿Los residentes quieren llevar a cabo una consolidación del sistema de aguas residuales con la Ciudad de Tulare?**
- 5. Próximos Pasos & Otros Anuncios**



Sign in Sheet

Matheny Tract Wastewater Feasibility Meeting <i>Luis R. Vazquez</i>	Community Name: <i>Matheny Tract</i>	Date: <i>2/6/16</i>	Time: <i>10am</i>	
Name	Address	Email	Phone	Home Owner or Renter?
Jose & Teresa Delgadillo	354 W. Beacon Ave	<i>Teresa 833 E. Beacon St teresa833@yahoo.com</i>	<i>Jose 623-6451 Teresa 623-3840</i>	Home Owner
Abdiel Rios	441 West Beacon			
GONZALO GARCIA	306 W. BEACON			
Santiago Rivera	462 W Beacon		559-368-5076	
Lenora Ojans	255 E. Beacon	<i>Yofis125044@sbcsglobal.net</i>	559-553-3656	Owner
Mary Estrada	3719 S. Casa St		559-901-9064	Renter
ARLEO CONTRERAS	193-W Beacon AV.		559-687-2702	OWNER
TSABEL RANGEL	3845 S. CASA ST.		559-631-8030	Owner.
Javier Medina	537 W Beacon AVE		559-743-144	
Irene Paredes	559 331-5437			
Ofelia Zoragors	559 901-6138			
Alejandro Yanez	559 7686-8543			
Jack Mitchell	142 W Addie Ave			Owner
Quena Cortes	3626 S Luta			

**MATHENY TRACT WASTEWATER SYSTEM
PROJECT FEASIBILITY REPORT**

HOJA DE HECHOS

Servicios de aguas residuales centralizada en MATHENY TRACT?

¿Cuál es la diferencia entre un sistema centralizado de aguas residuales y un tanque séptico ?

Un sistema de aguas residuales conecta casas individuales en una comunidad o ciudad para una planta de tratamiento de agua , mientras que un sistema séptico individuo trata las aguas residuales de una o unas pocas propiedades y por lo general se encuentra en una propiedad privada . Aguas residuales municipales (también llamado de aguas residuales) por lo general va a un combinado de alcantarillas o de alcantarillado sanitario y se trata a una planta de tratamiento de aguas residuales . En la actualidad, las vías Matheny se basa en los tanques sépticos .

Problemas potenciales con fosas sépticas:

- **Riesgos de salud:**
 - Si un sistema séptico o no supere la capacidad, las aguas residuales sin tratar puede afectar la salud de las personas y el medio ambiente o aguas residuales sin tratar puede contener patógenos dañinos que pueden causar enfermedades y contaminar las aguas subterráneas
 - Algunos productos químicos que utilizan tanques sépticos plantean riesgos para la salud
 - Muchos tanques sépticos en Matheny Tract están fallando o en riesgo de fracasar debido a la falta de capacidad en los suelos y en los lotes.
 - Otros riesgos para los valores de la propiedad y el vecindario: o los sistemas sépticos puede crear daños a la propiedad
 - Nuevas reglas harán que sea difícil o imposible para los hogares en lotes más pequeños que dependen de fosas sépticas para desarrollar e incluso hacer que sea difícil o imposible para los hogares en lotes más pequeños para reemplazar sistemas sépticos si fallan (nueva ordenanza de Tulare sólo permitirá a los tanques sépticos en lotes que son 12.500 pies cuadrados. Muchos lotes en Matheny Tracto son menores de 12.500 pies cuadrados) o mantenimiento, reparación y sustitución de los sistemas sépticos puede ser costoso

**ESTUDIO DEL CONDADO DE TULARE SOBRE SISTEMA DE ALCANTARILLADO Y
FACTIBILIDAD PARA MATHENY TRACT**

EL Condado de Tulare hizo un estudio para determinar la mejor opción o las opciones para el tratamiento de aguas residuales en la comunidad . El Condado de Tulare puede utilizar el estudio para conseguir dinero para completar un proyecto de aguas residuales . El objetivo de este proyecto es mejorar la salud de la comunidad, mejorar la sostenibilidad de la comunidad, mejorar la calidad del agua subterránea, y establecer eliminación de aguas residuales economico y fiable.

MATHENY TRACT WASTEWATER SYSTEM PROJECT FEASIBILITY REPORT

¿Cuáles son las alternativas?

Alternativa 1 : Sistemas sépticos y establecer un Distrito Mantenimiento de tanques sépticos

Alternativa 2 : Conectar cada casa con el sistema de aguas residuales de Tulare

Alternativa 3 : Desarrollar un sistema de aguas residuales en Matheny Tract

Alternativa 4 : No hacer nada: cada hogar sigue manteniendo su propio sistema séptico

El estudio identificó la Alternativa 2 , la conexión a la Ciudad de sistema de aguas residuales de Tulare , como la mejor alternativa para las siguientes razones :

- sistemas sépticos existentes continuarán fallar sin reparar en curso
- La Ciudad se haría cargo de la recogida y tratamiento de aguas residuales en el Matheny Tract
- La comunidad evitaría los costes y la carga de poseer y operar una planta de tratamiento de aguas residuales individual y de formar un nuevo distrito especial , mientras se benefician de " economías de escala " de la conexión al sistema de aguas residuales de la ciudad más grande.
- La Ciudad también beneficiaría al recibir pagos de clientes nuevos para operar y mantener su planta de tratamiento de aguas residuales
- El costo promedio mensual por cliente es \$42 . A medida que la alternativa con los costos operativos más bajos proyectado, podría ser elegible para recibir dinero para construir .

**MATHENY TRACT WASTEWATER SYSTEM
PROJECT FEASIBILITY REPORT**

FACT SHEET

CENTRALIZED WASTEWATER SERVICES IN MATHENY TRACT?

What is the difference between a centralized wastewater system and a septic tank?

A waste water system connects individual homes in a community or city to a water treatment plant while an individual septic system treats wastewater from one or a few properties and is usually located on private property. Municipal wastewater (also called sewage) usually goes to a combined sewer or sanitary sewer and is treated at a wastewater treatment plant. Currently, Matheny Tract relies on septic tanks.

Potential Issues with Septic Tanks:

- Health risks:
 - If a septic system fails or is over capacity, untreated sewage can impact the health of the environment and people
 - Untreated wastewater can carry harmful pathogens that can cause illnesses and contaminate groundwater
 - Some chemicals that septic tanks use pose health risks
 - Many septic tanks in Matheny Tract are failing or at risk of failing due to lack of capacity in soils and on lots.
- Other risks to property values and the neighborhood:
 - Failing septic systems can create property damage
 - New rules will make it difficult or impossible for homes on smaller lots reliant on septic tanks to develop and will even make it hard or impossible for homes on smaller lots to replace septic systems if they fail (Tulare's new ordinance will only allow septic tanks on lots that are 12,500 square feet. Many lots in Matheny Tract are smaller than 12,500 square feet)
 - Maintaining, repairing and replacing septic systems can be costly

**TULARE COUNTY WASTEWATER SYSTEM FEASIBILITY STUDY
FOR MATHENY TRACT**

Tulare County did a study to determine the best option or options for wastewater treatment in the community. Tulare County can use the study to get money to complete a wastewater project. The goal of this project is to improve community health, improve the sustainability of the community, improve groundwater quality, and establish affordable and reliable wastewater disposal.

What are the alternatives?

Alternative 1: On-Site Septic Systems and establish a Septic Tank Maintenance District

Alternative 2: Connect each home with City of Tulare's wastewater system

Alternative 3: Develop a wastewater system in Matheny Tract

Alternative 4: Do nothing: each home continues to maintain its own septic system

See Reverse

MATHENY TRACT WASTEWATER SYSTEM PROJECT FEASIBILITY REPORT

The Study identified Alternative 2, connection to the City of Tulare's wastewater system, as the best alternative for the following reasons:

- Existing septic systems will continue to fail without ongoing repair.
- The City would take over wastewater collection and treatment in Matheny Tract.
- The community would avoid the costs and burden of owning and operating an individual wastewater treatment facility and of forming a new special district, while benefiting from "economies of scale" of connecting to the larger City wastewater system.
- The City benefits by receiving payments from new customers to operate and maintain their wastewater treatment plant.
- The average monthly cost per customer is \$42. As the Alternative with the lowest projected operational costs, it could be eligible for money to construct.

I choose Alternative #

Leonard

Leonard O'Gans
2-6-2016

May 19, 2017

Ms. Angie Noorda
State Water Resources Control Board - Division of Financial Assistance
1001 I Street
Sacramento, CA 95814

Subject: Agreement No. 12-539-550: Response to Comments Received on May 17, 2017

Dear Ms. Noorda:

Carollo has received your comments on the Draft Domestic Wastewater Treatment Plant (DWWTP) Capacity Evaluation and Collection System Capacity Evaluation we submitted to the City of Tulare on May 12, 2017 and May 8, 2017, respectively. Responses to these specific comments are included below:

- 1) The capacity study focuses on the needed improvements for the collection system to be able to accept the anticipated flows, however, the study does not appear include some tasks in relation to treatment at the DWWTP. Please include the following items required in the "Exhibit '1' City of Tulare and Carollo Engineers, Inc." work order document:
 - a. Task 2.3 - Revise the DWWTP Treatment Model. Task 2.3 shows that recommendations for a revised DWWTP capacity would be developed. The report shows flows had decreased since 2013 due to water conservation efforts, however, please show the revised capacity. Also, please clarify if the City will still request an increase to the permitted capacity (i.e., over the permitted 6.0 MGD).

[Carollo] Per Section 7.1, the 2013 Study revised the capacity of the DWWTP to 5.2 million gallons per day (mgd) (5.5 mgd maximum month flow). This study has determined that the current capacity due to the changes in the operation of the facility is 5.5 mgd (5.8 mgd max month flow). The flow capacity increase of the facility would have been higher had it not been for the reduced flow to the plant over the period from 2013 to 2016 (i.e., increased wastewater strength). The DWWTP still does not have the ability to treat a maximum month flow of 6.0 mgd. The capacity "bottleneck" is the aeration system. Additional blowers and diffusers are needed to achieve a capacity of 6.0 mgd.

- b. Task 2.4 - Prepare the Updated DWWTP. The task shows that the study will present the capacity of the plant to accept more flow, BOD, TSS, and nitrogen than previously estimated. Please ensure this information is included when submitting the revised study.

[Carollo] Table 12 in the report summarizes the revised capacity of the DWWTP. The table below shows the resulting increase between the 2013 and 2017 studies in regards to the maximum month condition:

Parameter	2017	2013	Increase from 2013 to 2017
Flow, mgd	5.8	5.5	5.5%
BOD, ppd ⁽¹⁾	17,201	16,744	2.7%
TSS, ppd	14,862	12,490	19.0%
TKN, ppd	2,099	1,995	5.2%

Notes:

(1) ppd = pounds per day

This table can be added to the revised study to show the resulting increased capacity of the DWWTP to treat additional flow, BOD, TSS, nitrogen (as TKN).

- c. Task 3.3 - DWWTP Capacity Evaluation. The task shows that the study will include an assessment of the ability of the DWWTP to treat the flow from the Matheny tract. Please ensure that the study describes any upgrades needed for treatment at the DWWTP (from the addition of Matheny flows).

[Carollo] Per Section 7.3, the DWWTP as currently operated, has the capacity to treat the flow anticipated from the Matheny Tract (i.e., no capital improvements are required at the DWWTP to treat the flows from the Matheny Tract).

- 2) Since the 27-inch diameter pipe surcharged in existing conditions as well as the addition of Matheny tract, we agree that improvements are needed to be able to accept flows. Please address the following items:
 - a. Please clarify the report to clearly indicate which pipe(s) are planned to be in operation at the end of the project. The conclusion section refers to maximum depth in the 27-inch pipe in Paige Avenue, and states the maximum depth for the 42-inch diameter pipe. Therefore, it appears that the study is proposing that both the 27-inch pipe and the 42-inch pipe would be in operation after the project. In contrast, the Eastside Sewer Trunk Extension Project plans that were previously submitted appear to show only a 42-inch pipe on Paige Avenue. Please revise the conclusion section to specify if existing pipes (including the 27-inch pipe) will be abandoned, or if both pipes are proposed. If both pipes are proposed, please provide more information to show that both the 27-inch and 42-inch pipes are needed for the project.

[Carollo] The Eastside Sewer Trunk Extension Plans do not show that the existing 27-inch pipe will be abandoned. The 27-inch line was always intended to remain in service per the design drawings, as well as the City's 2009 Sewer System Master Plan. There are several sewer mains connected to the existing 27-inch main west of K Street that would remain connected to the existing 27-inch line. A sentence can be added to the report that clarifies this.

- b. Please provide information in the report to show that adequate pipe flow velocities can be maintained for the proposed collection system piping.

[Carollo] The proposed pipelines were designed with a sufficient slope to maintain scour velocities (in accordance with Table 3.2 of the 2009 Sewer System Master Plan). This will be clarified in the report.

- c. Note: For the Feasibility Study Amendment, please note we are going to need a capital cost estimate broken out for the Matheny tract. Please revise the budget once the capacity study has been completed. The capital costs for Matheny can include the following: 1) a percentage costs for collection system improvements needed to take on Matheny tract; and 2) a percentage of needed DWWTP upgrades. For the upgrades, you could figure out the cost using a percentage of the Matheny flows (270,000 gallons per day [gpd]) versus the capacity of the DWWTP (not include planned development flows).

[Carollo] Improvements to the City's wastewater infrastructure necessary to accommodate the Matheny Tract are limited to the collection system. The DWWTP has sufficient capacity to accommodate the flows

Ms. Angie Noorda
State Water Resources Control Board
May 19, 2017

Page 3

from the Matheny Tract. Improvements to the collection system include the new 42-inch line in Paige Avenue. The impacted section of the 42-inch line was included as bid alternate A for Project 11-13 that was opened on January 10, 2013. The bids for this portion of the project ranged from \$4.42 million to \$7.13 million. Using a 10-cities Engineering News Record (ENR) consumer cost index (CCI) adjustment from January 2013 (9437) to May 2017 (10532), this range in May 2017 is estimated at \$4.93 million to \$7.96 million. Based on a flow apportionment between the City and Matheny Tract, the Matheny Tract would be responsible for 4.5% of the total estimated construction cost for the project. Assuming the highest bid result escalated to May 2017, the Matheny Tract would be responsible for \$358,000. This cost apportionment discussion will be included in the revised report.

If you have any questions regarding our response to comments above or have additional question regarding either the DWWTP Capacity Evaluation or Collection System Capacity Evaluation, please do not hesitate to call or email.

Sincerely,

CAROLLO ENGINEERS, INC.



Eric Casares, PE
Associate Vice President

EC:aw

cc: Tim Loper (PIC);
Joseph Carlini (City Manager);
Eric Coyne (Deputy CAO)

APPENDIX E

NOTICE OF PREPARATION, SCOPING MEETING, AND COMMENTS TO NOTICE OF PREPARATION

NOTICE OF PREPARATION AND NOTICE OF SCOPING MEETING FOR AN ENVIRONMENTAL IMPACT REPORT

NOTICE IS HEREBY GIVEN of Tulare County's intent to prepare an Environmental Impact Report (EIR). A public scoping meeting to receive comments concerning the scope of this EIR will be held on Thursday, February 9, 2017, at 1:30 PM, in the Conference Room "L" of the Resource Management Agency at 5961 South Mooney Blvd., Visalia, California 93277-9394.

1. **PROJECT:** Matheny Tract Wastewater System Project
2. **APPLICANT/AGENT:** Tulare County Resource Management Agency/ Tulare County Resource Management Agency
3. **PROJECT LOCATION:** The community is separated into two segments, the northern and southern portions. The northern portion (Matheny North) is generally bounded by Road 96 (Pratt Street) and I Street in the east-west direction and Wade and Addie Avenues in the north-south direction. The southern portion (Matheny South) is generally bounded by Road 96 on the west and Prine and Matheny Avenues in the north-south direction. The project site is located within the north half of the southeast quarter of Section 22, the north half of the southwest corner of Section 23, and the north half of the northeast quarter of Section 27, Township 20 South, Range 24 East, MDB&M. The project can be found within the Tulare USGS 7.5 minute topographic quadrangle. The coordinates of the proposed project site are: Matheny North (Canal Street and Beacon Avenue) Latitude 36°10'20.90" N, Longitude 119°20'55.95" W; and Matheny South (Matheny Avenue and Prine Drive) Latitude 36°10'01.11" N, Longitude 119°21'14.90" W.
4. **PROJECT DESCRIPTION:** The project consists of a new wastewater system for the Matheny Tract community. The proposed project includes the construction of: a new gravity wastewater collection system throughout the Matheny Tract; one or more lift stations, including new points of electric service; sewer laterals from each property, with connection to each existing residence; and construction of 2,900 feet of 12-inch sewer main in Pratt Street from Matheny Tract to Paige Avenue to accommodate connection to the City of Tulare's existing 27-inch sewer main at Paige Avenue and K Street. Additional project-related components include: the in-place abandonment of existing septic systems and leach fields.
5. **ENVIRONMENTAL DOCUMENT:** Environmental Impact Report. The NOP is available on the County website at: <http://tularecounty.ca.gov/rma/index.cfm/documents-and-forms/planning-documents/environmental-planning/environmental-impact-reports/>
6. **NOTICE OF PREPARATION COMMENT PERIOD:** January 13, 2017 – February 13, 2017, at 5:00 p.m.

All interested parties are invited to attend and be heard. If you have any questions regarding this environmental document please call Hector Guerra, Chief Environmental Planner, at (559) 624-7121 (**para Español llame Jose Saenz (559) 624-7102**). If you challenge the decision on any of the foregoing matters in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the Tulare County Resource Management Agency, Economic Development and Planning Branch within the review period described herein. In compliance with the American Disabilities Act, if you need special assistance to participate in meetings call (559) 624-7000 48-hours in advance of the meeting.

Benjamin Ruiz, Jr, SE, PE, ENVIRONMENTAL ASSESSMENT OFFICER

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 13, 2017

Subject: **Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR)**

Project Title: Matheny Tract Wastewater System Project

Project Applicant: Tulare County Resource Management Agency

Project Location:

Tulare County Resource Management Agency (RMA) will be the Lead Agency and will prepare an Environmental Impact Report (EIR) 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 or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. The NOP and Matheny Tract Wastewater System Project Feasibility Report are available on the County website at:

<http://tularecounty.ca.gov/rma/index.cfm/documents-and-forms/planning-documents/environmental-planning/environmental-impact-reports/>

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.

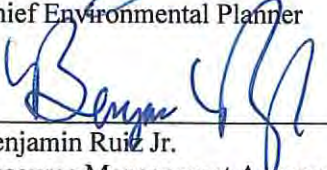
A scoping meeting is scheduled for **Thursday, February 9, 2017, at 1:30 p.m.** in the Conference Room "L" of the Tulare County Resource Management Agency at the address shown above.

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 or by telephone at 559-624-7121.

Please provide us with the name of a contact person in your agency.

Signature: 
Hector Guerra,
Title: Chief Environmental Planner

Date: 1/12/17

Signature: 
Benjamin Ruiz Jr.
Title: Resource Management Agency Director/Environmental Assessment Officer

Date: 1/12/17

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375

PROJECT LOCATION AND SETTING

The unincorporated Matheny Tract community is located less than 0.5 miles south of the City of Tulare in Tulare County in California's Central Valley. As noted earlier, this document has been prepared using the Preferred Alternative as the proposed Project. As such, the following discussion refers to the "Preferred/Proposed Project" as "the Project". The Project site is located approximately 60 miles east of the Coastal Range and approximately 25 miles west of the foothills of the Sierra Nevada Mountain Range. The topography of Matheny Tract comprises a relatively flat, level surface with no major slopes, mountain hillsides, or bodies of water. Matheny Tract sits at an approximate elevation of 263 feet above mean sea level.¹

The community is separated into two segments, the northern and southern portions. The northern portion (Matheny North) is generally bounded by Road 96 (Pratt Street) and "I" Street in the east-west direction and Wade and Addie Avenues in the north-south direction. Adjacent to "I" Street, the Union Pacific Railroad tracks are elevated approximately 10-feet above natural ground surface; these railroad tracks serve as a physical boundary between the City of Tulare and the Matheny Tract.

The southern portion is (Matheny South) generally bounded by Road 96 on the west and Prine and Matheny Avenues in the north-south direction. The Matheny Tract is bordered by agriculture lands to the west, north and south; agriculture land also lies between the northern and southern portions of the community.

The Project is within the north half of the southeast quarter of Section 22, the north half of the southwest corner of Section 23, and the north half of the northeast quarter of Section 27, Township 20 South, Range 24 East, Mount Diablo Base & Meridian of the Public Land Survey System. It can be found within the Tulare United States Geological Survey (USGS) 7.5-minute topographic quadrangle.

Matheny North (Canal Street and Beacon Avenue):

Latitude: 36°10'20.90" N

Longitude: 119°20'55.95" W

Matheny South (Matheny Avenue and Prine Drive):

Latitude: 36°10'01.11" N

Longitude: 119°21'14.90" W

Matheny Tract is approximately 0.5 miles east of State Route (SR) 99, 2 miles south of SR 137, and approximately 3 miles southeast of SR 63.

PROJECT DESCRIPTION

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 Draft Environmental Impact Report (EIR) to evaluate the environmental effects associated with the development of the proposed Matheny Tract Wastewater System as described in the Final Project Feasibility Report Matheny Tract Wastewater System (Feasibility Report or Report).

¹ Final Project Feasibility Report Matheny Tract Wastewater System Tulare County, California. Page 5. Prepared by Provost & Pritchard Consulting Group February 2016

The Project being evaluated in the Draft EIR is Alternative 2 (the Preferred Alternative; and will be discussed in Chapter 5 Alternatives): As described in the Report; Alternative No. 2, a gravity collection system and consolidation with the City of Tulare, is the preferred alternative. This alternative includes construction of a wastewater collection system within the Matheny Tract, at least one lift station located near Pratt Street, and a combination of 8-, 10- and 12-inch PVC sewer mains with manholes spaced at 350 feet.

Alternative 2 consists of constructing a new gravity wastewater collection system, likely with at least one lift station, and connection to the existing City of Tulare wastewater collection system. New Sewer services and onsite plumbing would be required to connect each property to the new wastewater collection system and the existing septic systems would require abandonment.

As identified by the Report, the Project Components include:

- “Construction of
 - ☐ new gravity wastewater collection system throughout the Matheny Tract
 - ☐ one or more lift stations, including new points of electric service
 - ☐ sewer laterals from each property, with connection to each existing residence
- Connection to the City of Tulare’s existing 27-inch sewer main at Paige Avenue and “K” Street
 - ☐ Construction of 2,900 feet of 12-inch sewer main in Pratt Street from Matheny Tract to Paige Avenue.
- In-place abandonment of existing septic systems and leach fields

If you require additional information related to this notice, please contact:

Hector Guerra, Chief Environmental Planner
hguerra@co.tulare.ca.us or at (559) 624-7121

REVIEWING AGENCIES AND POTENTIAL APPROVALS REQUIRED:

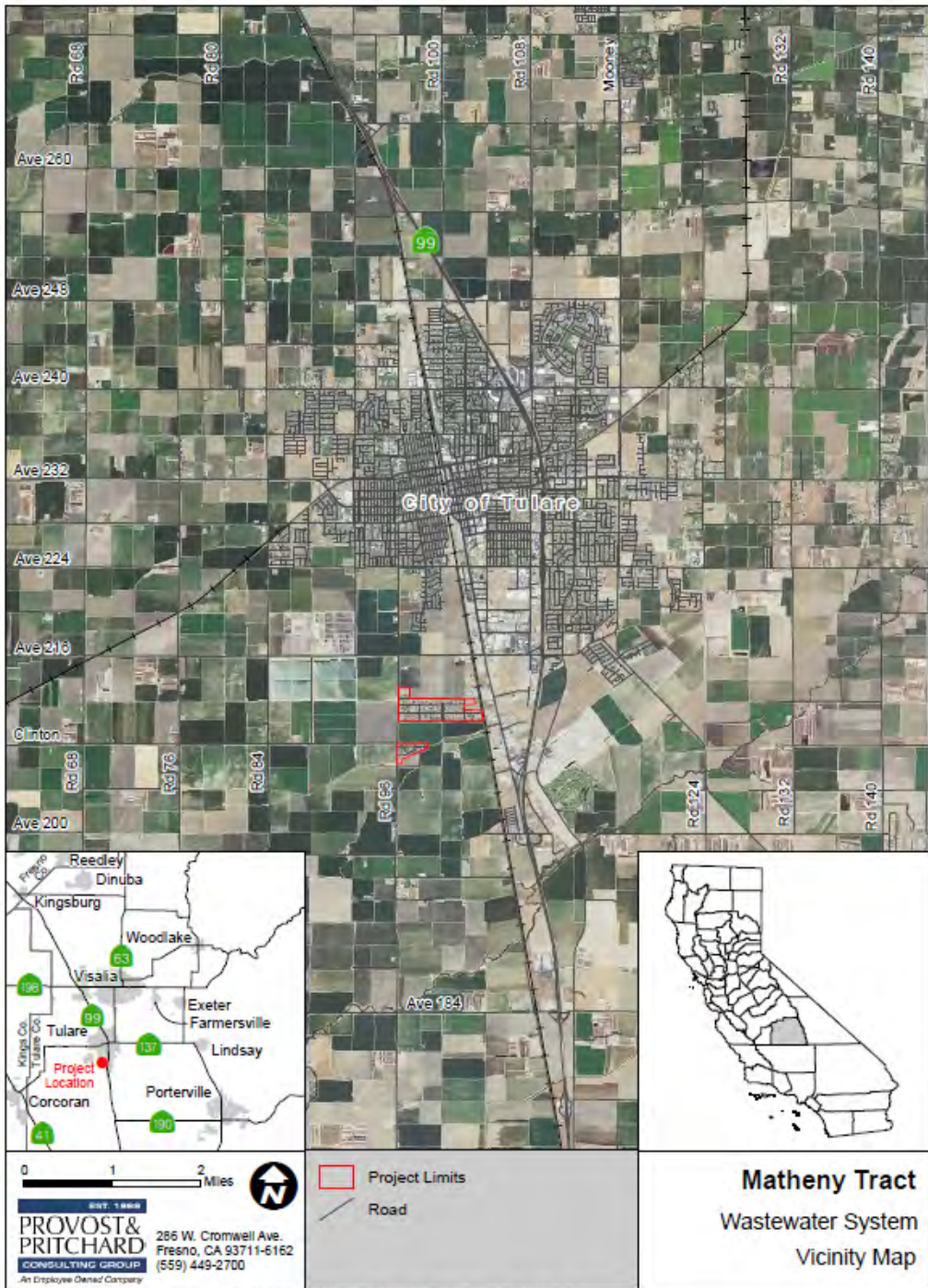
The following agencies may have jurisdiction over elements of the proposed Project:

State and Federal:

- California Air Resources Board
- California Department of Conservation
- California Department of Fish and Wildlife
- California Department of Toxic Substances Control
- California Department of Transportation
- California Department of Water Resources
- California Native American Heritage Commission
- California Office of Historic Preservation
- Regional WQCB Region 5
- State WRCB Clean Water Grants
- State WRCB Water Quality

Local and Regional:

- Central Valley Regional Water Quality Control Board
- City of Tulare
- San Joaquin Valley Unified Air Pollution Control District
- Southern California Edison
- Southern California Gas Company
- Tulare County Association of Governments
- Tulare County Fire Warden
- Tulare County Health and Human Services Agency (Environmental Health)
- Tulare County Local Agency Formation Commission
- Tulare County Resource Management Agency (Fire, Flood Control, Planning, Public Works)








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Fresno, CA 93711-6162
(559) 449-2700

-  Canal
-  Project Limits
-  City Limits 2012

Matheny Tract
Wastewater System
Project Boundary

SUMMARY OF POTENTIAL ENVIRONMENTAL EFFECTS

The EIR will address all checklist items contained in Appendix G of the State CEQA Guidelines. The analysis will address the probable direct, indirect, and cumulative environmental impacts associated with construction and operation of the Matheny Tract Wastewater System (Project). The following is a discussion of the environmental topics to be covered in the EIR:

Aesthetic/ Visual Resources

As described in the Matheny Tract Wastewater System Project Feasibility Report (Feasibility Report or Report): Matheny Tract is a community primarily comprised of rural residential properties with single-family dwelling units. The area has paved roads which are owned and maintained by the County of Tulare and provide sufficient circulation throughout the community. The County of Tulare is the agency that determines property land use and zoning; however, the area is also considered in the City of Tulare's General Plan. Of the 302 parcels included in this project, all but 17 are zoned R-A-M (Rural Residential, Special Mobil home Zone). Five (5) parcels are zoned AE-20 (Exclusive Agriculture Zone – 20 Acre Minimum); five (5) parcels are zoned R-2 (Two Family Residential Zone); one (1) parcel is zoned C-1 (Neighborhood Commercial Zone); two (2) parcels are zoned C-2-M (General Commercial, Special Mobil home Zone); and three (3) parcels are zoned C-2 (General Commercial Zone). The EIR will provide an evaluate impacts to aesthetic and visual resources.

Agriculture Resources

There are currently no agricultural operations occurring within the Project site. Adjacent properties to the north, west, and south of the project site are farmland including field and row crops and nut trees. The Project will not encroach into adjacent agricultural uses and will not require adjacent properties to discontinue any agriculture related operations. The EIR will provide an assessment of potential Project related impacts to agricultural resources.

Air Quality / 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 Project construction and operation. An air quality analysis will be prepared to establish baseline, project, and cumulative impacts. The Project-related 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, and construction- and operations-related activities. 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

The proposed Project site has been previously disturbed. Potential foraging areas within the Project site include adjacent agricultural lands north, west, and south of the project sites. The Project site includes two hydrological features (Oakland Colony Ditch and West Oakland Colony Ditch) which are Tulare Irrigation Canals. A biological evaluation of the proposed Project site will be conducted and the proposed Project's potential to affect biological resources will be analyzed in the EIR.

Cultural Resources / Tribal Cultural Resources

Although the proposed Project will be constructed on previously disturbed land, it cannot be definitively concluded that cultural resources are absent. A search of the Southern San Joaquin Valley Information Center California Historical Resources Information System (CHRIS) will be conducted. A Sacred Land File (SLF) Search will be submitted to the Native American Heritage Commission (NAHC) and any tribes listed by the NAHC will receive consultation notices pursuant to the requirements of AB 52. Depending upon responses from tribal consultation, a cultural resources evaluation may be prepared for this Project. The EIR will examine the proposed Project's potential to affect cultural resources and Tribal cultural resources.

Geology, Soils, and Mineral Resources,

According to the USDA Natural Resources Conservation Service Web Soil Survey, the entire Project site consists of as Colpien Loam, 0 to 2 percent slopes. The Colpien Loam consists of very deep, moderately-well-drained soils on terraces that formed in alluvium derived mainly from granitic rocks. According to the Tulare County General Plan 2030 Update EIR, there are no known potential mineral resources on or in the vicinity of the Project site. 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. A geological evaluation of the proposed Project site will be conducted to establish baseline, project, and cumulative impacts related to geology, soils, mineral resources, and paleontological resources.

Hazards and Hazardous Materials

There are no known hazards or 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, and Water Supply

The Matheny Tract is located within Tulare Irrigation District (TID or District) and has numerous canals around and within its boundaries. North of the project site run TID's Main Canal, bifurcating the northern portion is the Oakland Colony Canal and along the north edge of runs the southern portion the West Oakland Colony Canal. The Main Canal is one of TID's primary canals and is approximately 7 feet deep and 35 feet wide at its top. The Oakland Colony Canal and West Oakland Colony Ditch are both smaller canals; the former is approximately 24 feet wide at its top and 5 feet deep while the latter is approximately 11 feet wide and 4 feet deep. The Project site lies within flood Zone X (Shaded), which is a moderate flood hazard area with a 0.2 percent annual chance or a 500 year flood according to the Federal Emergency Management Agency (FEMA) flood zone designation. Construction of buildings within this flood zone require no specific flood mitigation measures; however, it is recommended that all finished floor levels be elevated one (1) foot above adjacent natural ground. The proposed Project is within the Kaweah River Watershed and over the Kaweah River Groundwater Basin. The Project will receive water from the already in place water system provided (Pratt Mutual Water Company). The EIR will describe the proposed Project's effect, both directly and cumulatively on the hydrology, water quality, and water supply resources. A hydrological and water sustainability evaluation are included the Feasibility Report which will be used to establish and analyze baseline, project, and cumulative impacts.

Land Use and Planning

The EIR will describe the proposed Project's potential effects on existing and planned land uses. The Matheny Tract is located entirely within the County of Tulare, and also entirely within Tulare Irrigation

District boundaries. The City of Tulare city limits are located approximately 700 feet of the northern edge of the community and along “I” Street. The City’s sphere of influence, shown in the Public Review Draft of the 2035 General Plan dated November 1, 2013, also shows the community within the City’s Sphere of Influence. As such, 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 noise levels associated with proposed Project construction and operation and will compare these levels to applicable noise thresholds to determine whether the proposed Project would result in a significant noise impact.

Population and 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 and Recreation

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.

Transportation/Traffic

The EIR will evaluate the proposed Project’s impact on regional and local transportation facilities based on a transportation analysis that will assess construction-related impacts (heavy truck trips and construction worker trips), as well as operational impacts (employee and visitor trips). The Project is not anticipated to result in transportation or traffic impacts; however, the EIR will examine these resources accordingly.

Utilities

The purpose of Feasibility Report is to evaluate the alternatives available to replace on-site septic systems for the community of Matheny Tract, which is located in Tulare County adjacent to the City of Tulare. The community is home to over 1,200 residents in nearly 300 houses. The EIR will analyze the current capacity of the above-mentioned services, as well as the proposed Project’s impact on these systems and the capacity available to support the proposed Project. The EIR will also describe the solid waste facilities that would serve the proposed site. The EIR prepared for the Project will analyze the adequacy of infrastructure services for the Project including road, water and wastewater services, and if appropriate, may require mitigation measures.

Growth Inducement

The EIR will evaluate the proposed Project's potential for growth inducement resulting from the establishment of a new source of employment, 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. Monday, February 13, 2017**. 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
or via e-mail at: HGuerra@co.tulare.ca.us
or via facsimile: 559-730-2653
or via phone: 559-624-7121



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

BENJAMIN RUIZ, JR., DIRECTOR

January 12, 2017

State Clearinghouse
1400 Tenth Street, Room 100
Sacramento, CA 95814

Re: Notice of Preparation (NOP) and Notice of Completion (NOC) Submittals for the Matheny Tract Wastewater System Project

Attn: State Clearinghouse:

Attached are the NOC and 15 copies of the NOP for the above referenced project. Tulare County respectfully request 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 13, 2017, at:

<http://tularecounty.ca.gov/rma/index.cfm/documents-and-forms/planning-documents/environmental-planning/environmental-impact-reports/>

If you have questions or need additional materials, please 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) 624-7122
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: Matheny Tract Wastewater System ProjectLead Agency: Tulare County Resource Management AgencyContact Person: Hector Guerra, Chief Env. PlannerMailing Address: 5961 S. Mooney Blvd.Phone: 559-624-7121City: VisaliaZip: 93277-9394County: Tulare CountyProject Location: County: TulareCity/Nearest Community: Matheny TractCross Streets: Canal St & Beacon Ave. and Matheny Ave & Prine Dr.Zip Code: N/ALat./Long: 36°10'20.90" N / 119°20'55.95" W and 36°10'01.11" N / 119°21'14.90" WTotal Acres: N/AAssessor's Parcel No: various Section: 22, 23, 27 Township 20S Range 24E Base: M.D.B. & E

Within 2 Miles: State Hwy: _____ Waterways: _____

Airports: _____ Railways: _____ Schools: _____

CEQA: ☒ NOP ☐ Draft EIR
☐ Early Cons ☐ Supplement/Subsequent EIR
☐ Neg Dec ☐ Draft EIS
☐ Mit Neg Dec Other: _____

NEPA: ☐ NOI Other: ☐ Joint Document
☐ EA ☐ Final Document
☐ Other _____
☐ FONSI

Local Action Type:

☐ General Plan Update ☐ Specific Plan ☐ Rezone ☐ Annexation
☐ General Plan Amendment ☐ Master Plan ☐ Prezone ☐ Redevelopment
☐ General Plan Element ☐ Planned Unit Dev. ☐ Use Permit ☐ Coastal Permit
☐ Community Plan ☐ Site Plan ☐ Land Division (Sub.) ☒ Other: Feasibility Study

Development Type:

☐ Residential: Units _____ Acres _____
☐ Office: Sq. ft. _____ Acres _____ Employees _____
☐ Commercial: Sq. ft. _____ Acres _____ Employees _____
☐ Industrial: Sq. ft. _____ Acres _____ Employees _____
☐ Educational: _____
☐ Recreational: _____
☐ Other: _____

☐ Water Facilities: Type _____ MGD _____
☐ Transportation: Type _____
☐ Mining: Mineral _____
☐ Power: Type _____ MW _____
☐ Waste Treatment: Type _____ MGD _____
☐ Hazardous Waste: Type _____

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: Utilities
☒ Other: Tribal Cultural Resources

Present Land Use/Zoning/General Plan Designation:Land Use: Community of Matheny Tract, including residential and commercial properties

Zoning: Of the 302 parcels included in this project, all but 17 are zoned R-A-M (Rural Residential, Special Mobile home Zone). Five (5) parcels are zoned AE-20 (Exclusive Agriculture Zone – 20 Acre Minimum); five (5) parcels are zoned R-2 (Two Family Residential Zone); one (1) parcel is zoned C-1 (Neighborhood Commercial Zone); two (2) parcels are zoned C-2-M (General Commercial, Special Mobile home Zone); and three (3) parcels are zoned C-2 (General Commercial Zone).

General Plan Designation: _____

Project Description:

The project consists of a new wastewater system for the Matheny Tract community. The proposed project includes the construction of: a new gravity wastewater collection system throughout the Matheny Tract; one or more lift stations, including new points of electric service; sewer laterals from each property, with connection to each existing residence; and construction of

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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 checked="" type="checkbox"/> Office of Historic Preservation
<input 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
<input type="checkbox"/> Caltrans Division of Aeronautics	<input type="checkbox"/> Pesticide Regulation, Department of
<input type="checkbox"/> Caltrans Planning	<input type="checkbox"/> Public Utilities Commission
<input checked="" type="checkbox"/> Central Valley Flood Protection Board	<input checked="" type="checkbox"/> Regional WQCB # 5 (attn: Doug Patteson)
<input type="checkbox"/> Coachella Valley Mtns. Conservancy	<input type="checkbox"/> Resources Agency
<input type="checkbox"/> Coastal Commission	<input type="checkbox"/> Resources Recycling and Recovery, Department of
<input type="checkbox"/> Colorado River Board Commission	<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 (Public School Construction)	<input type="checkbox"/> State Lands Commission
<input type="checkbox"/> Energy Commission	<input checked="" type="checkbox"/> SWRCB: Clean Water Grants
<input checked="" type="checkbox"/> Fish & Game Region #4	<input checked="" type="checkbox"/> SWRCB: Water Quality
<input type="checkbox"/> Food & Agriculture, Department of	<input type="checkbox"/> SWRCB: Water Rights
<input 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 Services, Department of	<input checked="" type="checkbox"/> Water Resources, Department of
<input type="checkbox"/> Housing & Community Development	<input type="checkbox"/> Other: <u>San Joaquin Valley Air Pollution Control District</u>
<input type="checkbox"/> Integrated Waste Management Board	<input type="checkbox"/> Other: <u>Tulare County Health & Human Services Agency</u>
<input checked="" type="checkbox"/> Native American Heritage Commission	<input type="checkbox"/> Other: <u>Tulare County RMA – Planning</u>
<input type="checkbox"/> S Other: <u>Tulare County RMA – Fire</u>	<input type="checkbox"/> Other: <u>Tulare County RMA – Flood Control</u>
<input type="checkbox"/> S Other: <u>Tulare County RMA – Public Works</u>	<input type="checkbox"/> S Other: <u>City of Tulare</u>
<input type="checkbox"/> S Other: <u>Tulare County Association of Governments</u>	<input type="checkbox"/> S Other: <u>Tulare County LAFCO</u>

Local Public Review Period (to be filled in by lead agency)

Starting Date: January 13, 2017

Ending Date: February 13, 2017

Lead Agency (Complete if applicable):

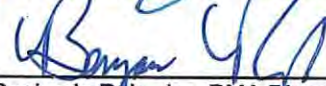
Consulting Firm:
Address:
City/State/Zip:
Contact:
Phone:

Applicant: County of Tulare-RMA
Address: 5961 So. Mooney Blvd.
City/State/Zip: Visalia, CA 93277
Phone: (559) 624-7000

Signature of Lead Agency Representative: 

Hector Guerra, Chief Environmental Planner

Date: 4/12/17

Signature of Lead Agency Representative: 

Benjamin Ruiz, Jr., RMA Director / Environmental Assessment Officer

Date: 1/12/17

Authority cited: Section 21083, public Resources Code. Reference: Section 21161, Public Resources Code.

Tulare County
Association of Governments
Attn: Ted Smalley, Executive Director
210 N. Church Street, Suite B
Visalia, CA 93291

City of Tulare
Community Development Director
411 E. Kern Avenue
Tulare, CA 93274

San Joaquin Valley Unified
Air Pollution Control District
Permit Services – CEQA Division
1990 E. Gettysburg Ave.
Fresno, CA 93726

Santa Rosa Rancheria Tachi Yokut Tribe
Rueben Barrios Sr., Chairperson
P. O. Box 8
Lemoore, CA 93245

Table Mountain Rancheria
Leanne Walker-Grant, Chairperson
P.O. Box 410
Friant, CA, 93626

Tule River Indian Tribe
Tribal Archaeological Department
Joseph Garfield, Tribal Archaeologist
P. O. Box 589
Porterville, CA 93258

Wuksache Indian Tribe
John Sartuche
1028 East “K” Street
Visalia, CA 93292

Tulare County RMA –
Flood Control

Tulare County
Local Agency Formation Commission
210 N. Church Street, Suite B
Visalia, CA 93291

Southern California Edison
Attn: Bill Delain, Region Manager
2425 S. Blackstone
Tulare, CA 93274

Mr. David S. Hulse
Naval Facilities Engineering Command
Community Plans Liaison Officer (CPLO)
1220 Pacific Highway AM-3
San Diego, CA 92132

Santa Rosa Rancheria Tachi Yokut Tribe
Hector Franco, Cultural Director
P. O. Box 8
Lemoore, CA 93245

Table Mountain Rancheria
Bob Pennell, Cultural Resources Director
P.O. Box 410
Friant, CA, 93626

Tule River Indian Tribe
Environmental Department
Kerri Vera, Director
P. O. Box 589
Porterville, CA 93258

Tulare County HHSA - EHD

Tulare County RMA –
Public Works

Tulare County
Fire Warden
907 W. Visalia Road
Farmersville, CA 93223

Southern California Gas Company
404 N. Tipton Street
Visalia, CA 93292

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez, Chairperson
115 Radio Street
Bakersfield, CA, 93305

Santa Rosa Rancheria Tachi Yokut Tribe
Shana Powers, Cultural Specialist
P. O. Box 8
Lemoore, CA 93245

Tule River Indian Tribe
Neil Peyron, Chairperson
P. O. Box 589
Porterville, CA 93258

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas, CA 93906

Tulare County RMA - Fire



EDMUND G. BROWN JR.
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX
DIRECTOR

Notice of Preparation

January 13, 2017

To: Reviewing Agencies

Re: Matheny Tract Wastewater System Project
SCH# 2017011028

Attached for your review and comment is the Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project 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


Tulare County
Resource Management
Agency

JAN 19 2017

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

**Document Details Report
State Clearinghouse Data Base**

SCH# 2017011028
Project Title Matheny Tract Wastewater System Project
Lead Agency Tulare County

Type NOP Notice of Preparation

Description The project consists of a new wastewater system for the Matheny Tract community. The proposed project includes the construction of: a new gravity wastewater collection system throughout the Matheny Tract; one or more lift stations, including new points of electric service; sewer laterals from each property, with connection to each existing residence; and construction of 2,900 feet of 12-inch sewer main in Pratt Street from Matheny Tract to Paige Avenue to accommodate connection to the City of Tulare's existing 27-inch sewer main at Paige Avenue and "K" Street. Additional project related components include: the in-place abandonment of existing septic systems and leach fields; payment of capacity fees to the City of Tulare for each property; modifications to the City of Tulare's existing Sewer System Management Plan (SSMP); and an update to the City of Tulare's Report of Waste Discharge (RWD).

Lead Agency Contact

Name	Hector Guerra		
Agency	Tulare County		
Phone	559-624-7121	Fax	
email			
Address	5961 South Mooney Boulevard		
City	Visalia	State CA	Zip 93277-9394

Project Location

County	Tulare				
City					
Region					
Cross Streets	Canal St. & Beacon Ave. and Matheny Ave & Prine Dr.				
Lat / Long	36° 10' 20.90" N / 119° 20' 55.95" W				
Parcel No.	Various				
Township	20S	Range	24E	Section	22,23,
				Base	MDB&E

Proximity to:

Highways
Airports
Railways
Waterways
Schools

Land Use LU: Community of Matheny Tract, including residential and commercial properties
Z: Of the 302 parcels included in this project, all but 17 are zoned R-A-M (Rural Residential, Special Mobile home Zone).
Five (5) parcels are zoned AE-20 (Exclusive Agriculture Zone - 20 Acre Minimum); five (5) parcels are zoned R-2 (Two Family Residential Zone); one (1) parcel is zoned C-1 (Neighborhood Commercial Zone); two (2) parcels are zoned C-2-M (General Commercial, Special Mobile home Zone); and three (3) parcels are zoned C-2 (General Commercial Zone).

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Drainage/Absorption; Other Issues; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Landuse; Growth Inducing; Cumulative Effects

**Document Details Report
State Clearinghouse Data Base**

<i>Reviewing Agencies</i>	Resources Agency; California Energy Commission; Central Valley Flood Protection Board; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 4; Native American Heritage Commission; Caltrans, District 6; State Water Resources Control Board, Division of Financial Assistance; Regional Water Quality Control Bd., Region 5 (Fresno)
--------------------------------------	--

<i>Date Received</i>	01/13/2017	<i>Start of Review</i>	01/13/2017	<i>End of Review</i>	02/13/2017
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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 #

2017011028

Project Title: Matheny Tract Wastewater System ProjectLead Agency: Tulare County Resource Management AgencyContact Person: Hector Guerra, Chief Env. PlannerMailing Address: 5961 S. Mooney Blvd.Phone: 559-624-7121City: VisaliaZip: 93277-9394County: Tulare CountyProject Location: County: TulareCity/Nearest Community: Matheny TractCross Streets: Canal St & Beacon Ave. and Matheny Ave & Prine Dr.Zip Code: N/ALat./Long: 36°10'20.90" N / 119°20'55.95" W and 36°10'01.11" N / 119°21'14.90" WTotal Acres: N/AAssessor's Parcel No: various Section: 22, 23, 27 Township 20S Range 24E Base: M.D.B. & E

Within 2 Miles: State Hwy: _____

Waterways: _____

Airports: _____

Railways: _____

Schools: _____

- CEQA: ☒ NOP
☐ Early Cons
☐ Neg Dec
☐ Mit Neg Dec

- ☐ Draft EIR
☐ Supplement/Subsequent EIR
☐ Draft EIS
Other: _____

Governor's Office of Planning & Research

JAN 13 2017

- NEPA: ☐ NOI
☐ EA
☐ Other _____
☐ FONSI

- Other: ☐ Joint Document
☐ Final Document

Local Action Type:

- ☐ General Plan Update
☐ General Plan Amendment
☐ General Plan Element
☐ Community Plan

- ☐ Specific Plan
☐ Master Plan
☐ Planned Unit Dev.
☐ Site Plan

- ☐ Rezone
☐ Prezone
☐ Use Permit
☐ Land Division (Sub.)

- ☐ Annexation
☐ Redevelopment
☐ Coastal Permit
☒ Other: Feasibility Study

Development Type:

- ☐ Residential: Units _____ Acres _____
☐ Office: Sq. ft. _____ Acres _____ Employees _____
☐ Commercial: Sq. ft. _____ Acres _____ Employees _____
☐ Industrial: Sq. ft. _____ Acres _____ Employees _____
☐ Educational: _____
☐ Recreational: _____
☐ Other: _____

- ☐ Water Facilities: _____
☐ Transportation: _____
☐ Mining: _____
☐ Power: _____
☐ Waste Treatment: _____
☐ Hazardous Waste: _____

- Type _____ MGD
Type _____
Mineral _____
Type _____ MW
Type _____ MGD
Type _____

Project Issues Discussed in Document:

- ☒ Aesthetic/Visual
☒ Agricultural Land
☒ Air Quality
☒ Archaeological/Historical
☒ Biological Resources
☐ Coastal Zone
☒ Drainage/Absorption
☐ Economic/Jobs
☒ Other: Tribal Cultural Resources
- ☐ Fiscal
☒ Flood Plain/Flooding
☒ Forest Land/Fire Hazard
☒ Geologic/Seismic
☒ Minerals
☒ Noise
☒ Population/Housing Balance
☒ Public Services/Facilities

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☒ Schools/Universities
☐ Septic Systems
☐ Sewer Capacity
☒ Soil Erosion/Compaction/Grading
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☒ Toxic/Hazardous
☒ Traffic/Circulation

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☒ Growth Inducing
☒ Land Use
☒ Cumulative Effects
☒ Other: Utilities

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<input type="checkbox"/> California Highway Patrol	<input type="checkbox"/> Office of Public School Construction
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<input type="checkbox"/> Caltrans Division of Aeronautics	<input type="checkbox"/> Pesticide Regulation, Department of
<input type="checkbox"/> Caltrans Planning	<input type="checkbox"/> Public Utilities Commission
<input checked="" type="checkbox"/> Central Valley Flood Protection Board	<input checked="" type="checkbox"/> Regional WQCB # 5 (attn: Doug Patteson)
<input type="checkbox"/> Coachella Valley Mtns. Conservancy	<input type="checkbox"/> Resources Agency
<input type="checkbox"/> Coastal Commission	<input type="checkbox"/> Resources Recycling and Recovery, Department of
<input type="checkbox"/> Colorado River Board Commission	<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 (Public School Construction)	<input type="checkbox"/> State Lands Commission
<input type="checkbox"/> Energy Commission	<input checked="" type="checkbox"/> SWRCB: Clean Water Grants
<input checked="" type="checkbox"/> Fish & Game Region #4	<input checked="" type="checkbox"/> SWRCB: Water Quality
<input type="checkbox"/> Food & Agriculture, Department of	<input type="checkbox"/> SWRCB: Water Rights
<input 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 Services, Department of	<input checked="" type="checkbox"/> Water Resources, Department of
<input type="checkbox"/> Housing & Community Development	<input type="checkbox"/> Other: <u>San Joaquin Valley Air Pollution Control District</u>
<input type="checkbox"/> Integrated Waste Management Board	<input type="checkbox"/> Other: <u>Tulare County Health & Human Services Agency</u>
<input checked="" type="checkbox"/> Native American Heritage Commission	<input type="checkbox"/> Other: <u>Tulare County RMA - Planning</u>
<input type="checkbox"/> Other: <u>Tulare County RMA - Fire</u>	<input type="checkbox"/> Other: <u>Tulare County RMA - Flood Control</u>
<input type="checkbox"/> Other: <u>Tulare County RMA - Public Works</u>	<input type="checkbox"/> Other: <u>City of Tulare</u>
<input type="checkbox"/> Other: <u>Tulare County Association of Governments</u>	<input type="checkbox"/> Other: <u>Tulare County LAFCO</u>

Local Public Review Period (to be filled in by lead agency)

Starting Date: January 13, 2017

Ending Date: February 13, 2017

Lead Agency (Complete if applicable):

Consulting Firm:

Address:

City/State/Zip:

Contact:

Phone:

Applicant: County of Tulare-RMA

Address: 5961 So. Mooney Blvd.

City/State/Zip: Visalia, CA 93277

Phone: (559) 624-7000

Signature of Lead Agency Representative: 
Hector Guerra, Chief Environmental Planner

Date: 1/12/17

Signature of Lead Agency Representative: 
Benjamin Ruiz, Jr., RMA Director / Environmental Assessment Officer

Date: 1/12/17

Authority cited: Section 21083, public Resources Code. Reference: Section 21161, Public Resources Code.

NOP Distribution List

County: TULARE

SCH#

2017011028

Resources Agency

- ☒ Resources Agency
Nadell Gayou
- ☐ Dept. of Boating & Waterways
Denise Peterson
- ☐ California Coastal Commission
Elizabeth A. Fuchs
- ☐ Colorado River Board
Lisa Johansen
- ☐ Dept. of Conservation
Elizabeth Carpenter
- ☒ California Energy Commission
Eric Knight
- ☐ Cal Fire
Dan Foster
- ☒ Central Valley Flood Protection Board
James Herola
- ☐ Office of Historic Preservation
Ron Parsons
- ☒ Dept of Parks & Recreation
Environmental Stewardship Section
- ☐ California Department of Resources, Recycling & Recovery
Sue O'Leary
- ☐ S.F. Bay Conservation & Dev't. Comm.
Steve Goldbeck
- ☒ Dept. of Water Resources
Nadell Gayou
- ☐ Fish and Game
Dept. 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 Weighman
- ☒ 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 IMI
Heidi Calvert
Inyo/Mono, Habitat Conservation Program
- ☐ Dept. of Fish & Wildlife M
William Paznokas
Marine Region

Other Departments

- ☐ Food & Agriculture
Sandra Schubert
Dept. of Food and Agriculture
- ☐ Depart. of General Services
Public School Construction
- ☐ Dept. of General Services
Cathy Buck/George Carollo
Environmental Services Section
- ☐ Delta Stewardship Council
Kevan Samsam
- ☐ Housing & Comm. Dev.
CEQA Coordinator
Housing Policy Division
- ☐ Independent Commissions/Boards
- ☐ Delta Protection Commission
Erik Vink

- ☐ OES (Office of Emergency Services)
Monique Wilber
- ☒ 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
Philip Cimmmins
- ☐ Caltrans - Planning
HQ LD-IGR
Terri Pencovic
- ☐ 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
Eric Federicks - South
Susan Zanchi - North
- ☐ 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
Cathi Slaminski
- ☐ Transportation Projects
Nesamani Kalandiyur
- ☐ Industrial/Energy Projects
Mike Tollstrup
- ☒ 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 #
- ☐ 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
CEQA Tracking Center
- ☐ Department of Pesticide Regulation
CEQA Coordinator

- ☐ 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

1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Fax (916) 373-5471
Email: nahc@nahc.ca.gov
Website: <http://www.nahc.ca.gov>
Twitter: @CA_NAHC



January 19, 2016

Hector Guerra
Tulare County
5961 South Mooney Boulevard
Visalia, CA 93277-9394

sent via e-mail:
hguerra@co.tulare.ca.us

RE: SCH# 2017011028; Matheny Tract Wastewater System Project, Notice of Preparation for Draft Environmental Impact Report, Tulare County, California

Dear Mr. Guerra:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project 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. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit. 14, § 15064.5 (b) (CEQA Guidelines Section 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, § 15064 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 with the area of project 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). Please reference California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," <http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf>. 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 or a notice of negative declaration or 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 **lead agencies consult with all 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 sections 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 section 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 section 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 section 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 section 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 nonfederally 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 sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 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 section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).
This process should be documented in the Cultural Resources section of your environmental document.

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

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

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 section 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 sections 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) 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 been 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, section 15064.5(f) (CEQA Guidelines section 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 section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subs. (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.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,



Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

cc: State Clearinghouse



TABLE MOUNTAIN RANCHERIA

TRIBAL GOVERNMENT OFFICE

January 24, 2017

Hector Guerra, Chief Environmental Planner
Environmental Planning Division
County of Tulare
5961 South Mooney Blvd.
Visalia, Ca. 93277

Leanne Walker-Grant
Tribal Chairperson

Beverly J. Hunter
Tribal Vice-Chairperson

Craig Martinez
Tribal Secretary/Treasurer

Matthew W. Jones
Tribal Council Member

Richard L. Jones
Tribal Council Member

RE: Matheny Tract Wastewater System Project Feasibility Report

To: Hector Guerra

This is in response to your letter dated, January 12, 2017, regarding, Matheny Tract Wastewater System Project Feasibility Report.

We appreciate receiving notice; however, this project site is beyond our area of interest.

Sincerely,


Robert Pennell
Cultural Resources Director

23736
Sky Harbour Road
Post Office
Box 410
Friant
California
93626
(559) 822-2587
Fax
(559) 822-2693

From: Jessica Willis
To: calvin.rossi@sce.com
CC: Aaron Bock; Hector Guerra
Date: 1/24/2017 10:25 AM
Subject: Notice of Preparation
Attachments: Sequoia Drive-In Business Park NOP.pdf; Sequoia_Drive-In_Scoping_Newspaper_Notice.pdf; Matheny Tract Wastewater System NOP.pdf; Matheny_NOP_Scoping_Notice.pdf

Good morning Mr. Rossi.

Tulare County attempted to mail Southern California Edison (SCE) a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for two projects within Tulare County. These projects are the proposed Sequoia Drive-In Business Park and the proposed Matheny Tract Wastewater System. Both NOPs were returned to the County as "Not Deliverable as Addressed" and "Unable to Forward". The NOPs were addressed as follows:

Southern California Edison
Attn: Bill Delain, Region Manager
2425 S. Blackstone St.
Tulare CA 93274

It has come to my attention that Mr. Delain is no longer with SCE and that may be why these letters have been returned. Please respond with current contact information, including name, title, department/division, mailing address, phone number, and email so that we may continue to provide SCE with future notices in a timely manner consistent with CEQA regulation.

Also, attached for your review (or routing to the appropriate reviewer) are copies of the two NOPs that were returned to the County as well as the Notices of Public Hearing. Due to the delay in your receipt of these documents, please provide any written comments by February 23, 2017.

The NOPs can also be found on the County's website at <http://tularecounty.ca.gov/rma/index.cfm/documents-and-forms/planning-documents/environmental-planning/environmental-impact-reports/>.

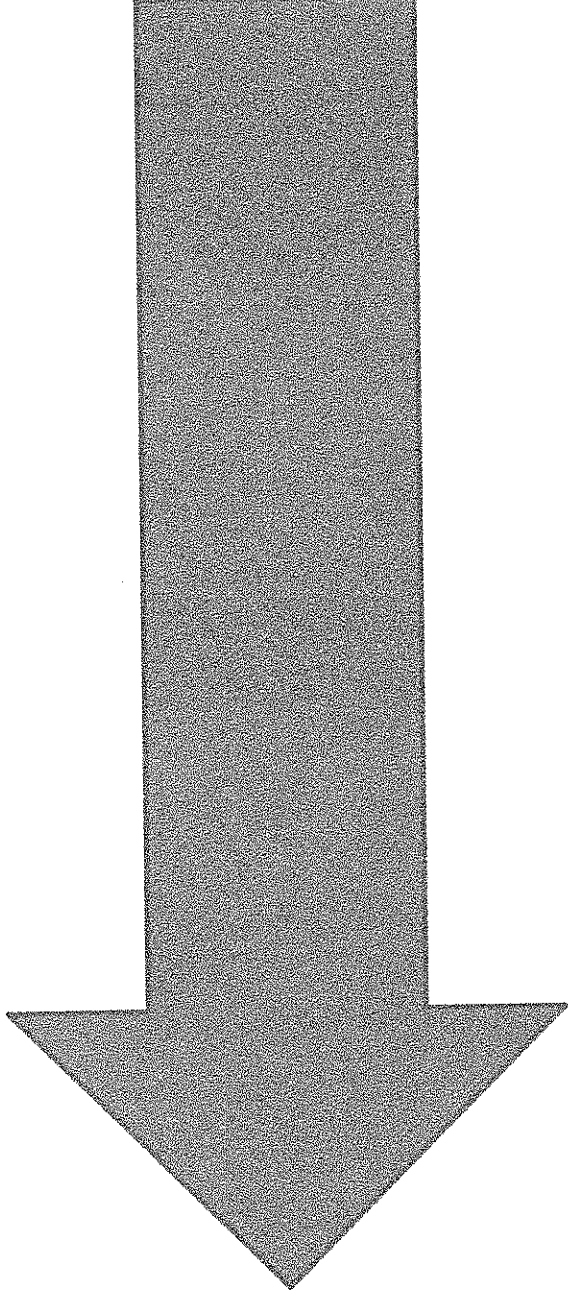
Thank you for your assistance. I look forward to your response.

Sincerely,

Jessica Willis
Planner IV
County of Tulare
Resource Management Agency
Phone: (559) 624-7122
E-mail: JWillis@co.tulare.ca.us

[illegible]

Matheny Tract Wastewater System
Scoping Meeting
1:30 p.m.
Conference Room “L”



Matheny Tract Wastewater System

Scoping Meeting

February 9, 2017

1:30 p.m.



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

VISALIA, CA 93277

PHONE (559) 624-7000

FAX (559) 730-2653

Michael Washam

Economic Development and Planning

Reed Schenke

Public Works

Sherman Dix

Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 9, 2017

Christine Asiata Rodriguez
Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project SCH # 2017011028

Attn: Ms. Asiata Rodriguez or other appropriate State Clearinghouse person:

The County of Tulare (County) is requesting the Notice of Preparation (NOP) comment period for the Matheny Tract Wastewater System Project (SCH # 2017011028) be extended from February 13, 2017 to March 30, 2017. If granted, we further request OPR/SCH notify the appropriate State agencies; for your convenience the State Clearinghouse NOP Distribution List is enclosed.

The County's request would allow the City of Tulare (City) to provide comments following receipt, review, and acceptance of an engineering report the City feels may be critical to providing important regarding the Project. As such, the City requested, and the County agrees, that extending the NOP comment period is in the best interest in preparing a Draft Environmental Impact Report (DEIR) for the Project.

Project Description - The project consists of a new wastewater system for the Matheny Tract community. The proposed project includes the construction of: a new gravity wastewater collection system throughout the Matheny Tract; one or more lift stations, including new points of electric service; sewer laterals from each property, with connection to each existing residence; and construction of 2,900 feet of 12-inch sewer main in Pratt Street from Matheny Tract to Paige Avenue to accommodate connection to the City of Tulare's existing 27-inch sewer main at Paige Avenue and K Street. Additional project-related components include: the in-place abandonment of existing septic systems and leach fields.

Project Objectives & Benefits - The proposed Project is intended to: (1) allow connection to the City of Tulare wastewater treatment facility; (2) result in abandonment of the current on-site septic tank/leach line systems; (3) provide a system that has the least potential to result in adverse environmental impacts and would provide an environmental benefit by eliminating wastewater discharge from existing on-site system tanks; (4) avert a stand-alone wastewater treatment facility; (5) protect groundwater supply; (6) result in cost efficiencies; and (7) be affordable and effective.

February 9, 2017

Page 2

Ms. Asiata Rodriguez

Request for Extension of Notice of Preparation Comment Period

Matheny Tract Wastewater System Project SCH#2017011028

Potentially Significant Environmental Impacts - It is anticipated that potential environmental impacts which may occur include: Aesthetics, Air Quality, Greenhouse Gas Emissions, Hazards & Hazardous Materials, Noise, Traffic, Utilities/Service Systems, and Mandatory Findings of significance.

NOP Availability: Hard copies of the NOP have already been sent to your agency during our initial submittal of the Notice of Completion. As no changes have occurred, the original NOP remains valid.

Web Availability: The NOP can also be found at:

<http://www.tularecounty.ca.gov/rma/index.cfm/planning/environmental-planning/notice-of-preparation-nop/matheny-tract-wastewater-system-nop-pdf/>

Contact for More Information: Hector Guerra, Chief Environmental Planner (559) 624-7121.

Any written comments on the NOP should be sent to the Tulare County Resource Management Agency at the address noted above, to the attention of: Hector Guerra, Chief Environmental Planner. E-mails may be sent to: hguerra@co.tulare.ca.us.

Sincerely,



Michael Washam

Assistant Director

Economic Development and Planning

Enclosures: SCH# NOP Distribution List

NOP Distribution List

County: TULARE

SCH#

2017011028

Resources Agency

- ☒ Resources Agency
Nadell Gayou
- ☐ Dept. of Boating & Waterways
Denise Peterson
- ☐ California Coastal Commission
Elizabeth A. Fuchs
- ☐ Colorado River Board
Lisa Johansen
- ☐ Dept. of Conservation
Elizabeth Carpenter
- ☒ California Energy Commission
Eric Knight
- ☐ Cal Fire
Dan Foster
- ☒ Central Valley Flood Protection Board
James Herola
- ☐ Office of Historic Preservation
Ron Parsons
- ☒ Dept of Parks & Recreation
Environmental Stewardship Section
- ☐ California Department of Resources, Recycling & Recovery
Sue O'Leary
- ☐ S.F. Bay Conservation & Dev't. Comm.
Steve Goldbeck
- ☒ Dept. of Water Resources
Resources Agency
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 Drongosen
- ☐ 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
Heidi Calvert
Inyo/Mono. Habitat Conservation Program
- ☐ Dept. of Fish & Wildlife M
William Paznokas
Marine Region

Other Departments

- ☐ Food & Agriculture
Sandra Schubert
Dept. of Food and Agriculture
- ☐ Dept. of General Services
Public School Construction
- ☐ Dept. of General Services
Cathy Buck/George Carollo
Environmental Services Section
- ☐ Delta Stewardship Council
Kevan Samsam
- ☐ Housing & Comm. Dev.
CEQA Coordinator
Housing Policy Division
- Independent Commissions/Boards
 - ☐ Delta Protection Commission
Erik Vink

- ☐ OES (Office of Emergency Services)
Monique Wilber
- ☒ 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
Philip Crimmins
 - ☐ Caltrans - Planning
HQ LD-IGR
Terri Pencovic
 - ☐ California Highway Patrol
Suzann Ikeuchi
Office of Special Projects
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Mark Roberts
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Gayle Rosander
- ☐ Caltrans, District 10
Tom Dumas
- ☐ Caltrans, District 11
Jacob Armstrong
- ☐ Caltrans, District 12
Maureen El Haraque
- Cal EPA
 - ☐ Air Resources Board
Airport & Freight
Cathi Siaminski
 - ☐ Transportation Projects
Nesamani Kalandiyur
 - ☐ Industrial/Energy Projects
Mike Tollstrup
 - ☒ State Water Resources Control Board
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CEQA Coordinator

- Regional Water Quality Control Board (RWQCB)
 - ☐ RWQCB 1
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 - ☐ RWQCB 4
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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



EDMUND G. BROWN JR.
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE of PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



Tulare County
Resource Management
Agency
KEN ALEX
DIRECTOR

Memorandum

FEB 15 2017

Date: February 10, 2017
To: All Reviewing Agencies
From: Scott Morgan, Director
Re: SCH # 2017011028
Matheny Tract Wastewater System Project

Pursuant to the attached letter, the Lead Agency has *extended* the review period for the above referenced project to **March 30, 2017** to accommodate the review process. All other project information remains the same.

cc: Hector Guerra
Tulare County Resource Management Agency
5961 So. Mooney Blvd.
Visalia, CA 93277-9394

From: Hector Guerra <HGuerra@co.tulare.ca.us>
Sent: Thursday, February 09, 2017 3:15 PM
To: Christine Asiata
Subject: Extension of NOP comment period SCH # 2017011028 Matheny Tract Wastewater System Project
Attachments: Request to OPR to extend NOP comment period for SCH2017211028.pdf

Good Afternoon Christine,

Attached is the County of Tulare's request to receive an extension for the comment period of the Notice of Preparation for the Matheny Tract Wastewater System Project (SCH # 2017011028).

We are also mailing the original letter via U.S. Postal Service.

Please feel free to contact me if you have any questions or comments, and thank you so much for your assistance in this matter.

Very Best Regards,

Hector Guerra
Chief, Environmental Planning Division
Tulare County Resource Management Agency Economic Development and Planning Branch
5961 So. Mooney Blvd.
Visalia, CA 93277-9394
(559) 624-7121

Governor's Office of Planning & Research

FEB 09 2017

STATE CLEARINGHOUSE



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

VISALIA, CA 93277

PHONE (559) 624-7000

FAX (559) 730-2653

Michael Washam

Economic Development and Planning

Reed Schenke

Public Works

Sherman Dix

Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 9, 2017

Christine Asiata Rodriguez
Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812

Governor's Office of Planning & Research
FEB 09 2017
STATE CLEARINGHOUSE

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project SCH # 2017011028

Attn: Ms. Asiata Rodriguez or other appropriate State Clearinghouse person:

The County of Tulare (County) is requesting the Notice of Preparation (NOP) comment period for the Matheny Tract Wastewater System Project (SCH # 2017011028) be extended from February 13, 2017 to March 30, 2017. If granted, we further request OPR/SCH notify the appropriate State agencies; for your convenience the State Clearinghouse NOP Distribution List is enclosed.

The County's request would allow the City of Tulare (City) to provide comments following receipt, review, and acceptance of an engineering report the City feels may be critical to providing important regarding the Project. As such, the City requested, and the County agrees, that extending the NOP comment period is in the best interest in preparing a Draft Environmental Impact Report (DEIR) for the Project.

Project Description - The project consists of a new wastewater system for the Matheny Tract community. The proposed project includes the construction of: a new gravity wastewater collection system throughout the Matheny Tract; one or more lift stations, including new points of electric service; sewer laterals from each property, with connection to each existing residence; and construction of 2,900 feet of 12-inch sewer main in Pratt Street from Matheny Tract to Paige Avenue to accommodate connection to the City of Tulare's existing 27-inch sewer main at Paige Avenue and K Street. Additional project-related components include: the in-place abandonment of existing septic systems and leach fields.

Project Objectives & Benefits - The proposed Project is intended to: (1) allow connection to the City of Tulare wastewater treatment facility; (2) result in abandonment of the current on-site septic tank/leach line systems; (3) provide a system that has the least potential to result in adverse environmental impacts and would provide an environmental benefit by eliminating wastewater discharge from existing on-site system tanks; (4) avert a stand-alone wastewater treatment facility; (5) protect groundwater supply; (6) result in cost efficiencies; and (7) be affordable and effective.

February 9, 2017

Page 2

Ms. Asiatia Rodriguez

Request for Extension of Notice of Preparation Comment Period

Matheny Tract Wastewater System Project SCH#2017011028

Potentially Significant Environmental Impacts - It is anticipated that potential environmental impacts which may occur include: Aesthetics, Air Quality, Greenhouse Gas Emissions, Hazards & Hazardous Materials, Noise, Traffic, Utilities/Service Systems, and Mandatory Findings of significance.

NOP Availability: Hard copies of the NOP have already been sent to your agency during our initial submittal of the Notice of Completion. As no changes have occurred, the original NOP remains valid.

Web Availability: The NOP can also be found at:

<http://www.tularecounty.ca.gov/rma/index.cfm/planning/environmental-planning/notice-of-preparation-nop/matheny-tract-wastewater-system-nop-pdf/>

Contact for More Information: Hector Guerra, Chief Environmental Planner (559) 624-7121.

Any written comments on the NOP should be sent to the Tulare County Resource Management Agency at the address noted above, to the attention of: Hector Guerra, Chief Environmental Planner. E-mails may be sent to: hguerra@co.tulare.ca.us.

Sincerely,



Michael Washam

Assistant Director

Economic Development and Planning

Enclosures: SCH# NOP Distribution List

NOP Distribution List

County: TULARE

SCH#

2017011028

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Elizabeth A. Fuchs

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Air Resources Board
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Regional Programs Unit
Division of Financial Assistance

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Cindy Forbes - Asst Deputy
Division of Drinking Water

☐ State Water Resources Control Board
Div. Drinking Water # _____

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Fresno Branch Office

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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

Tulare County
Association of Governments
Attn: Ted Smalley, Executive Director
210 N. Church Street, Suite B
Visalia, CA 93291

City of Tulare
Community Development Director
411 E. Kern Avenue
Tulare, CA 93274

San Joaquin Valley Unified
Air Pollution Control District
Permit Services – CEQA Division
1990 E. Gettysburg Ave.
Fresno, CA 93726

Santa Rosa Rancheria Tachi Yokut Tribe
Rueben Barrios Sr., Chairperson
P. O. Box 8
Lemoore, CA 93245

Table Mountain Rancheria
Leanne Walker-Grant, Chairperson
P.O. Box 410
Friant, CA, 93626

Tule River Indian Tribe
Tribal Archaeological Department
Joseph Garfield, Tribal Archaeologist
P. O. Box 589
Porterville, CA 93258

Wuksache Indian Tribe
John Sartuche
1028 East “K” Street
Visalia, CA 93292

Tulare County RMA –
Flood Control

Tulare County
Local Agency Formation Commission
210 N. Church Street, Suite B
Visalia, CA 93291

Southern California Edison
Attn: Calvin Rossi
2425 S. Blackstone St.
Tulare, CA 93274

Mr. David S. Hulse
Naval Facilities Engineering Command
Community Plans Liaison Officer (CPLO)
1220 Pacific Highway AM-3
San Diego, CA 92132

Santa Rosa Rancheria Tachi Yokut Tribe
Hector Franco, Cultural Director
P. O. Box 8
Lemoore, CA 93245

Table Mountain Rancheria
Bob Pennell, Cultural Resources Director
P.O. Box 410
Friant, CA, 93626

Tule River Indian Tribe
Environmental Department
Kerri Vera, Director
P. O. Box 589
Porterville, CA 93258

Tulare County HHSA - EHD

Tulare County RMA –
Public Works

Tulare County
Fire Warden
907 W. Visalia Road
Farmersville, CA 93223

Southern California Gas Company
404 N. Tipton Street
Visalia, CA 93292

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez, Chairperson
115 Radio Street
Bakersfield, CA, 93305

Santa Rosa Rancheria Tachi Yokut Tribe
Shana Powers, Cultural Specialist
P. O. Box 8
Lemoore, CA 93245

Tule River Indian Tribe
Neil Peyron, Chairperson
P. O. Box 589
Porterville, CA 93258

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas, CA 93906

Tulare County RMA - Fire



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Tulare County HHSA
Environmental Health Dept.
5957 S. Mooney Blvd.
Visalia, CA 93277

Via Interoffice Mail

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

To Whom It May Concern:

The County of Tulare (County) has requested and received approval by the State Clearinghouse to extend the Notice of Preparation (NOP) comment period for the Matheny Tract Wastewater System Project (SCH # 2017011028) from February 13, 2017 to March 30, 2017.

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Sincerely,

Jessica R. Willis

for Hector Guerra
Chief Environmental Planner
Economic Development and Planning



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

VISALIA, CA 93277

PHONE (559) 624-7000

FAX (559) 730-2653

Michael Washam

Economic Development and Planning

Reed Schenke

Public Works

Sherman Dix

Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Tulare County RMA
Fire Division
5957 S. Mooney Blvd.
Visalia, CA 93277

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Sincerely,

A handwritten signature in blue ink that reads "Jessica R. Willis".

 Hector Guerra
Chief Environmental Planner
Economic Development and Planning



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Tulare County RMA
Flood Control Division
5957 S. Mooney Blvd.
Visalia, CA 93277

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for Hector Guerra
Chief Environmental Planner
Economic Development and Planning



RESOURCE MANAGEMENT AGENCY

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FAX (559) 730-2653

Michael Washam

Economic Development and Planning

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Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Tulare County RMA
Public Works Division
5961 S. Mooney Blvd.
Visalia, CA 93277

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Sincerely,

for Hector Guerra
Chief Environmental Planner
Economic Development and Planning



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Economic Development and Planning

Reed Schenke

Public Works

Sherman Dix

Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Ted Smalley, Executive Director
Tulare County Association of Governments
210 N. Church St., Ste. B
Visalia, CA 93291

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

Attn: Mr. Smalley:

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Sincerely,

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for
Hector Guerra
Chief Environmental Planner
Economic Development and Planning



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Michael Washam

Economic Development and Planning

Reed Schenke

Public Works

Sherman Dix

Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Tulare County
Local Agency Formation Commission
210 N. Church Street, Suite B
Visalia, CA 93291

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To Whom It May Concern:

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Sincerely,

A handwritten signature in blue ink that reads "Jessica R. Willis".

for Hector Guerra
Chief Environmental Planner
Economic Development and Planning



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

VISALIA, CA 93277

PHONE (559) 624-7000

FAX (559) 730-2653

Michael Washam

Economic Development and Planning

Reed Schenke

Public Works

Sherman Dix

Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Tulare County
Fire Warden
907 W. Visalia Road
Farmersville, CA 93223

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

Attn: Fire Warden:

The County of Tulare (County) has requested and received approval by the State Clearinghouse to extend the Notice of Preparation (NOP) comment period for the Matheny Tract Wastewater System Project (SCH # 2017011028) from February 13, 2017 to March 30, 2017.

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Economic Development and Planning



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REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

City of Tulare
Community Development Director
411 E. Kern Avenue
Tulare, CA 93274

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

To Whom It May Concern:

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Sincerely,

Jessica R. Wells

for Hector Guerra
Chief Environmental Planner
Economic Development and Planning



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Southern California Edison
Attn: Calvin Rossi
2425 S. Blackstone St.
Tulare, CA 93274

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

Attn: Mr. Rossi:

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for Hector Guerra
Chief Environmental Planner
Economic Development and Planning



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Michael Washam

Economic Development and Planning

Reed Schenke

Public Works

Sherman Dix

Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Southern California Gas Company
404 N. Tipton Street
Visalia, CA 93292

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

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for
Hector Guerra
Chief Environmental Planner
Economic Development and Planning



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Michael Washam

Economic Development and Planning

Reed Schenke

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Sherman Dix

Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Ms. Patia Siong
San Joaquin Valley Unified
Air Pollution Control District
1990 E. Gettysburg Ave.
Fresno, CA 93726

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

Attn: Ms. Siong:

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for Hector Guerra
Chief Environmental Planner
Economic Development and Planning



RESOURCE MANAGEMENT AGENCY

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Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Mr. David S. Hulse
Naval Facilities Engineering Command
Community Plans Liaison Officer (CPLO)
1220 Pacific Highway AM-3
San Diego, CA 92132

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

Attn: Mr. Hulse:

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Sincerely,

Jessica R. Willis

for

Hector Guerra
Chief Environmental Planner
Economic Development and Planning



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VISALIA, CA 93277
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Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez, Chairperson
115 Radio Street
Bakersfield, CA, 93305

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

Attn: Chairperson Dominguez:

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Economic Development and Planning



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Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Santa Rosa Rancheria Tachi Yokut Tribe
Rueben Barrios Sr., Chairperson
P. O. Box 8
Lemoore, CA 93245

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

Attn: Chairperson Barrios:

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Chief Environmental Planner
Economic Development and Planning



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Michael Washam

Economic Development and Planning

Reed Schenke

Public Works

Sherman Dix

Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Santa Rosa Rancheria Tachi Yokut Tribe
Hector Franco, Cultural Director
P. O. Box 8
Lemoore, CA 93245

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

Attn: Cultural Director Franco:

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for Hector Guerra
Chief Environmental Planner
Economic Development and Planning



RESOURCE MANAGEMENT AGENCY

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Michael Washam

Economic Development and Planning

Reed Schenke

Public Works

Sherman Dix

Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Santa Rosa Rancheria Tachi Yokut Tribe
Shana Powers, Cultural Specialist
P. O. Box 8
Lemoore, CA 93245

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

Attn: Cultural Specialist Powers:

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607 Hector Guerra
Chief Environmental Planner
Economic Development and Planning



RESOURCE MANAGEMENT AGENCY

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Reed Schenke

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Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Tule River Indian Tribe
Neil Peyron, Chairperson
P. O. Box 589
Porterville, CA 93258

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

Attn: Chairperson Peyron:

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for Hector Guerra
Chief Environmental Planner
Economic Development and Planning



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REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Tule River Indian Tribe
Tribal Archaeological Department
Joseph Garfield, Tribal Archaeologist
P. O. Box 589
Porterville, CA 93258

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

Attn: Tribal Archaeologist Garfield:

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for Hector Guerra
Chief Environmental Planner
Economic Development and Planning



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Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Tule River Indian Tribe
Environmental Department
Kerri Vera, Director
P. O. Box 589
Porterville, CA 93258

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

Attn: Director Vera:

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Jessica R. Willis

for
Hector Guerra
Chief Environmental Planner
Economic Development and Planning



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Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, INTERIM DIRECTOR

February 13, 2017

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas, CA 93906

RE: Extended Comment Period of Notice of Preparation (NOP) for the Matheny Tract Wastewater System Project, SCH # 2017011028

Attn: Chairperson Woodrow:

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