COUNTY OF TULARE

RESOURCE MANAGEMENT AGENCY

5961 South Mooney Boulevard
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HARVEST POWER PROJECT

Draft Environmental Impact Report

March 2013

Prepared by

County of Tulare Resource Management Agency
Planning Branch
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[1] California Air Resources Board Website Data as of July 2012
[2] Ibid
[3] Ibid
[4] Data not available after 2001 as of July 2012.

Appendices

Appendix A: Notice of Preparation and Agency Comment Letters

Notice of Preparation

Agency Comment Letters

- Dave Singleton, Program Analyst, Native American Heritage Commission (Oct. 9, 2012)

- Allison Shuklian, Environmental Health Specialist, Tulare County Health & Human Services Agency (Oct. 23, 2012)

- David Deel Associate Transportation Planner, Caltrans District 6 (Oct. 30, 2012 - Ref. No. 2135-IGR/CEQA 6-TUL-137-22.22 +/-)

- Joy Isaacson, Waste Management Specialist, Permitting & Assistance Branch
  Waste Permitting, Compliance & Mitigation Division, CalRecycle (Oct. 30, 2012)

- David Warner, San Joaquin Valley Air Pollution Control District, Central Region,
  (Nov. 1, 2012 - District CEQA Ref. No. 2012 0634)

Appendix B: Biological Assessment Report

Live Oaks Associates, Inc., "Harvest Power Tulare Project Biological Evaluation Tulare County, California" (November 30, 2012)

Appendix C: Cultural Resources Assessment Report

Roper, C. Kristina, "A Cultural Resources Assessment for the Harvest Power Facility Upgrade, 24487 Road 140, Tulare, Tulare County, California" (November 27, 2012)

Appendix D: Geology and Soil Reports

BSK Associates, "Preliminary Soil and Geology Phase 1 Study, Proposed Anaerobic Gas Production Facility, Tulare County, California" (BSK E12-076-01F), (December 5, 2012)

Executive Summary

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 #2012101010) 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 Harvest Power Inc. Digester 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) circulated by Tulare County in Nov 2012.

PROJECT ELEMENTS

This EIR is in partial fulfillment of the CEQA requirements for the CEC grant funding process that is required by the CEC. This Project is located on an existing composting facility next to an existing dairy. The project itself encompasses two separate Special Use Permits, but is in effect a single linked project that has operational connectivity that can not be severed without losing operational efficiency, or the advantages of co-locating a digester next to a dairy and composting facility.

The Project includes the following three main elements:

1) Increase the amount of composting material from 156,000 ton per year to a maximum of 216,000 ton per year (combined green, food materials, and manure).

2) Construction of a low to high solids anaerobic digestion facility that handles 60,000 tons per year.

3) Construction of a Biogas Upgrading Unit, a Compressed Natural Gas (CNG) fueling station and a CHP.

PROJECT OBJECTIVES & BENEFITS

Objectives of the Project Applicant

The following objectives have been proposed by the project developer, as presented in the "Project Description".

- Implementation of AB 32
- Implementation of the Tulare County General Plan Climate Action Plan
- Create and Use Renewable Energy
- Expand production of organically certified soil
- Efficient Business Operations

Tulare County Objectives

Tulare County's General Plan Policies that are in line with the Project's purpose and objectives are as stated below:

Key General Plan Policies

AG-2.11 Energy Production
The County shall encourage and support the development of new agricultural related industries featuring alternative energy, utilization of agricultural waste and solar or wind farms.

ERM-4.6 Renewable Energy
The County shall support efforts, when appropriately sited, for the development and use of alternative energy resources, including renewable energy such as wind, solar, bio-fuels and co-generation.

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 §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.

PFS-5.3 Solid Waste Reduction
The County shall promote the maximum feasible use of solid waste reduction, recycling, and composting of waste, strive to reduce commercial and industrial waste on an annual basis, and pursue financing mechanisms for solid waste reduction programs.

Project Benefits Statement

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

1) Divert, Recycle, and Reuse: The Project will increase the diversion of green waste, food items, and manure from the typical waste stream and will compost and digest these items for recycled and / or energy production purposes.
2) Energy: The Project will create have a compressed natural gas (CNG) facility where it reuses methane / bio-gas and a combined heat and power unit (CHP)
3) Business and Employment: Added business revenue and employment in the County.
4) Offset Emissions: The opportunity with a digester and composting is to credit the facility with the reduced amount of emission the digested waste would otherwise create.

SUMMARY OF POTENTIAL IMPACTS & MITIGATION MEASURES

The following is a summary of the Mitigation Monitoring Program.

Table 1
Mitigation Monitoring Reporting Program Summary

Mitigation Measure #	Mitigation Measure	Timing of Compliance
3.1-1	If any exterior lighting is proposed, it shall be so adjusted as to deflect direct rays away from public roadways and adjacent properties.	Prior Issuance of Building Permit
3.1-2	The Anaerobic Digester and equipment shall be painted with muted colors, with a matte finish prior to the final inspection by the building department.	Prior Issuance of Building Permit
3.3-1	The applicant shall obtain all required permits from the Air District prior to implementing any elements of the proposed Project.	Prior to issuance of grading permits
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 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.	Prior to issuance of grading permits Ongoing monitoring during subsurface excavation
3.5-2	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	Prior to issuance of grading permits Ongoing monitoring during

Mitigation Measure #	Mitigation Measure	Timing of Compliance
	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.	subsurface excavation
3.5-3	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 owner 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.	Prior to issuance of grading permits Ongoing monitoring during subsurface excavation
3.6-1	The project shall incorporate all recommendations contained within the Preliminary Soil and Geology Phase 1 Study. These recommendations shall be stipulated in the construction contracts and specifications.	During project site design, construction, and operations,

Mitigation Measure #	Mitigation Measure	Timing of Compliance
		to reduce any potential geotechnical hazards at the project site
3.8-1	Hazardous Materials Business Plan from Environmental Health – Under the California Health Chapters 4 & 4.5, the facility is required to submit a business plan to Certified Unified Program Agency (CUPA). Environmental Health as the CUPA for Tulare County, requires a business plan for threshold quantities of: • 55 gallon of a liquid • 500 pounds of solids • 200 cubic yards of compressed gas	Prior to Occupancy
3.8-2	If more than 10,000 pounds of methane is produced in the process, the applicant is required to submit an application for a California Accidental Release Prevention (CalARP)/Risk Management Plan. The applicant shall immediately contact the Certified Unified Program Agency's (CUPA) inspector and notify the CalARP and submit an application.	Prior to Issuance of Building Permits
3.8-3	If the facility has/or proposes an above ground storage capacity over 1,320 gallons of a petroleum based product, the site shall be required to prepare a Spill Prevention Control and Countermeasure (SPCC) plan in accordance with the U.S. Code of Federal Regulations, Title 40, Part 112 (40CFR112) prior to the final inspection of the building permit. The plan shall be submitted to the Tulare County Environmental Health Services Division. The applicant shall contact the TCEHSD's CUPA inspector.	Prior to Issuance of Building Permits
3.9-1	The applicant shall receive all required permits from the RWQCB and the State Water Board prior to the issuance of building permits.	Prior to Issuance of Building Permits
3.9-2	The proposed Project shall comply with any new regulations brought by the RWQCB and/or the State Water Board. This includes, but is not limited to, regulations pertaining to the General Tentative Composting Order No. Dwq-2012-Xxxx for composting facilities.	Prior to Issuance of Building Permits
3.9-3	The applicant shall prepare and submit a SWPPP to Tulare County prior to the issuance of a building permit. This SWPPP shall be implemented and retain on site as part of business operations.	Prior to Issuance of Building Permits
3.9-4	That any tanks or basin lining be designed to RWQCB standards and approved by TCEHSD prior to the issuance of a building permit.	Prior to Issuance of Building Permits
3.9-5	That any piping be reviewed and approved by the TCEHSD to verify that the contents will not pollute the groundwater.	Prior to Issuance of Building Permits
3.9-6	The drainage system, including the berms, and the retention pond and drainage swale facilities shall be designed, and the plans stamped by a registered Professional Engineer, of whom must be registered and/or licensed in California, and have professional knowledge and experience in the field of on site drainage and detention facility design. The specifications and engineering data for the drainage system and detention facilities shall be submitted to the Public Works Department and TCEHSD for review and	Prior to Issuance of Building Permits

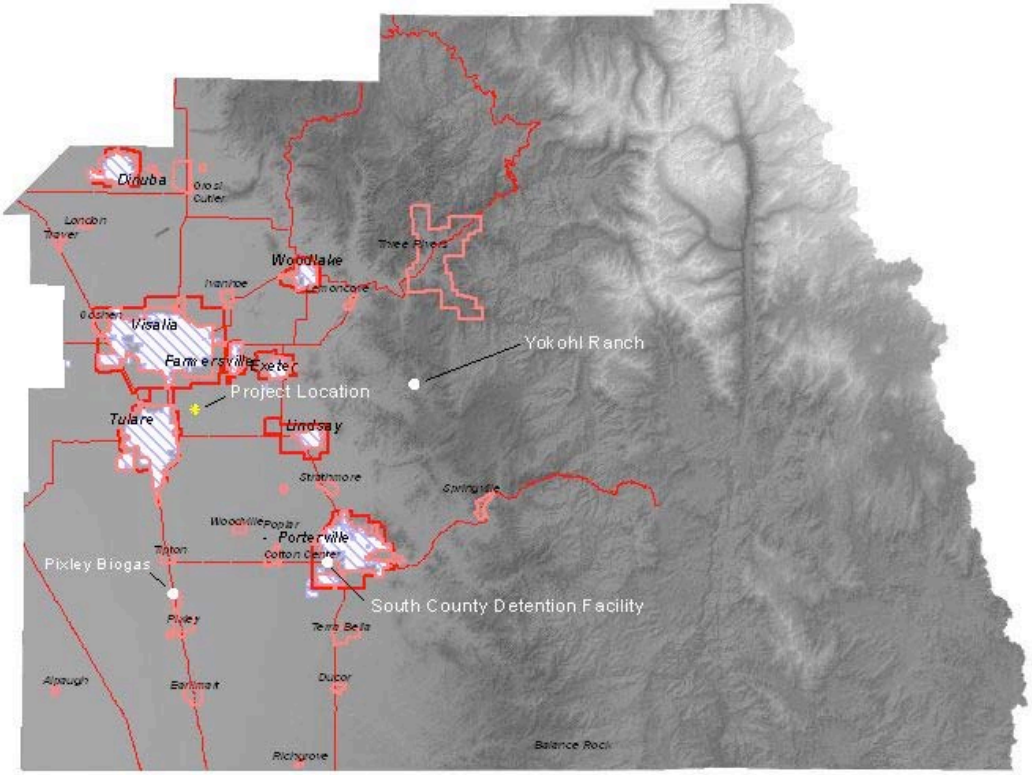
Mitigation Measure #	Mitigation Measure	Timing of Compliance
	approval prior to the issuance of a building permit.	
3.10-1	The composting and anaerobic digester operator shall adhere to all conditions of approval (COA's) noted in the Use Permits for the composting expansion and the anaerobic digester.	Prior to Issuance of Building Permits
3.14-1	Applicant shall provide an all weather access road to the site and any buildings affected by the Special Use Permit.	
3.14-2	Applicant shall submit plans for any new construction, remodeling, alterations, or building additions. All new construction shall meet 2007 Building Code, Fire Code, Mechanical Code, Electric Code and Plumbing Code, as applicable.	Prior to Issuance of Building Permits
3.14-3	If proposed use constitutes a change of occupancy, the existing building(s) affected by the change of occupancy and the Special Use Permit shall comply with 2007 Building and Fire Codes and other adopted standards.	Prior to Issuance of Building Permits
3.14-4	The Tulare County Fire Department shall be notified of the proposed start date of any processing, storage, or special use granted and mitigated prior to initiation of any building operations.	Prior to Occupancy
3.14-5	Violations of any of these conditions will result in Tulare County Fire Department's rescission of approval of the Special Use Permit.	Prior to Occupancy Fire Department Inspection for Violations
3.17-1	The Project shall comply with any conditions required by the RWQCB for wastewater treatment for on-site effluent treatment in lagoons or tanks. RWQCB conditions shall be forwarded to the Tulare County Planning Branch and the Environmental Health and Human Services Agency for appropriate action.	Prior to Occupancy that any RWQCB conditions be forwarded and considered.
3.17-2	The Project shall be required to obtain any applicable permit from the RWQCB as appropriate.	Prior to Issuance of Building Permits
3.17-3	The Project shall include all facilities as specified by the RWQCB and/or the Tulare County Planning Branch and the Environmental Health and Human Services Agency.	Prior to Issuance of Building Permits
3.17-4	The applicant shall prepare a SWPPP prior to construction and keep it on site per the NPDES requirements.	Prior to Issuance of Building Permits
3.17-5	The Project's drainage facilities and grading be designed to RWQCB, Tulare County Public Works, CalRecycle and Tulare County Environmental Health Standards and approved by a certified Professional Engineer. Certification shall indicate that the Project will accommodate 100 year, 24 hour storm events in accordance with the noted Agencies standards.	Prior to Issuance of Building Permits
3.17-6	The applicant shall obtain an updated Solid Waste Facility Permit (SWFP) per CCR, Title 27, Section 21570. A SWFP must be obtained prior to the issuance of building permits, the commencement of the additional composting, and the construction of the anaerobic digestion facility.	Prior to Issuance of Building Permits
3.18-1	Update the Odor Impact Management Plan (OIMP) required by Cal Recycle	Prior to

Mitigation Measure #	Mitigation Measure	Timing of Compliance
	at the facility to maintain its effectiveness despite the Project's increase in the tonnage processed and differing digestion material.	Issuance of Building Permits

SUMMARY OF CUMULATIVE IMPACTS

"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)."[1] Unless specifically, stated otherwise, the Cumulative Impact area for the Project is the County, based on the Tulare County 2030 General Plan Update (see **Figure 1**).

Figure 1
Tulare County Cumulative Analysis Area



[1] [1] 2012 CEQA Guidelines, Section 15355

The City's within the County that were included for the cumulative impact analysis are:

- City of Dinuba
- City of Woodlake
- City of Visalia
- City of Tulare
- City of Farmersville
- City of Exeter
- City of Lindsay
- City of Porterville
- City of Kingsburg
- City of Delano

Counties outside the County that were included for the impact analysis are:

- County of Fresno
- County of Kern
- County of Kings

Other projects discussed in the 2030 General Plan Update include:

- Goshen
- Yokohl Ranch
- Rancho Sierra
- Earlimart

Other Projects that may generate cumulative impacts include:

- Pena
- Pixeley Biogas
- South County Detention Facility

The basis for other resource specific cumulative impact analysis includes:

- For Air Quality and Green House Gas Emissions it is the San Joaquin Air Basin
- For Biological Resources it is the San Joaquin Valley
- For Hydrology it is the Tulare Lake Basin
- For Agriculture it is the State of California

Cumulative Impacts

There is only one cumulative significant and unavoidable impact and that is under the mandatory finding of significance for substantial adverse effects by indirect odor impacts on human beings though accumulation with other adjacent dairy odors.

Table 2
Checklist Items with Significant Unavoidable Impacts

Impact Section	Checklist Item #	Checklist Criteria
Mandatory	3.18	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Other cumulative impact items that are less than significant with mitigation include:

Table 3
Checklist Items with Less than Significant with Mitigation

Impact Section	Checklist Item #	Checklist Criteria
Aesthetics	3.1 c)	Substantially degrade the existing visual character or quality of the site and its surroundings?
Aesthetics	3.1 d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?
Air Quality	3.3 b)	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)?
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?
Cultural Resources	3.5 d)	Disturb any human remains, including those interred outside of formal cemeteries?
Hydrology	3.9 a)	Violate any water quality standards or waste discharge requirements?
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 g)	Comply with federal, state, and local statutes and regulations related to solid waste?

SUMMARY OF ALTERNATIVES

In the Alternatives Analysis, this Draft EIR identified and assessed 5 Alternatives to the proposed Project. These Alternatives are listed below:

Alternative 1: No Project
Alternative 2: Digester Only
Alternative 3: Compost Expansion Only
Alternative 4: Project on Adjacent Site
Alternative 5: Alternative Configuration

SIGNIFICANT UNAVOIDABLE IMPACTS

The following impact areas would have unavoidable and significant effects with full implementation of the Harvest Power Digester:

1) Project–specific cumulatively significant odor impacts from the same activities.

STATEMENT OF OVERRIDING CONSIDERATIONS

"The West Coast is deficient in food composting and anaerobic digestion facilities, although several composting and digestion facilities employing various technologies are either planned or under construction. Many traditional recycled materials are exported rather than utilized domestically at the same time that domestic recyclers are in need of more materials. While increasing diversion and recycling of more materials will generate more jobs domestically in the collection, transport, sorting and marketing areas, the material will need to be recycled domestically to have the greatest impact on job creation and economic activity."[2]

The findings within the Chapter Mandatory Findings of Significance show that the cumulative odor's environmental effects on humans will remain significant. This is true even after the imposition of mitigation and the examination of alternatives. Tulare County concludes that there are no feasible alternatives that can reduce these potentially significant and unavoidable impacts because the existing best odor management and dust control practices are in place. In order to mitigate to a less than significant level and having explored all feasible alternatives, cumulatively with the dairies, the Project will have some significant and unavoidable impact to humans. The Project provides public benefits, as stated in the Significant and Unavoidable Section that justifies proceeding with the Project, despite the environmental cost of the residual significant effects.

[2] Reducing Greenhouse Gas Emissions through Recycling and Composting, page 20

REFERENCES

Reducing Greenhouse Gas Emissions through Recycling and Composting, EPA, May 2011

2012 CEQA Guidelines

Introduction
Chapter 1

LOCAL REGULATORY CONTEXT

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

SCOPE AND METHODOLOGY

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

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

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

(1) Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.
(2) Identify the 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."[1]

[1] 2012 CEQA Guidelines, Section 15002 (a)

CEQA Guidelines Section 15002 (f) specifies that, "[a]n Environmental Impact Report (EIR) is the public document used by the governmental agency to analyze the significant environmental effects of a proposed project, to identify alternatives, and to disclose possible ways to reduce or avoid the possible environmental damage… An EIR is prepared when the public agency finds substantial evidence that the project may have a significant effect on the environment…. A significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project Further, when an EIR identifies a significant effect, the government agency approving the project must make findings on whether the adverse environmental effects have been substantially reduced or if not, why not."[2]

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

"(a) CEQA establishes a duty for public agencies to avoid or minimize environmental damage where feasible.
  (1) In regulating public or private activities, agencies are required to give major consideration to preventing environmental damage.
  (2) A public agency should not approve a project as proposed if there are feasible alternatives or mitigation measures available that would substantially lessen any significant effects that the project would have on the environment.

(b) In deciding whether changes in a project are feasible, an agency may consider specific economic, environmental, legal, social, and technological factors.

(c) The duty to prevent or minimize environmental damage is implemented through the findings required by Section 15091.

(d) CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors and in particular the goal of providing a decent home and satisfying living environment for every Californian. An agency shall prepare a statement of overriding considerations as described in Section 15093 to reflect the ultimate balancing of competing public objectives when the agency decides to approve a project that will cause one or more significant effects on the environment."[3]

IDENTIFICATION OF POTENTIALLY SIGNIFICANT IMPACTS

CEQA Guidelines Section 15002 (h) addresses potentially significant impacts, to wit, "CEQA requires more than merely preparing environmental documents. The EIR by itself does not control the way in which a project can be built or carried out. Rather, when an EIR shows that a project would 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

[2] 2012 CEQA Guidelines, Section 15002 (f)
[3] Ibid., Section 15021

changes;
(4) Choosing an alternative way of meeting the same need;
(5) Disapproving the project;
(6) Finding that changing or altering the project is not feasible;
(7) Finding that the unavoidable significant environmental damage is acceptable as provided in Section 15093."[4] (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 Section 21068). Significant impacts must be determined by applying explicit significance criteria to compare the future Plan conditions to the existing environmental setting (CEQA Guidelines Section 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 Section 15126.2, "[a]n EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected."[5]

MITIGATION MEASURES

CEQA Guidelines Section 15126.4 specifies that, "[a]n EIR shall describe feasible measures which could minimize significant adverse impacts, including where relevant, inefficient and unnecessary consumption of energy.

[4] 2012 CEQA Guidelines, Section 15002 (h)
[5] Ibid., Section 15126.2

(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 significant effects of the project as proposed. (*Stevens v. City of Glendale* (1981) 125 Cal.App.3d 986.)"[6]

"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… Mitigation measures are not required for effects which are not found to be significant… 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."[7]

[6] 2012 CEQA Guidelines, Section 15126.4
[7] Ibid.

ORGANIZATION OF THE EIR

CHAPTER 1

Chapter 1 of the *Draft EIR* provides a brief introduction to the Environmental Analysis Required by the California Environmental Quality Act (CEQA).

CHAPTER 2

Chapter 2 of the *Draft EIR* describes the proposed Project. The chapter also includes the objectives of the proposed Project. The environmental setting is described and the regulatory context within which the proposed project is evaluated is outlined.

CHAPTER 3

This Chapter includes the Environmental Analysis by topic, that is, each resource. Within each topic, the analysis includes the following:

Summary of Findings

Each chapter notes a summary of findings.

Introduction

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

Environmental Setting

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

Regulatory Setting

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

Project Impact Analysis

Each evaluation criteria will be reviewed for project specific potential impacts.

Cumulative Impact Analysis

Each evaluation criteria will be reviewed for cumulative potential impacts.

Mitigation Measures

Mitigation Measures will be proposed as deemed appropriate.

Conclusion

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

Definitions/Acronyms

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

References

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

CHAPTER 4

Chapter 4 summarizes the cumulative impacts addressed in Chapter 3.

CHAPTER 5

Chapter 5 describes and evaluates alternatives to the proposed Project. The proposed Project is compared to each alternative, and the potential environmental impacts of each are analyzed.

CHAPTER 6

Chapter 6 evaluates or describes CEQA-required subject areas: Economic Effects, Social Effects, and Growth Inducement.

CHAPTER 7

Chapter 7 evaluates or describes CEQA-required subject areas: Environmental Effects That Cannot be Avoided, Irreversible Impacts, and Statement of Overriding Considerations.

CHAPTER 8

Chapter 8 provides a mitigation monitoring and reporting program that summarizes the environmental issues, the significant mitigation measures, and the agency or agencies responsible for monitoring and reporting on the implementation of the mitigation measures.

CHAPTER 9

Chapter 9 outlines persons preparing the EIR and sources utilized in the Analysis.

APPENDICES

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

ENVIRONMENTAL REVIEW PROCESS

Pursuant to CEQA Guidelines §15082, the Notice of Preparation (NOP) for the Proposed Project was circulated for review and comment on October 3, 2012 and circulated for a 30-day comment period ending November 1, 2012. Tulare County RMA received five agency comments on the NOP. Comments were received from the following agencies, individuals, and/or organizations:

- Dave Singleton, Program Analyst, Native American Heritage Commission (Oct. 9, 2012)
- Allison Shuklian, Environmental Health Specialist, Tulare County Health & Human Services Agency (Oct. 23, 2012)
- David Deel Associate Transportation Planner, Caltrans District 6 (Oct. 30, 2012 - Ref. No. 2135-IGR/CEQA 6-TUL-137-22.22 +/-)
- Joy Isaacson, Waste Management Specialist, Permitting & Assistance Branch Waste Permitting, Compliance & Mitigation Division, CalRecycle (Oct. 30, 2012)
- David Warner, San Joaquin Valley Air Pollution Control District, Central Region, (Nov. 1, 2012 - District CEQA Ref. No. 2012 0634)

A copy of the NOP is included in **Appendix A,** including copies of letters received in response to the NOP.

Consistent with CEQA Guidelines Section 15103, "Responsible and Trustee Agencies, and the Office of Planning and Research shall provide a response to a Notice of Preparation to the Lead Agency within 30 days after 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 entitles have a response to make and may ignore a late response."[8]

A Scoping Meeting was duly noticed in a newspaper of general circulation (Visalia Times-Delta) and held on November 1, 2012. No comments were received during this meeting.

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

[8] 2012 CEQA Guidelines, Section 15103

As noted in CEQA Guidelines Section 15105 (a), a Draft EIR that is submitted to the State Clearinghouse shall have a minimum review period of 45 days, unless a shortened review period is approved for exceptional circumstances (CEQA, Section 15205(d)). This Draft EIR received approval from OPR for a shortened 30-day review, based on severe time constraints with regard to obtaining financing. This *Draft EIR* will be circulated publicly for comment on March 7, 2013. Following completion of the 30-day public review period ending April 5, 2013, staff will prepare responses to comments and a *Final EIR* will be prepared. The *Final EIR* will then be forwarded to the County of Tulare Planning Commission for consideration of certification. Notwithstanding an appeal to the County of Tulare Board of Supervisors, a Notice of Determination will then be filed with the County Tulare County Clerk and also forwarded to the State of California, Office of Planning and Research.

REFERENCES

2012 CEQA Guidelines

Project Description, Setting, & Objectives Chapter 2

INTRODUCTION

Harvest Power's, composting facility is located on the west side Road 140 between Avenues 248 and 240 in Tulare County, and operates under an existing special use permit (PSP 99-026(ZA)), and all the Conditions of Approval (COA) contained within the special use permit. The proposed facility is surrounded by agricultural uses, including dairies, farms, and vineyards.

PROJECT LOCATION

The Project site is located west of Road 140 between Avenues 240 and 248 in Tulare County, east of the City of Tulare (See figure 2-1). The proposed Project is in the Public Land Survey System of Sections 33, Township 19 South, Range 25 East, and can be found within the Tulare United States Geological Survey (USGS) 7.5 minute topographic quadrangle at:

Latitude: N 36° 13' 56.5782"
Longitude: W 119° 16' 10.5414

The site is a currently operating composting facility that accepts green waste, food waste, and manure on the entire 35 acre site. There are four APNs involved in the proposed expansion and new facility: 150-140-014, 150-140-016, 150-140-009, and the existing easement across 150-130-004. Expanded composting would occur on APNs 150-140-014 and 150-140-016, with the grind screen and green waste unloading occurring on APN 150-140-016. Immediately to the north is parcel 150-130-004. The parcel is currently used as a dairy operation and is not a part of this Project (NAPOP). The surrounding properties are similarly zoned AE-40 and are currently active farms. The Bio-digester and CNG station will be located on APNs 150-140-009.

VICINITY OF PROJECT SITE

State Route 99 is approximately 2 miles to the west. The major natural features in the area include the Sierra foothills located approximately 44 miles to the east. The proposed Project site is located approximately 57 miles east of the Coast Range and approximately 44 miles west of the Sierra Nevada Mountain Range. Bravo Lake is located approximately 20 miles to the southeast of the site and Lake Kaweah and Terminus Dam are located approximately 18 miles to the northeast of the proposed Project site. There are no major or minor faults within two miles of the proposed Project site.

Figure 2-1
Vicinity Map

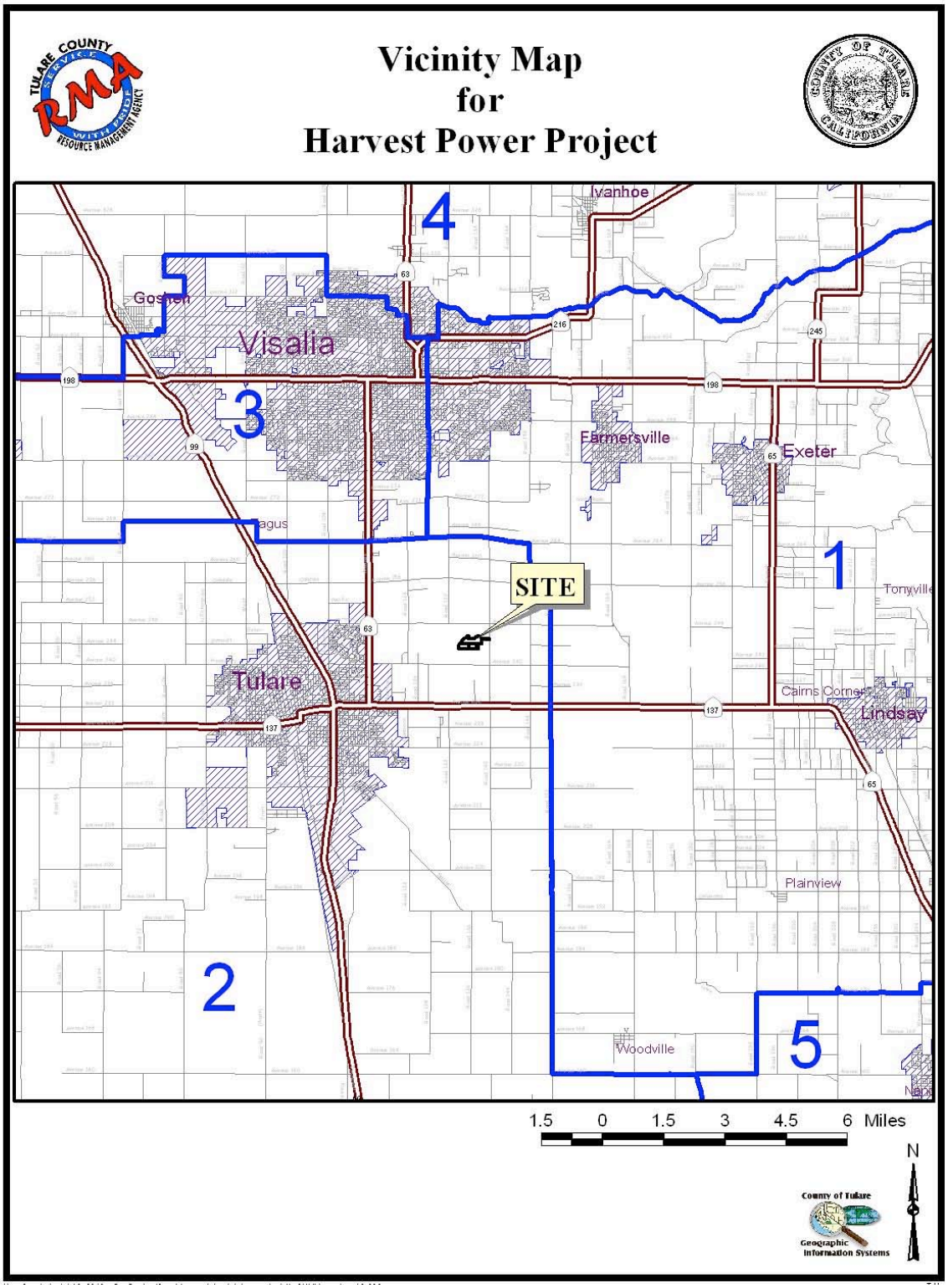


Figure 2-2
Aerial Photo

SURROUNDING LAND USE

The Harvest Power composting facility currently holds operating permits (PSP 92-091 and PSP 99-026 (ZA)) to compost green material, food, and dairy manure. The Project site is zoned AE-40 (Exclusive Agriculture, 40 acre minimum). The General Plan designation is Rural Valley Lands Plan (RVLP). The two larger parcels in the Project site are subject to Land Conservation (Williamson Act) contracts.

Surrounding land uses are primarily agricultural mixture of orange orchards, row crops and farmed lands; rural residences are located less than one mile south and east of the site. Rural residences are located less than one mile south and east of the site. Commercial businesses are located to the north and southeast of the proposed Project site. The Sundale Preschool and Elementary School are located less than one mile SE of the site, at the NW corner of the intersection of Road 140 and Avenue 240.

CURRENT OPERATIONS

The current Use Permit allows for 500 tons per day (TPD), and specifies storage of daily incoming ton limits of (8,000 tons), processing (17,500 tons), and finished product (5,000 tons). Currently, the composting facility is permitted to process 86,000 tons per year (TPY) of green and food material by the County, and CalRecyle's local enforcement agent (LEA), and a not to exceed limit of 156,000 tons per year of green and food material by the San Joaquin Valley Unified Air Control Pollution District (SJVACPD or Air District); however, the facility currently processes approximately 75,000 TPY of green and food material, which is approximately 48% of the permitted limit. Harvest Power will continue to operate as a windrow composting operation. The day-to-day operations include: a processing area for receiving compostable materials and processing them for the composting process; creating and maintaining compost piles with a windrow turner; monitoring temperature and moisture of the active composting piles to meet pathogen reduction and VOC reduction requirements and curing materials; and a finished product area where stabilized materials are stored prior to sale and transport off-site. All material produced at the facility has organic certification. The finished product markets will continue to include local nurseries, landscape services, and farmers. The facility currently accepts clean green materials, including tree trimmings, leaves and agricultural residue in addition to certain food materials, and dairy manure.

PROPOSED USE

The proposed Project includes expanding the amount of material at the site at a not to exceed limit of 216,000 TPY. The material to be processed will consist of 156,000 TPY of combined green and food materials and 60,000 TPY of manure. This Project will include either a low solids and/or high solids anaerobic digestion facility, a Biogas Upgrading Unit, and a Compressed Natural Gas (CNG) fueling station to produce and dispense CNG for sale, primarily to truckers making deliveries to the facility, and a Combined Heat and Power Unit for

cogeneration power usage. The anaerobic digester will be situated on approximately three (3.0) acres of the approximately 35.0 acre composting facility (on APN 150-140-009). This Project will include a high and/or low solids anaerobic digester which will produce biogas from the decomposition of organic feed stocks. The biogas will be conditioned to compressed natural gas using upgrading technology. An undetermined portion of the biogas maybe used in a combined heat and power unit to generate electricity.

The anaerobic digestion process converts the feedstock into bio-methane, or renewable natural gas. The anaerobic digester will process approximately 60,000 tons per year of organic materials primarily from green waste and food processing facilities, and other commercial enterprises and will include Fats, Oil, and Grease (FOG) from restaurants or food processing facilities. The residual material from the digestion process (digestate) will be in liquid and solid form. It will be applied to the composting material already located on the same property as the digester, or stored in a lined and covered pond if the weather does not allow for direct application of the liquid fraction of the digestate.

The energy produced at the facility will be used to create vehicle fuel through the construction of a CNG facility. The CNG refueling station will be constructed and operated in close proximity to the Harvest Power office. This station includes gas clean-up (which concentrates methane levels in the biogas), storage tanks, and a compression unit.

As part of the proposed Project, Harvest Power is requesting the construction of the following:

1) An above ground anaerobic digester
2) An adjacent effluent storage tank if needed
3) Control Room
4) Truck Ramp
5) Feed Hopper
6) Turbo Separator
7) Mixing Tank
8) Fat, Oil, and Grease (FOG) Tank
9) Biogas Upgrading Unit
10) Compressed Natural Gas (CNG) Compressor and Dryer Unit
11) CNG Storage Vessels
12) CNG Dispensary
13) A Combined Heat and Power Unit (CHP)
14) Emergency Flare
15) A Drainage Swale
16) Biofilter

Figure 2-3
LSAD Site Plan

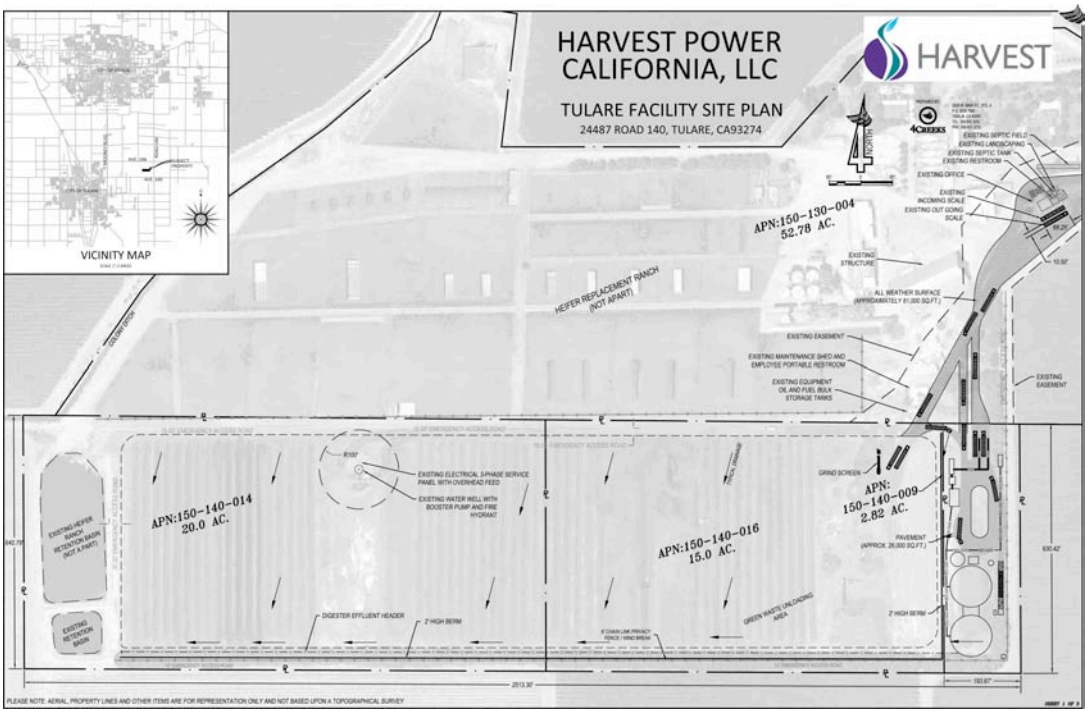


Figure 2-4
Office Plan

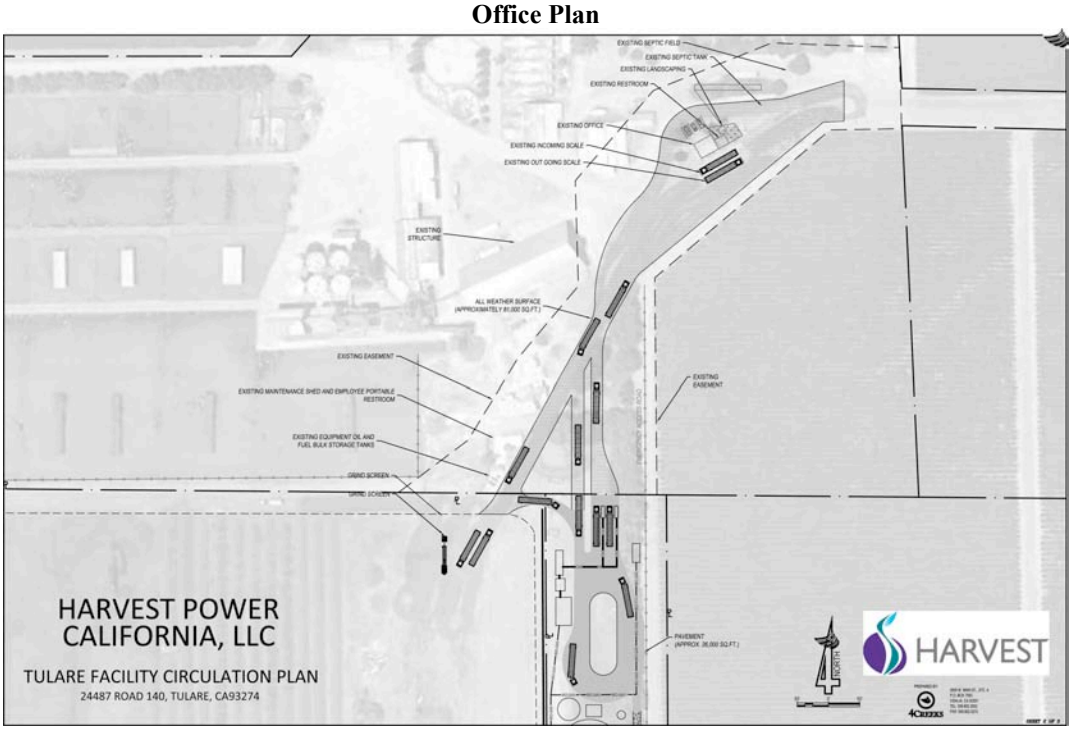


Figure 2-5
Digester Facilities Plan

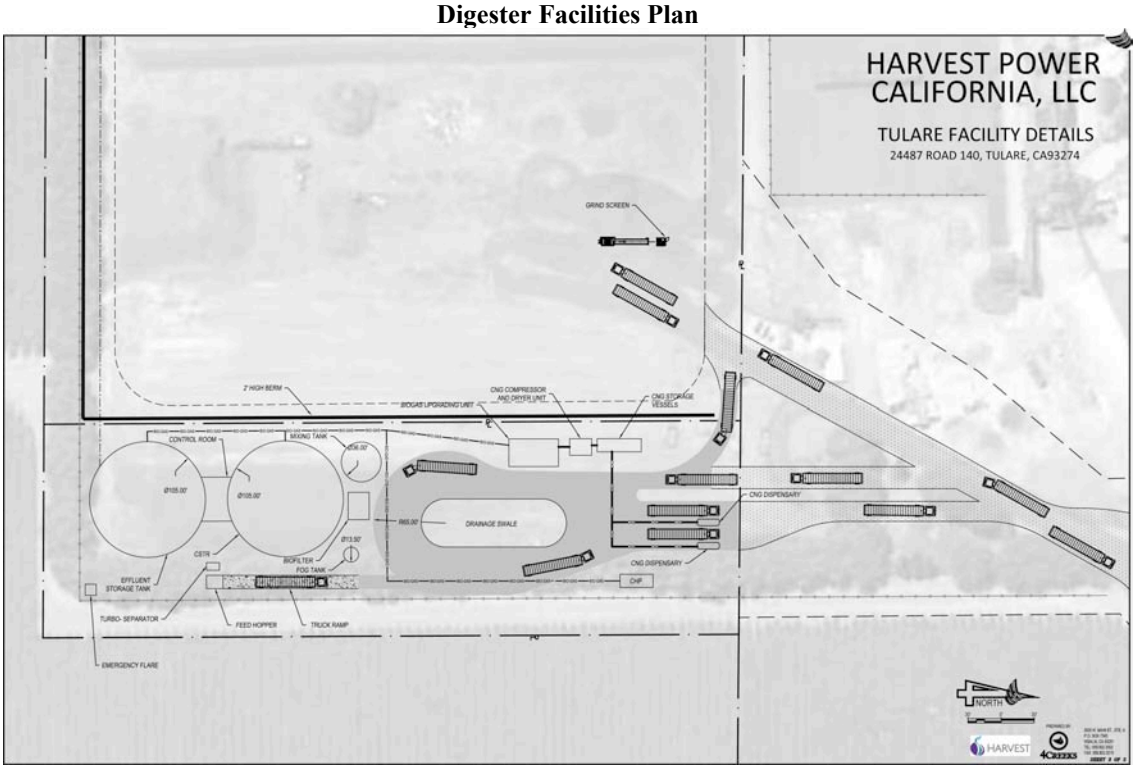


Figure 2-6
Site Plan

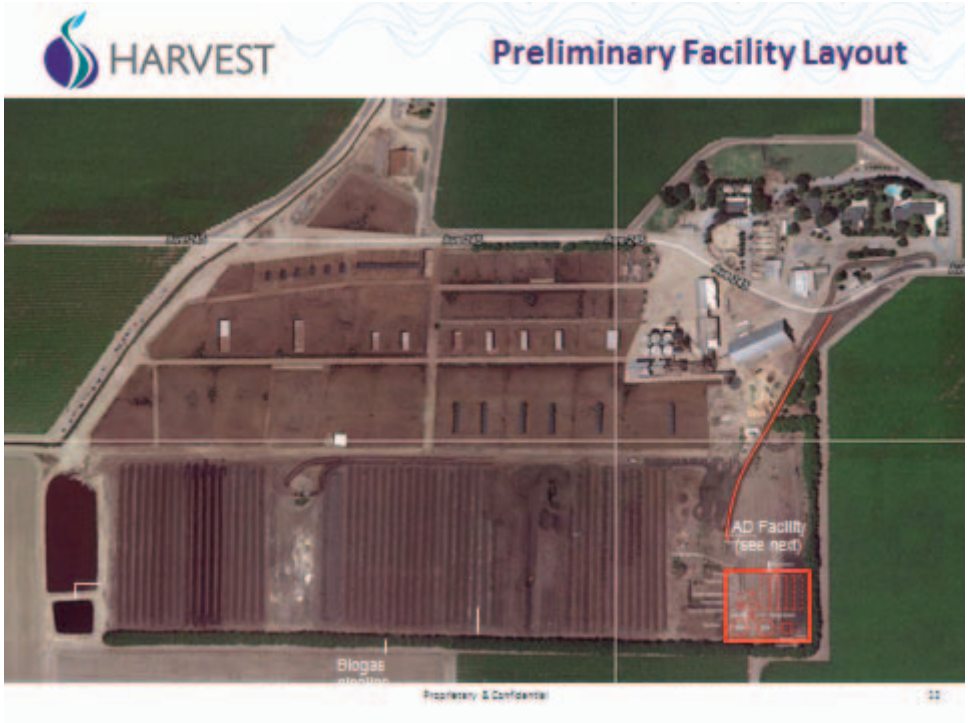


Figure 2-7
Site Plan (Alternate Technology)

REGULATORY SETTING

The materials handled on the site for the composting operation are specified in the "*materials on site*" section below. Amendments to PSP 99-026 (ZA) conditions of approval include an increase in tonnages and the type of material recycled at this facility. These changes are highlighted in the Land Use Section. Harvest Power is under obligation to continue to comply with all conditions of approval under PSP 99-026 (ZA). Other operations that require regulatory compliance include:

County Planning, Engineering and Building Departments

- Compliance with all general plan land uses, zoning regulations, and development codes
- Compliance with all fire codes for the composting and for design and use of CNG tanks
- Compliance with all engineering standards for biogas pipe design
- Compliance with all building requirements

Local utility and special district requirements

- Compliance with standards for connection to Southern California Edison for CHP
- Compliance with any setback requirements from the irrigation district

County Environmental Health & County Solids Waste Division

- Compliance with solid waste handling requirements
- Compliance with odor and vector controls
- Compliance with for all tanks including effluent storage, biodigester, and CNG tanks

CalRecycle

- Compliance with all operations

Regional Water Quality Control Board

- Compliance with all design Water Discharge Requirements (WDR) Requirements including National Pollution Discharge Elimination System (NPDES)
- Approval of all drainage facilities and design specs for concrete

San Joaquin Valley Air Pollution Control District

- Compliance with Fugitive Dust (Regulation VIII) Requirements
- Air Emissions permitting and regulation

EXISTING OPERATIONS

The existing facility includes composting of materials on site. The composted material includes: "green material" (including landscape and tree trimmings), food, and dairy manure materials. The Harvest Power composting facility is currently open Monday through Friday from 7:00 a.m. to 4:30 p.m. and on Saturdays from 8:00 a.m. until 4:00 p.m. The hours will remain the same. The anaerobic digester will be open for deliveries and processing during the same period.

Staffing Personnel

The composting facility currently employs approximately six (6) to nine (9) fulltime employees. The proposed Project will increase the total number of employees to 12. These employees will perform all operations and maintenance tasks related to the facility. The operations building for the existing facility, which is located on the parcel adjacent to the site, will be adequate for the operations of the existing compost Project. A new control room and additional staff will be added to the anaerobic digester facility.

Existing Utilities

- Water – there is an existing agricultural water well on site
- Water Fire – there is existing water well with booster pump and fire hydrant
- Sewer – there is an existing septic system for the office on site
- Drainage – there is existing drainage system with 2 foot high berms surrounding the site and piping / drains between the existing retention basin and the existing windrows
- Electricity – there is an existing 3 phase service panel with overhead feed

Operations Equipment

Initially, the existing off-road equipment used at the facility will also be used during operations of the proposed Project. If there are changes to the type of equipment, including number of units, the County shall review the appropriateness of additional equipment for conformance to the use permit. Current equipment on site includes the following:

- 5 loaders
- 1 grinder
- 3 power screens
- 1 Scarab windrow turner
- 2 water tractors
- 2 roll off trucks

DETAILED DESCRIPTION OF PROPOSED PROJECT

There are three main components of the proposed Project:

1) Expansion of materials accepted at the composting operations;
2) Construction of an anaerobic bio-digester to produce natural gas (biogas); and,
3) A compressed natural gas (CNG) fueling station and combined heat and cooling unit (CHP) exchange unit.

The combined feedstock and trucking operations are summarized in the spreadsheet below, and the associated details are documented in subsequent sections. The maximum amount of trips will not exceed 110 per day (see **Table 2-1**) or 18 per hour and will not operate above any thresholds of significance.[1]

Table 2-1
Tonnages and Truck Traffic
Tulare EIR & CUP Tonnages for Composting and the Anaerobic Digester Project

Description	Input Tonnages		Total	Total Trucks to Accommodate Operations	
Composting Operations	156,000 60,000	}	216,000	85	Separate Conditional Use Permit
Anaerobic Digester	60,000	→	60,000	25	Separate Conditional Use Permit

Source: Harvest Power, Inc. and TPG Associates

Composting Upgraded Operation (Component 1)

Harvest Power plans to continue to operate the composting operation on the same footprint (including the new anaerobic digestion equipment). Materials accepted at the facility will continue to be food material, yard material, and manure. The amount of food and yard material accepted will expand to at maximum limit of 156,000 tons per year, and 1,000 tons per day (during peak periods).. The upgraded tonnages are designed to be consistent with the current Air District permit for the food and yard portion of the facility.

Manure will be composted on site and limited to 60,000 tons per year, and the appropriate Air District permits will be obtained if the manure limits accepted at the facility require a permit amendment. Due to the site's space constraints, it is not anticipated that the total of 216,000 tons per year of combined green waste, food waste, and manure compost will be reached.. However, the separate limits allow maximum operational flexibility on the balance of these materials on the site.

Incoming material – Feedstock Processing Area

When material is delivered to the site, it is deposited in an area reserved for grinding. First, the material is screened for non-compostable materials. These materials are separated and placed in a covered dumpster. The green and commingled material is then put through the grinder and

[1] Appendix E: TPG Amended Traffic Study Letter , March 5, 2013

placed into windrows. Materials that are particularly woody in nature may be ground, screened and sent off site for hog fuel. All compostable material entering the site will be ground and incorporated within three days of receipt. As soon as it is formed into windrows, the composting process and conditions associated with this process will begin. The stockpiles will continue to be maintained below 15 feet in height. This area will adhere to all fire department requirements (see Fire Protection section, Chapter 3.14.)

Composting material – Windrow area

Once the material is placed into windrows it will be monitored for temperature and moisture and turned. This process ensures that it meets CalRecycle pathogen reduction and vector attraction reduction requirements; In addition to CalRecyle requirements, this process also reduces volatile organic compounds (VOC) as required by the Air District. This process is consistent with the current operations at the site. The Air District regulations will require a more prescribed watering regime to reduce air contaminants and significantly reduce dust through the use of additional watering and maintenance to minimize the tracking of material off site and for dust suppression during the dry months. Following the time and temperature requirements, the material will remain in the windrows until it is cured. This stage begins a drop in temperature of the composting piles and initiates the process of creating mature compost. This phase lasts 2-3 months and enables the compost to stabilize so that it is beneficial to plant growth. After curing, the material cannot begin composting again and thus is free from any potential odor or vector issues. The facility is currently accepting food and yard material, and the addition of digestate from the anaerobic digestion process will not alter the composting process. The management practices are designed to ensure that this material will not cause odor, vector issues and pathogen and that VOC reduction conditions are met or exceeded.

Overs

At the end of the curing phase, the material is run through a screen and the material is separated into fines and overs. The fines are sold as finished compost products, and the overs are either incorporated into the compost or reground for mulch product.

Finished product

The finished compost product is placed into separate piles where it is either sold directly in bulk, or mixed with other amendments to form specialized products. The finished compost material is stable, and certified organic. It is sold to landscapers and for agricultural uses. All material is sold well within the six month required hold time. There is a higher demand than there is supply of the finished compost. If the material is stockpiled temporarily for larger orders, the material will continued to be stored in piles below 10 feet in height.

Equipment

Initially, the same equipment will be used to manage the facility. Current equipment on site includes the following: five (5) loaders, a grinder, three (3) power screens, Scarab windrow turner, and two (2) water tractors, and two (2) roll off trucks.

Dust

Harvest Power has a number of dust control procedures in place, all of which will continue when the site is upgraded. The dust study that was conducted resulted in a number of conditions that are ongoing and will be continued: (See Air Quality Section)

- All travel ways and composting areas are watered at least twice per day during the dry season and as needed during the balance of the year to reduce the generation of dust;
- Misting system was installed and is operated on the scarab and can be installed on any other compost trucking equipment to capture fine dust particles; and
- Trees along the east and south property line can be misted during the dry season to help remove buildup of dust on the leaves.
- The LEA conducts regular inspections of the facility and dust migration is one of the items routinely checked.
- Dust fence was installed January 2011, along the southern and eastern boundary of the site to capture dust generated from the composting facility.
- Harvest Power inspects area for dust migration daily during the dry season and as needed the remainder of the year

Truck Traffic

The Harvest Power composting facility is currently accepting materials to be composted and selling bulk compost to the landscaping and agricultural community. All of the vehicles enter the site, are weighed, and then off-loaded. This process is accomplished within the same hour for each truck. At the upgraded facility, the maximum number of trucks will not exceed 85 at the composting facility. All truck trips include hauling of inbound (feedstock to be composted) and outbound (final compost) material for sale for agricultural use

Harvest Power maintains control over the number of vehicles entering and leaving the site. The facility operator contracts with each load entering and leaving the facility. The site receives very limited use from the general public. It is the intent of Harvest Power to be open for community drop off days, which will be subject to pre-approved by the County and CalRecycle's LEA. The flow of traffic into the site is as follows: The trucks enter the site, drive across the scale to be weighed, drive to the off-loading area where material is inspected, and off-loaded. The traffic at the site is controlled so that no trucks will back up onto Road 140. The outbound trucks enter the site, load finished compost material, are weighed, and leave the site.

Drainage and Water Quality

The composting facility is currently designed to protect ground and surface water. The compost pad is compacted and the site is bermed and sloped toward a compacted retention pond. The compaction and berm are currently, and will continue to be maintained, for operational reasons and to prevent any adverse effects to the groundwater. Any changes required by the Regional Water Quality Control Board will be implemented and maintained.

All internal runoff created by the facility operations and precipitation up to a 100-year, 24-hour storm event is currently, and will continue to be, contained on site. Water coming into contact with any feedstock or composting material will be prevented from leaving the site through berms and detention/retention ponds. Additionally, the compost pad areas will be sloped toward the retention pond, which is designed to collect water from the entire 35 acre site. The current berms and slopes will be modified to ensure that any changes to current conditions are met.

The facility will continue to comply with any regulations or procedures required by the State or Regional Water Quality Control Board. The drainage ponds will continue to be maintained to manage weed growth and prevent fly and mosquito breeding. Harvest Power will comply with the statewide general waiver order for composting facilities, including any future order approved and required by the State Water Quality Control Board (SWQCB).

Air Quality

Harvest Power currently holds Permit to Operate and is in compliance with the all San Joaquin Air Pollution Control District (SJVAPCD or Air District) rules/regulations. These regulations impose stringent operational parameters and require that emissions must not exceed current levels for existing composting facilities; Harvest Power falls within this category. This document contains conditions for equipment and composting operations to ensure that there will be no increased emissions from the current operations. The facility also complies with all air quality regulations that encompass more stringent requirements including a watering regimen designed to avoid increases in VOC emissions. These regulations also include provisions for dust control on-site and preventing/removing any dust that may be tracked off-site. The facility will also comply with the air quality regulations that encompass more stringent requirements on incorporation of incoming material (currently at a maximum of 10 days, moving to a maximum of three days when the incoming food and yard material reaches 100,000 tons per year for the composting facility). The facility will adhere to these operational conditions. The upgrades will be conducted in accordance with this permit with no modifications required by the Air District.

Odor

Harvest Power currently operates under an odor mitigation plan to comply with the CalRecycle Full Composting Facility permit. The Odor Impact Mitigation Plan (OIMP) includes contact information and specific protocols designed to prevent odor, and address odor concerns if they do arise. The OIMP focuses on processes to prevent odor from migrating off site during the feedstock delivery, composting and curing phases, and the protocol to address odor concerns should they arise. The processes include mixing the any food materials with green materials immediately upon arrival at the site, and incorporating into compost windrows as soon as possible, within a maximum of 36 hours. Watering and turning regimes increase the temperature and speed of breakdown of the material in the windrows, diminishing odor. A specific protocol for neighbor notification and response to neighbor issues is also included. This document will be updated with the permit modification required by CalRecycle for the upgraded feedstock volumes.

Greenhouse Gas Emissions

State of California regulations under its new climate change policies encourages the diversion of material from landfills to activities such as composting. At Harvest Power, green, food and manure materials are composted and reduce or replace landfilling. In addition, the end use of the material for agricultural and landscape uses adds organic matter and increases water holding capacity of the soil that enables the soil to sequester more carbon. Overall, the Harvest Power facility reduces greenhouse gases by the combination of removing these materials from the landfill and applying the finished compost product to the land.

Biodigester (Component 2)

The proposed Project includes a biodigester that processes gases from the anaerobic digester facility, which includes a low solids and/ or high digestion process. (See Figure 2-5) Two digestion processes low solids (LSAD) and High Solids (HSAD) or a hybrid of these could be included at the site. The digester facility will be designed to accept approximately 192 tons per day for six days per week for a total of approximately 60,000 tons per year of organic materials for the anaerobic digester. Feedstock for the facility will be sourced from Tulare and neighboring counties. Examples of this material will include scraps from local restaurants, institutions and cafeterias, food processing residuals, and restaurant fats, oils, and grease (FOG). Material will be delivered to the site and deposited immediately into two reception areas: a food waste reception area and an above ground grease tank.

Anaerobic Digester Feedstocks

A combination of Food, Green and Fats, Oils, and Greases will be utilized as feedstocks for the anaerobic digester. The total amount of material accepted into the digester will not exceed 60,000 tons per year. For the high solids digester option, approximately 75% of these materials will be composted after they are processed, and this material will also count toward the 156,000 tons per year limit.

Grease

Truckloads of grease feedstock that are mostly liquid in nature will be pumped directly from the delivering transportation unit into an above ground liquid reception tank with approximately 15,000 gallons of storage capacity using a flexible heavy duty hose with quick connect couplings. The grease will pass through a stone/grit separator before it is pumped to the mix tank. The grease tank will be a fixed mount roof with an internal heater that will keep the grease from solidifying.

Organic Separator

Food waste from the receiving container will be conveyed to a mechanical organic separator that will separate organics from non-organics. The organic fraction will then be pulverized into a liquid form with an intergraded hammer mill and pumped to the digester by an intergraded liquid

transfer pump. The inorganic fraction from the mechanical separator will be removed from the organic separator by intergraded take-away augers and discharged into a roll off bin that will be hauled to a nearby landfill.

Food and Green Waste

Truckloads of food waste will be off-loaded into an above-ground, liquid tight container for LSAD and immediately moved into the digester in the event it is processed as HSAD. Trucks will back up onto a sloped ramp leading to the receiving container. The food waste container will be equipped with a hydraulically operated cover that will close immediately after the truckload is emptied. The food waste receiving container will be fitted with discharge screws at the bottom to discharge the food waste into a mechanical organic separator.

All organic receiving equipment will be mounted on concrete with a perimeter splash lip to ensure any residual liquid is contained and pumped back into the storage vessels, to avoid contact with areas that are not lined or paved.

Mix Tank

Material from the organic separator and grease tank will be pumped to a mixing tank. Mixers in the tank will keep the feedstock homogenized. This tank will have a volume of approximately 150,000 gallons, providing a retention capacity of approximately four days.

The mixing/hydrolysis tank serves as a feed equalization and buffer holding tank. The substrate will be diluted to 12 to 14% Total Solids (TS) level with recycled digestate liquid and intermittently agitated with a mixer to maintain a homogenous mixture. The mixed material will be fed directly to the digester. The pump assemblies will be configured to feed the digester and to maintain an appropriate organic loading rate to the digester.

Figure 2-8
LSAD Process Flow Diagram

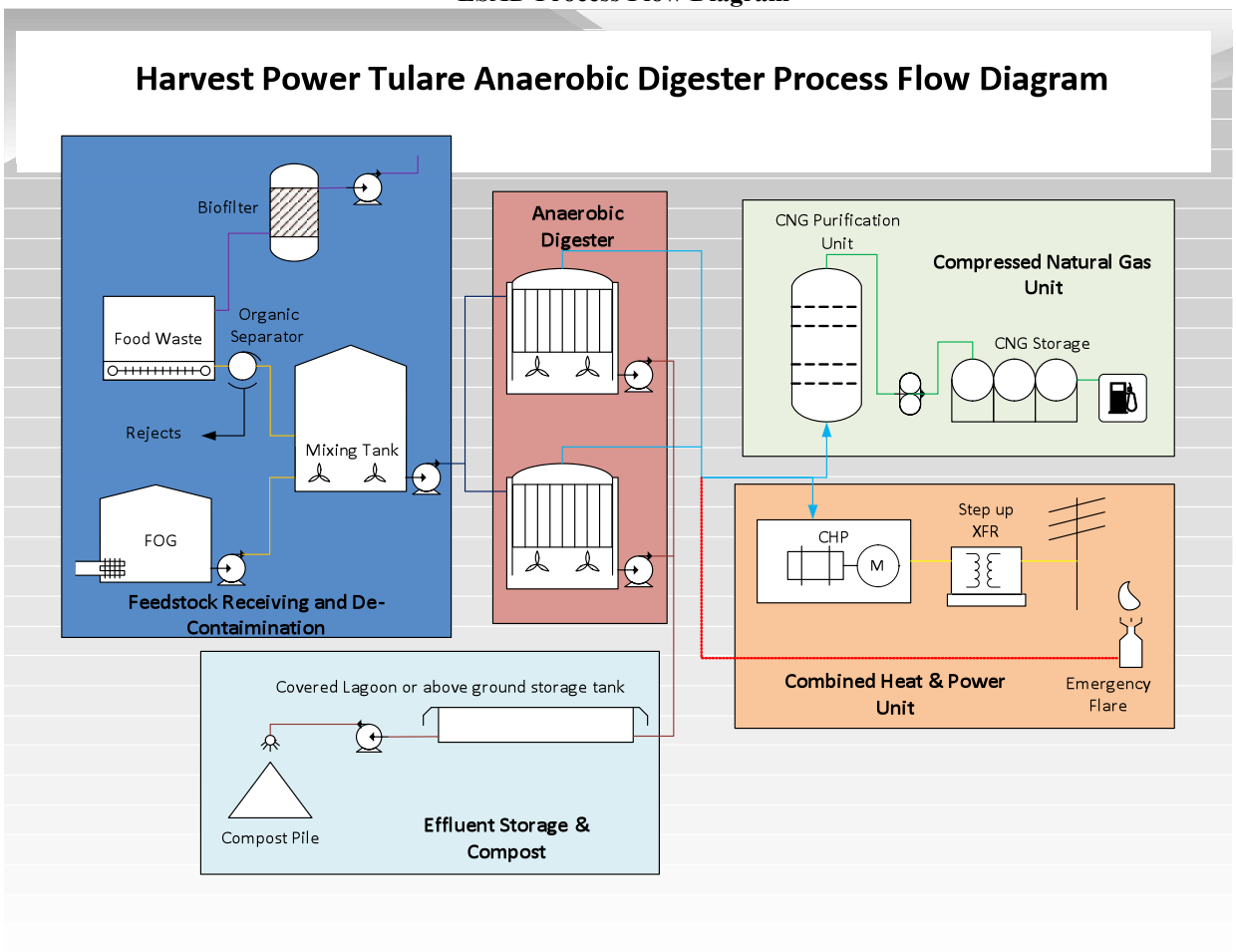
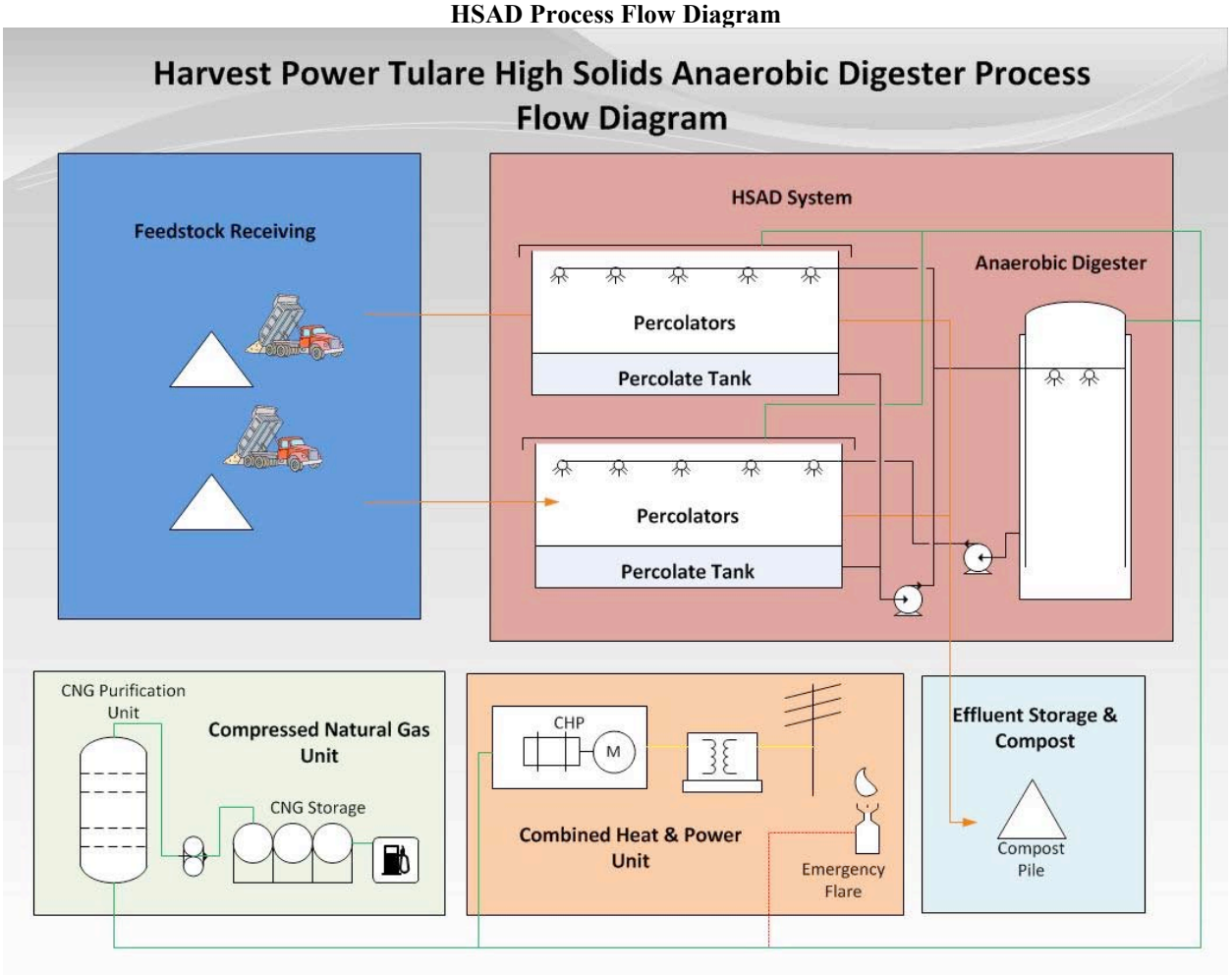


Figure 2-9
HSAD Process Flow Diagram



The High Solids Digestion Process

The high solids anaerobic digester will process a maximum of 60,000 tons per year of organic feedstocks primarily from food processing facilities, and other commercial enterprises and will include Fats, Oil, and Grease (FOG) from restaurants or food processing facilities and green waste. The anaerobic digester will produce approximately 300 scfm of biogas with 60% methane content.

The High Solids Anaerobic Digesters (HSAD) digesters are constructed of reinforced concrete. The biogas in the head space of the percolators is forwarded to the upgrading unit/CNG station and/or Combined Heat and Power (CHP) as the organic material breaks down and degrades. The dry anaerobic digestion technology is an innovative Batch Two-Stage High Solids Anaerobic Digestion (HSAD). The HSAD anaerobic digester design incorporates another important feature that enhances process control: buffer tanks for storage of hydrolysate between the two stages. The movement of hydrolysate between the buffer tanks and the methanation digesters can be regulated to continually maximize the output of the methanogenesis process, which allows for a more stable rate of biogas production that will be forwarded to the upgrading unit/CNG station

and or CHP. The hydorlysate is pumped from an above ground tank and sprinkled over the organic faction in the percolator. Biogas is also produced in the hydorlsate tank and forwarded onto the upgrading unit and/or CHP for producing energy.

Digestate Management

The composting windrow piles at the facility currently, and will continue to utilize pumped groundwater to maintain the desired moisture levels in the compost windrows. Maintenance of moisture levels is also required in order to control VOC emissions from the windrows according in accordance will Air District Rule 4566 (Organic Material Composting Operations).

Harvest Power plans to utilize digestate from the anaerobic digestion facility to augment the fresh water requirement. During the winter months, when it is too wet to apply this material to the compost piles, Harvest Power will store the digestate in a lined and covered lagoon or above ground storage tank for the LSAD technology. The HSAD technology will be transferred from the percolators and mixed in with compost using a front end loader. The liquid in the digestate form the HSAD will augment the water requirements for the composting facility

The liquid from the LSAD storage will be pumped onto the piles in the drier periods. In either case, the management of the digestate will protect ground and surface water. If an above ground effluent tank is utilized, it will be equipped with leak prevention and leak detection system consistent with Central Valley Regional Water Quality Board requirements. The HSAD will be transferred from the perculators to the composting facility and mixed in with a fount end loader to minimize fresh water consumption.

A separate pipeline for the LSAD digestate will run from the storage device along the northern boundary of the site to enable spreading of the digestate onto the windrows. At each windrow, a tee fitting will be used to serve as a connection point for saturating windrows.

Flare

An emergency flare will be provided as a precautionary measure as a back-up for the digestion system(s). An emergency flare is in place on site to flare biogas in the event the gas clean-up and compressor become inoperable or too much biogas is being generated. Each methane digester has some biogas storage capacity; as such the redundancy of two digesters eliminates the need to use the flare during maintenance events.

Air Quality

The digestion facility is enclosed and is gas-tight in order to capture valuable biogas. However; in the process of upgrading biogas into pure methane, a very small percentage is lost in the waste gas stream. This stream is directed to a biofilter to minimize the release of methane and hydrogen sulfide. To ensure prevention or reduction of air quality emissions , Harvest Power will comply with Air District rules/regulations to permit, meet, or exceed their requirements for the biofilter, flare, CNG facility, and, if electricity is produced, the CHP unit. The BACT policy

listed on the SJVAPCD's website explains how the Air District determines which technology applies (how to perform a top-down cost effective analysis). Any technology shown for VOC also controls CH4. Biofilters are very efficient in VOC removal (> 95% control if well maintained). A biofilter is extremely efficient in removing sulfur compounds (typically greater than 99.9% control efficiency)

Dust

There will be no additional dust generated from the anaerobic digester. All areas around the facility and the CNG fueling station will be paved or applied with an all-weather surface. If necessary, the all-weather surface roads will be watered, and the tires of the trucks rinsed to prevent dust or track-out.

Truck Traffic

The Harvest Power composting facility is currently accepting materials to be composted, and selling bulk compost to the landscaping and agricultural community. The anaerobic digestion facility will be accepting additional food waste materials.

The anaerobic digestion facility and CNG station may add truck trips to the site. This number is anticipated to be up to 25 additional trucks per day. The maximum total of truck trips to the facility including all operations will not exceed 110 trucks per day. The analysis provided in the Traffic Study includes up to 120 trucks per day in order to cover all contingencies, such as producing more CNG and the ability to service more local trucks with this service. As shown in **Table 2-1**, truck traffic generated by this project was studied for both direct and cumulative analysis. The maximum amount of trips will not exceed 110 per day, or 18 per hour, and will not operate above any thresholds of significance.[2]

Harvest Power maintains control over the number of vehicles entering and leaving the site. The facility operator contracts with each load entering and leaving the facility. The site receives very limited use from the general public. It is open for community drop off days which will be pre-approved by the County and CalRecycle's Local Enforcement Agency (LEA). The flow of traffic into the site is as follows. The trucks enter the site, drive across the scale to be weighed, drive to the off-loading area where material is inspected and, off-loaded. The traffic at the site is controlled so that no trucks will back up on Road 140.

Drainage and Water Quality

Harvest Power will comply with the any requirements of the Regional Water Quality Control Board. It is anticipated that the current site design, combined with the protections included in the energy facility design are sufficient to protect ground and surface water quality issues related to this facility. All internal runoff created by the facility operations and precipitation up to a 100-year, 24-hour storm event is currently, and will continue to be, contained on site. Water will be prevented from coming into contact with any feedstock through project design; in a rare case of

[2] Appendix E: TPG Amended Traffic Study Letter , March 5, 2013

that it does during the off-loading process, this liquid will be prevented from leaving the site and collected in a compacted the site's retention pond. The facility will continue to comply with any regulations or procedures required by the state or regional water quality control board. The drainage ponds will continue to be maintained to manage weed growth and prevent fly and mosquito breeding.

As described earlier in the document, all digestate (liquid and solid) from the facility will either be applied directly to the compost piles, substituting for water that would have been needed for the composting process. In periods of heavy rain, this digestate from the LSAD will be stored either in a lined and covered lagoon or storage tank and then applied to the compost piles during drier periods.

If storage tanks are chosen, they will be liquid-tight. In addition, they will be equipped with a leak detection system. A matt wicking material and a High Density Polyethylene (HDPE) liner with welded seams will be laid underneath the foundation, secured to the tank walls and connected to a visual monitoring well so that any leakage can be observed and contained. In the unlikely event of a leak, the inspection well also acts as an access to vacuum the leaking fluid and pump back into the tanks. This design has been implemented and approved by the Central Valley Regional Water Quality Control Board for similar anaerobic digester Projects in the Central Valley.

The material receiving device consists of a fully containerized unit. The organic separator will be liquid tight as well. As a precautionary measure, food waste or leaking material will be further contained by mounting the equipment on concrete foundations with elevated lip seals as to prevent any contamination from reaching the ground.

Odor

The anaerobic digestion facility is designed with a biofilter to ensure that no offensive odor migrates off site. This facility will also be required to obtain a full solid waste facility permit from CalRecycle and thus an odor impact mitigation plan will be required. The Odor Impact Mitigation Plan (OIMP) includes contact information and specific protocols designed to prevent odor and address odor concerns should they occur. The OIMP focuses on processes to prevent odor from migrating off site during feedstock delivery, the biofilter and protocol to address odor concerns should they occur. A specific protocol for neighbor notification and response to neighbor's concerns is also included.

Methane Biofilter

The nature of anaerobic digestion eliminates the emission of methane gas: the digestion facility is gas-tight in order to capture valuable biogas. However, in the process of upgrading biogas into pure methane, a very small percentage is lost in the waste gas stream. This stream is directed to a biofilter to minimize the release of methane.

Greenhouse Gas Emissions

The State of California encourages the division of material from landfills to activities such as anaerobic digestion through new climate change regulations. At this facility, the food and/or yard materials will be processed into energy and digestate to be composted, both processes replace landfilling. In addition, the ultimate end use of the material for agricultural and landscape uses adds organic matter and increases water holding capacity of the soil enable the soil to sequester more carbon. Furthermore, renewable CNG is considered by CARB to have the lowest carbon intensity of any transportation fuel.

Biogas and CNG Station and/or CHP Unit (Component 3)

CNG Station

The biogas from the digesters and effluent storage device will be upgraded to biomethane (methane content >97%) suitable for vehicle fuel and/or pipeline gas. Harvest Power will utilize a scrubbing technology for upgrading the biogas to bio-methane. The scrubbing process preferentially absorbs the undesirable gases such as CO_2 and H_2S into an absorbent solution. The scrubbing vessel facilitates gas absorption. The product gas (primarily methane)) is forwarded to the compression and dryer unit where the biomethane is dyed and pressurized to approximately 4,500 psig. The pressurized CNG stream leaving the compress and dryer is forward to above ground storage vessels where the CNG will be stored. The CNG from the storage vessels will be forwarded to dispensers that will be equipped with a card lock/card reader device to facilitate point of sale transactions.

Equipment

There will be two additional front end loaders required to manage the materials at the anaerobic digester. In addition, there is a compressor to clean and produce the CNG. The anticipated noise levels of this equipment are addressed in the noise report as part of this document.

Air Quality

The CNG station will comply with any and all requirements of the Air District. There are a number of these facilities already operational in the district.

Truck Traffic

It is anticipated that the majority of the trucks using the CNG refueling unit will be the same trucks delivering material to the site. Any additional trucks will not exceed the maximum limit calculated through the traffic thresholds and those listed in the previous traffic section The CNG station will serve trucks currently operating on CNG and enable others to convert to a more cost effective and cleaner fuel. Additional trucks that may be using the refueling station will already be traveling on or near Road 140.

Combined Heat & Power

The CHP (Combined Heat & Power) cogeneration equipment is a fully integrated power generation system. The system components are delivered to the site fully assembled and tested. The CHP module integrates all cogeneration components convert energy efficiently.

The CHP is an internal combustion engine designed to convert the biogas to electricity and is sized at 250kw. The generator connected to the CHP is generating 3-phase 480 volt power that will be connected to a step up transformer converting the 480 volts to 12,000 volts. It will connect to the distribution grid located on Road 140 (just in front of the property). All power generated will be sold under a long term power purchase agreement. The post combustion gases generated in the CHP by this combustion process will be forwarded to a Selective Catalyst Reduction System (SCR), which is integrated into the exhaust of the CHP. The SCR will meet or exceed standards required by the Air District's permitting process.

Project Construction

Construction of the proposed Project is anticipated to be completed in approximately 16 months. It will include construction of the all-weather surface (approximately three acres on parcel 150-140-009). It will also include pouring concrete for the pads, ramps, and for roadways, and include building the tanks and equipment to operate the digestion facility, including adding all the piping, CNG tank, CHP and pumps.

Construction Traffic

It is anticipated that proposed Project construction would require 15-20 construction workers resulting in an average of approximately 25 construction-related vehicle trips per day.

Material Staging

Construction of the proposed Project will require temporary staging and storage areas for the proposed Project materials and equipment. The materials staging and storage will be located onsite on a portion of the 35.0 acre site.

Construction Water Usage

The proposed Project will require approximately 2.6 acre-feet of water for dust control during the construction period.

Construction Waste Disposal

Any construction waste would be disposed at the Visalia or Teapot Dome Landfills.

OBJECTIVES OF PROPOSED PROJECT

Objective 1: Implementation of AB 32

AB 32 has defined plans and programs for year 2020, with the vision of year 2050 that sets a goal to have an 80% reduction of greenhouse gas (GHG) compared to the 1990 base year. AB 32 resulted in the adoption of the AB 32 Scoping Plan in 2008 that included a series of measures adopted by the California Air Resources Board (CARB) for high recycling/zero waste, which will affect the solid waste and recycling sector and local government. The key components of AB 32 include anaerobic digestion (AD), the increased use of compost, and extended producer responsibility (EPR). The proposed composting expansion, anaerobic digester, and CNG station are consistent with AB 32 measures of year 2020 and implements the objectives for the year 2050 goal.

Objective 2: General Plan Update 2030 – Climate Action Plan

Legislation mandating greenhouse gas reduction and 75% diversion of recyclable materials is resulting in residential collection of co-collected (comingled) food scraps and green materials at an increasing number of municipalities, combined with increased commercial food collection. The County of Tulare Board of Supervisors adopted its General Plan 2030 Update on August 28, 2012. The Update includes a Climate Action Plan (CAP) to address AB 32. This Climate Action Plan identifies specific General Plan policies that encourage solid waste reduction.

The proposed Project was developed to support and implement the efforts made by Tulare County to address climate change through its General Plan and Climate Action Plan. The proposed Project is intended to support and is integral to the diversion of organic materials (green waste and food waste) into composting in order to produce products that have a multitude of benefits to agriculture, such as water conservation, erosion control, disease suppression, and increased yield, beyond just reducing burning. In addition, the facility will assist in meeting state greenhouse gas emissions reductions by providing an alternative to diesel trucks coming to the facility, see Objective 3.

Objective 3: Renewable Energy

The proposed Project would add energy production capabilities on the current footprint of the composting facility pad. In addition, transportation fuel will be distributed through a CNG refueling station to provide fuel for trucks using the facility, and, to a limited extent, the general public. By producing energy as well as compost, the facility will bring additional renewable energy resources to Tulare County.

Objective 4: Expand production of organically certified soil

The existing composting operations produce organically certified soil. With increasing demand, this facility proposes to expand production to fill the needs of this particular niche market.

Objective 5: Efficient Business Operations

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

REFERENCES

Tulare County 2030 General Plan, August 2012

Tulare County 2030 General Plan Background Report, February 2010

2012 CEQA Guidelines

Aesthetics
Chapter 3.1

SUMMARY OF FINDINGS

Impacts of the proposed Project are determined to be less than significant with mitigation. A detailed review of potential impacts is provided in the analysis as follows.

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 15325). A "significant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project…" (CEQA Guidelines Section 15382). With respect to aesthetics, potentially significant CEQA impacts include visual impacts to scenic highways, the visual character of the site, and impacts from lighting.

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

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

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

Thresholds of Significance:
- Impact on a scenic vista
- Impact on a scenic highway
- Impact on visual quality
- Creation of glare or impacts on nighttime views

ENVIRONMENTAL SETTING

Visual Character of the Region

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

The Project site is located in Tulare County approximately 1.3 miles east of the City of Tulare. The site is relatively level, with an elevation of approximately 315 feet National Geodetic Vertical Datum (NGVD). Existing onsite structures include buildings, scales, heavy equipment, stockpiles of materials. There is a man-made drainage basin in the southwest corner, and an additional small waterhole is used for filling water trucks. The Project site is surrounded by a tall security/privacy fence with a row of trees outside the fenced site. Land uses in the Project vicinity are predominantly agricultural, with scattered rural residences. Surrounding agricultural lands consisting of citrus orchards, row crops, and other farmed lands.

[1] Tulare County 2030 General Plan RDEIR, page 3.1-11

Existing Visual Conditions

Figure 3.1-1
Aerial View of Project Site

Figure 3.1-2
View toward Project Site Entrance looking S from Road 140

Figure 3.1-3
View of Project Site from Road 140

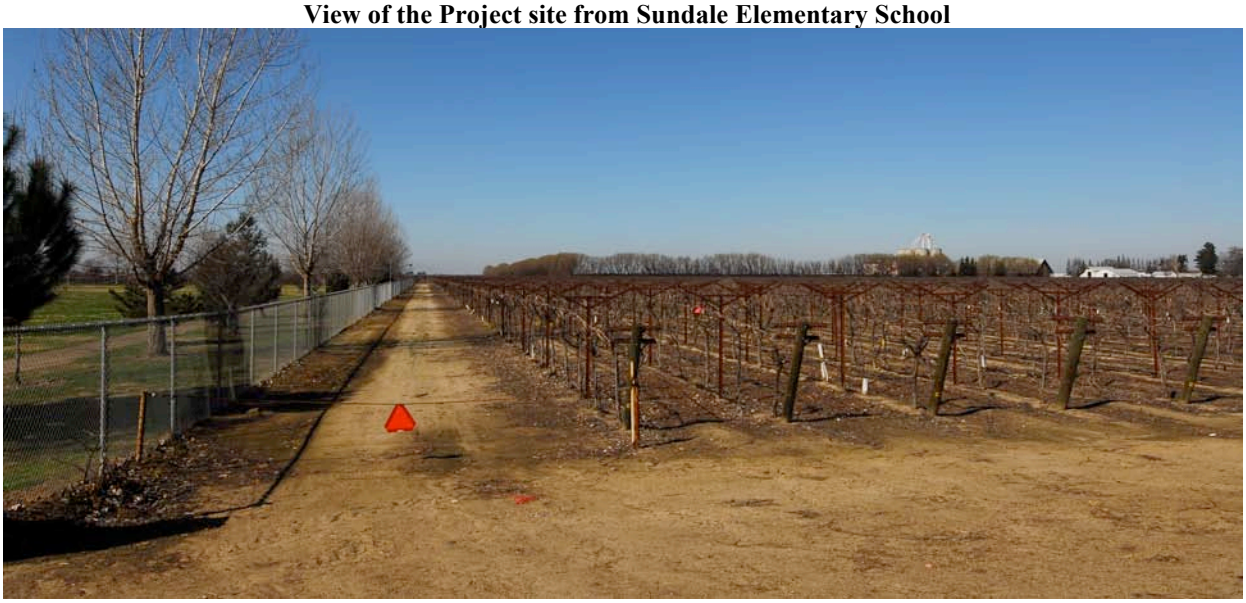
Figure 3.1-4
Photo of Dust Screen

Figure 3.1-5
Location of the CNG Station

Figure 3.1-6

Trees screening the project site at the proposed location of the Anaerobic Digester

Figure 3.1-7
View of the Project site from Sundale Elementary School



REGULATORY SETTING

The following environmental regulatory settings were summarized, in part, from information contained in the Tulare County General Plan Update 2030 Recirculated Draft EIR (February 2010).

Federal Agencies & Regulations

Federal regulations apply to projects on lands which are administered by federal agencies or are subject to federal funding. Aesthetics one of the required elements to be addressed in the National Environmental Policy Act (NEPA) of 1969 and Council of Environmental Quality (CEQ) regulations to implement NEPA under the heading of aesthetics. Visual impacts must be evaluated in determining the effects of a federal project or other project using federal funding. Further, Title 23, USC 109(h) cites "aesthetic values" as a matter that must be fully considered in developing a project."[2]

State Agencies & Regulations

CEQA

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."

Title 24 Outdoor Lighting Standards

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

Scenic Highway Program

The California Scenic Highway Program was established by the state Legislature in 1963 for the purpose of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been officially designated. The state laws governing the scenic highways program are found in

[2] Caltrans, "Visual and Aesthetics Review, http://www.dot.ca.gov/ser/vol1/sec3/community/ch27via/chap27via.htm

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.[3]

Local Policy & Regulations

The *Tulare County General Plan Update 2030 Part 1: Goals and Policies Report* (GPR) (August 2012) includes a number of goals and policies relating to scenic protection of County resources. The Goals and Policies Report Framework Concept # 3 addresses Scenic Landscapes:

> "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." [4]

<u>Scenic Roadways</u>

"Tulare County's existing General Plan identifies State designated scenic highways and County designated eligible highways. There are three highway segments designated as eligible by the State. These include State Route 198 from Visalia to Three Rivers, State Route 190 from Porterville to Ponderosa, and State Route 180 extending through Federal land in the northern portion of Tulare County. State Route 198 closely follows around Lake Kaweah and the Kaweah River, while State Route 190 follows around Lake Success and the Tule River. Both Scenic 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."[5]

[3] Tulare County 2030 General Plan, Goals and Policies Report, Part 1 Figure 7-1, page 7-5
[4] Tulare County 2030 General Plan, Goals and Policies Report, page A-2
[5] Tulare County 2030 General Plan, Goals and Policies Report, page 7-2

Figure 3.1-8
Scenic Highways

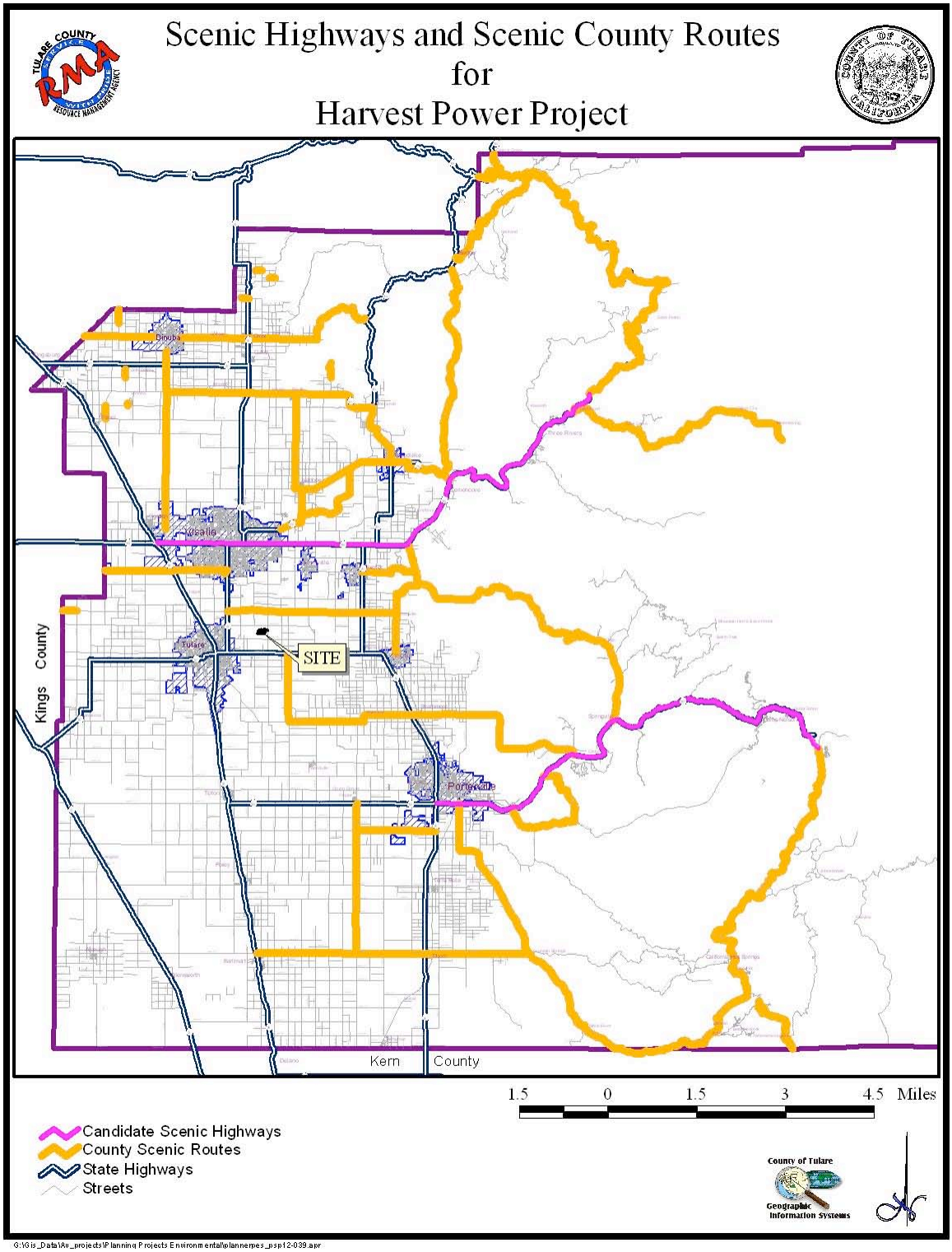
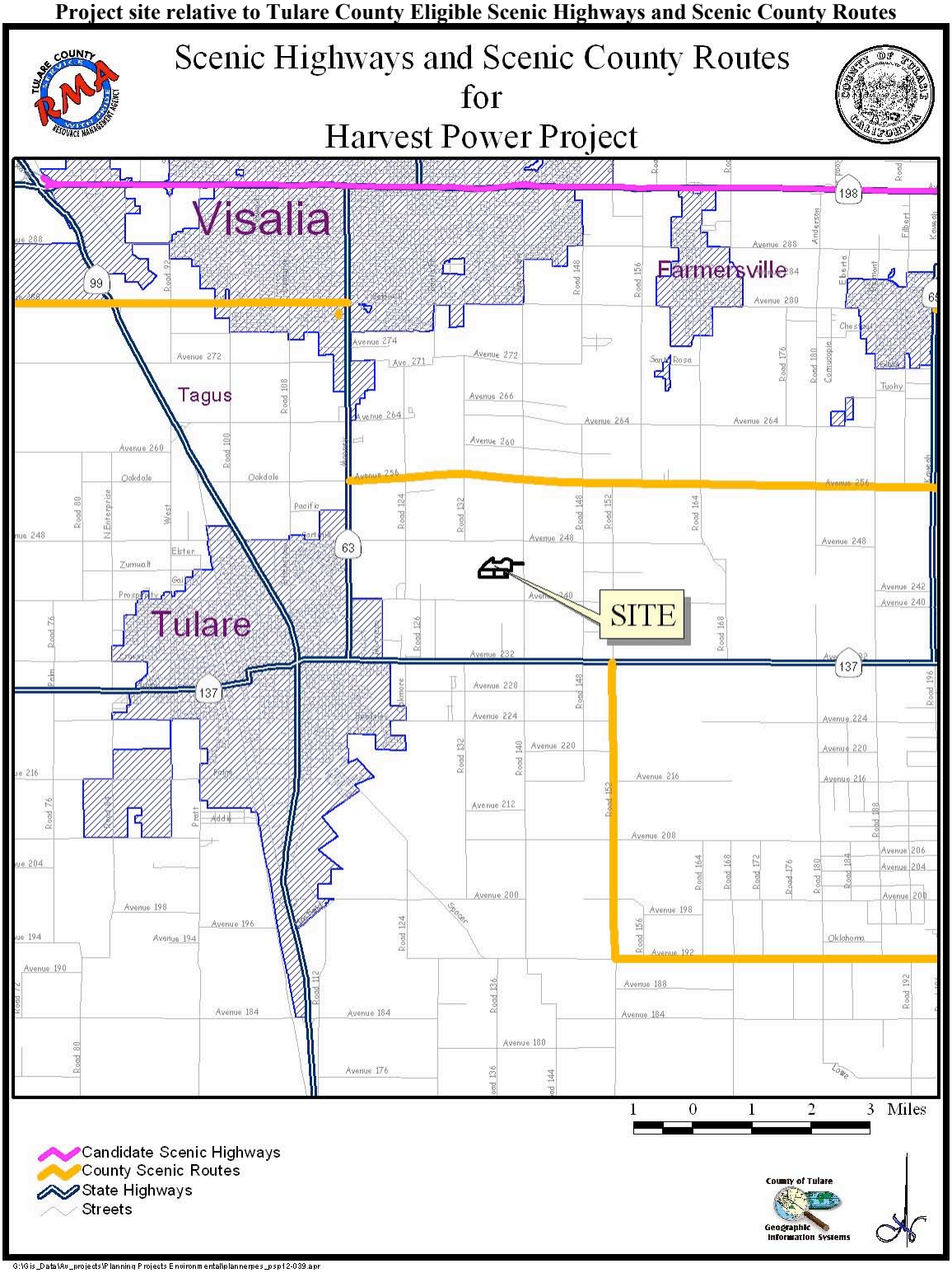


Figure 3.1-9
Project site relative to Tulare County Eligible Scenic Highways and Scenic County Routes



General Plan Policies

The General Plan Update provides specific goals for scenic protection of Natural and Working Landscapes (Goal SL-1); Scenic Roads and Highways (Goal SL-2); Community design (Goal SL-3); and design of infrastructure (Goal SL-4). Each of the stated goals has several associated policies designed to protect scenic landscapes, including working landscapes such as agricultural landscapes. Key policies related to the proposed Project include SL-1.1 and SL-1.2, designed to protect scenic natural and working landscapes, including agricultural landscapes.

SL-1.1 Natural Landscapes

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

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

SL-1.2 Working Landscapes

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

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

LU-7.14 Contextual and Compatible Design

The County shall ensure that new development respects Tulare County's heritage by requiring that development respond to its context, be compatible with the traditions and character of each community, and develop in an orderly fashion which is compatible with the scale of surrounding structures.

LU-7.6 Screening

The County shall require landscaping to adequately screen new industrial uses to minimize visual impacts.

SL-2.1 Designated Scenic Routes and Highways

The County shall protect views of natural and working landscapes along the County's highways and roads by maintaining a designated system of County scenic routes and State scenic highways by:

1. Requiring development within existing eligible State scenic highway corridors to adhere to land use and design standards and guidelines required by the State Scenic Highway Program,
2. Supporting and encouraging citizen initiatives working for formal designation of eligible segments of State Highway 198 and State Highway 190 as State scenic highways,
3. Formalizing a system of County scenic routes throughout the County (see Figure 3.1-8), and
4. Requiring development located within County scenic route corridors to adhere to local design guidelines and standards.

LU-7.19 Minimize Lighting Impacts

The County shall ensure that lighting in residential areas and along County roadways shall be designed to prevent artificial lighting from reflecting into adjacent natural or open space areas unless required for public safety.

Tulare County Zoning Ordinance

Fencing requirements Zoning Ordinance

The Harvest-Tulare Project is zoned AE-40 (Exclusive Agriculture, 40 acre minimum). In the event that additional fencing/screening be recommended to screen the view of the site, the relevant fencing requirements from the zoning ordinance are as follows:

AE-40 Zone, Section 9.7 Tulare County Zoning Ordinance:

F. Fences, walls and hedges shall be permitted. However, no solid fence, wall or hedge shall exceed three (3) feet in height within the area contiguous to two (2) intersecting streets which is described as follows: that area on the street side of a diagonal line connecting points, measured from the intersection corner, fifty (50) feet on a minor street side of the property and seventy (70) feet on a major street side of the property.

Tulare County Zoning Ordinance Section 15 p. 26 "Exceptions" C.2.m. and C.2.n:

C.2.m. Fences, hedges, landscape architectural features or guard railings for safety protection around depressed ramps, not more than three and one-half (3-1/2) feet in height, may be located in any front, side or rear yard.

C.2.n. A fence or wall not more than six (6) feet in height, or a hedge maintained so as not to exceed six (6) feet in height may be located along the side or rear lot lines, provided such fence, wall or hedge does not extend into the required front yard nor into the side yard required along the side street on a corner lot, which in this case shall also include that portion of the rear yard abutting the intersecting street wherein accessory buildings are prohibited…"

IMPACT EVALUATION

Will the proposed Project:

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

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

The Project site is located in the Valley portion of the County, which is relatively flat. There are no scenic vistas on the Project site or in the vicinity. On clear days there is a view of foothills and the Sierra Nevada Mountains that can be seen from many roads heading east. Because the Project is set back a considerable distance from the roads, and because there will no additional tall structures visible from nearby roads, the proposed Project will have no project specific impact related to this checklist item.

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

The geographic area of this cumulative analysis is the San Joaquin Valley portion of Tulare County.

The proposed Project (without mitigation), will be required to comply with the all requirements of the Tulare County General Plan 2030 Update. Because there are no scenic vistas on-site or in the Project vicinity, there will be no cumulative impacts related to this checklist item.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, there will be 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: ***No Impact***

There are no designated state scenic highways in the Project vicinity or in Tulare County. Portions of State Routes 190, 198, and 180 are eligible for state scenic highway designation, but are not located in the Project vicinity. The Project site is not visible from any of the Tulare County eligible state scenic highways. The nearest eligible scenic highway is State Highway 198, located approximately 6.25 miles north of the Project site.

The Tulare County General Plan Update 2030 also lists a series of Scenic County Routes, several of which are located in agricultural areas. The nearest Scenic County Roads to the Project site are Avenue 256, 1.4 miles north of the Project site, and a segment of Road 152 south of Avenue 232, approximately 2.25 miles southeast of the Project site.

The Project site is not visible from the eligible state scenic highways or scenic county roads. Therefore, the proposed Project will have no Project specific impact related to this checklist item.

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

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

The proposed Project (without mitigation), will be required to comply with the all requirements of Tulare County zoning, the California Scenic Highway Program (Caltrans) requirements for maintaining eligibility, and requirements the Scenic Landscape Element of the Tulare County 2030 General Plan Update.

There will be no cumulative impacts because the Project will not create visual impacts to scenic highways or scenic County roads.

Mitigation Measures:

None required.

Conclusion: ***No Impact***

As described above, there are no scenic resources which will cause cumulative visual impacts on the proposed Project site or vicinity.

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

Project Impact Analysis: ***Less than Significant Impact***

Agricultural landscapes throughout Tulare County are often scenic and visually appealing. While the Project is not located on a scenic county road or eligible state scenic highway, the Project site is located in an area with large agricultural fields under cultivation which are visually pleasing. There are several scattered rural residences to the south and east of the proposed Project, located within ½ mile of the Project site. The Sundale Elementary School is located approximately ½ mile southeast of the Project site.

The proposed Project will add a 38 feet tall anaerobic digester. This structure will be minimally visibility from Road 140 or Avenues 240, 245 or 248. Less than significant impacts related to this checklist item will occur, with mitigation.

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 the proposed Project would not create any project specific visual impacts, the propose Project would not contribute to cumulate visual impacts.

Mitigation Measures:

None Required.

Conclusion: ***Less than Significant Impact***

As designed, the proposed Project will have a less than significant impact on visual character on the proposed Project site and in the vicinity.

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

Project Impact Analysis: ***Less than Significant Impact with Mitigation***

Lighting impacts are often associated with the use of artificial light during the evening and nighttime hours. Impacts could potentially include light emanating from building interiors (seen through windows) and light from exterior sources, including building or parking lot lighting, security lighting, street lighting, etc. To ensure lighting impacts will be minimized, mitigation measure 3.1-1 is outlined below.

Glare is typically a daytime occurrence caused by light reflecting off highly polished surfaces such as window glass or polished metallic surfaces. It is not anticipated that the new structures will result in appreciable glare, since the structures will not have highly reflective surfaces. To ensure the minimization of glare, mitigation measure 3.1-2 is outlined below.

With these mitigation measures, less than significant project specific impacts related to this checklist item will occur.

Cumulative Impact Analysis: ***Less than Significant Impact***

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

The proposed Project (with mitigation), will not result in any significant off-site impacts. Therefore, *no significant cumulative impacts* related to this checklist item will occur.

Mitigation Measures:

3.1-1 All exterior lighting shall be so adjusted as to deflect direct rays away from public roadways and adjacent properties.

3.1-2 The Anaerobic Digester and equipment shall be painted with muted colors, with a matte finish prior to the final inspection by the building department.

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

As noted above, no Project specific or cumulative impacts related to this checklist item will occur.

DEFINITIONS/ACRONYMS

Definitions

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

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

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

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

REFERENCES

Caltrans, California Scenic Highway Program: "Frequently Asked Questions," http://www.dot.ca.gov/hq/LandArch/scenic/faq.htm

Caltrans, "Visual and Aesthetics Review," in Standard Environmental Reference, Chapter 27, http://www.dot.ca.gov/ser/vol1/sec3/community/ ch27via/chap27via.htm

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

Tulare County 2030 General Plan, August 2012

Tulare County 2030 General Plan: Recirculated Draft EIR (RDEIR), February 2010

2012 CEQA Guidelines

Agricultural Land and Forestry Resources Chapter 3.2

SUMMARY OF FINDINGS

The proposed Project will result in less than significant impacts to Agricultural Land and Forestry Resources. No mitigation measures will be required. A detailed review of potential impacts is provided in the analysis below.

INTRODUCTION

California Environmental Quality Act (CEQA) Requirements

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

As noted in 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 Agricultural Lands and Forestry Resources in the County. The regulatory setting provides a description of applicable Federal,

[1] 2012 CEQA Guidelines, Section 15126.2 (a)

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

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

ENVIRONMENTAL SETTING

"Tulare County exhibits a diverse ecosystems landscape created through the extensive amount of topographic relief (elevations range from approximately 200 to 14,000 feet above sea level). The County is essentially divided into three eco-regions. The majority of the western portion of the County comprises the Great Valley Section, the majority of the eastern portion of the County is in the Sierra Nevada Section, and a small section between these two sections comprises the Sierra Nevada Foothill Area.[2]

Agricultural Productivity

The Project site is located in the San Joaquin Valley portion of Tulare County. This area is characterized by rich, highly productive farmland. Agriculture is the most important sector in Tulare County's economy, and agriculture and related industries make Tulare County one of the two most productive agricultural counties in the United States, according to Tulare County Farm Bureau statistics.[3][4] Agricultural lands (crop and commodity production and grazing) also provide the County's most visible source of open space lands. As such, the protection of agricultural lands and continued growth and production of agriculture industries is essential to all County residents."[5]

The *2011 Tulare County Annual Crop and Livestock Report* listed Tulare County's total gross production value for 2011 as $5,629,396,000. Milk was the leading agricultural commodity in Tulare County in 2011, representing 37% of the total crop and livestock value. The 2011 report

[2] Tulare County 2030 General Plan RDEIR, page 3.11-5
[3] Tulare County Farm Bureau, "Agricultural Facts," http://www.tulcofb.org/index.php?page=agfacts
[4] Tulare County Agricultural Commissioner, 2011 Tulare County Agricultural Crop and Livestock Report, http://agcomm.co.tulare.ca.us/default/index.cfm/standards-and-quarantine/crop-reports1/
[5] Tulare County 2030 General Plan, page 3-4

listed over 120 different commodities, forty-three of which had a gross value greater than $1 million. The top agricultural commodities in the County in 2011, based on total/gross value were milk, oranges, cattle, grapes, corn – grain silage, and alfalfa (source: 2011 Tulare County Annual Crop and Livestock Report prepared by the office of the Tulare County Agricultural Commissioner/Sealer, published June 2012).

According to the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP, 2010), agricultural lands in Tulare County included 859,991 acres of important farmland (designated as FMMP Prime, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance) and 440,042 acres of grazing land, for a total of 1,300,033 acres of agricultural land.

According to the Tulare County Subvention Report (November 21, 2012), Much of Tulare County's farmland is under California Land Conservation Act (Williamson Act) contracts, a program designed to prevent premature conversion of farmland to residential or other urban uses. As of January 1, 2012, there were 1,096,299 acres of farmland under Williamson Act or Farmland Security Zone contracts in Tulare County. This total includes 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 6040 acres Williamson Act prime contracted land in nonrenewal and 7513 acres of Williamson Act nonprime in nonrenewal.)

Table 3.2-1:
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

**Prime total includes 6039.75 acres in nonrenewal; Nonprime total includes 7512.56 acres in nonrenewal*
Source: Data compiled from 2012 Tulare County Subvention Report

Important Farmland Trends

Using data collected by the FMMP, farmland acreage has been consistently decreasing for each two-year period since 1998. 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.[6]

"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)."[7]

[6] California Department of Conservation, Division of Land Resource Protection, FMMP, "Tulare County 2008-2010 Land Use Conversion" Report, Table A-44
[7] Tulare County 2030 General Plan RDEIR, page 3.10 to 3.13

Figure 3.2-1
Agriculture Preserve Map

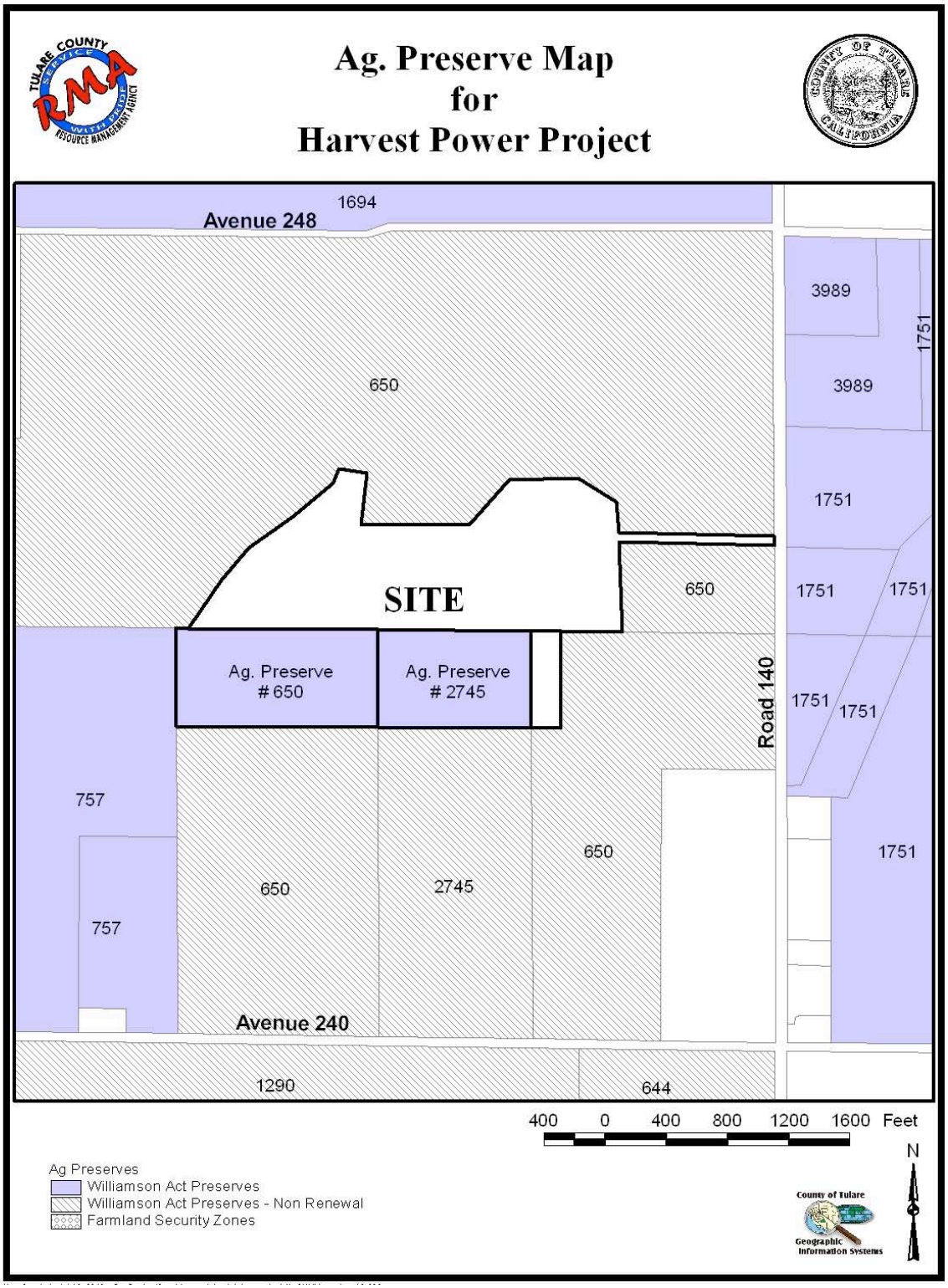
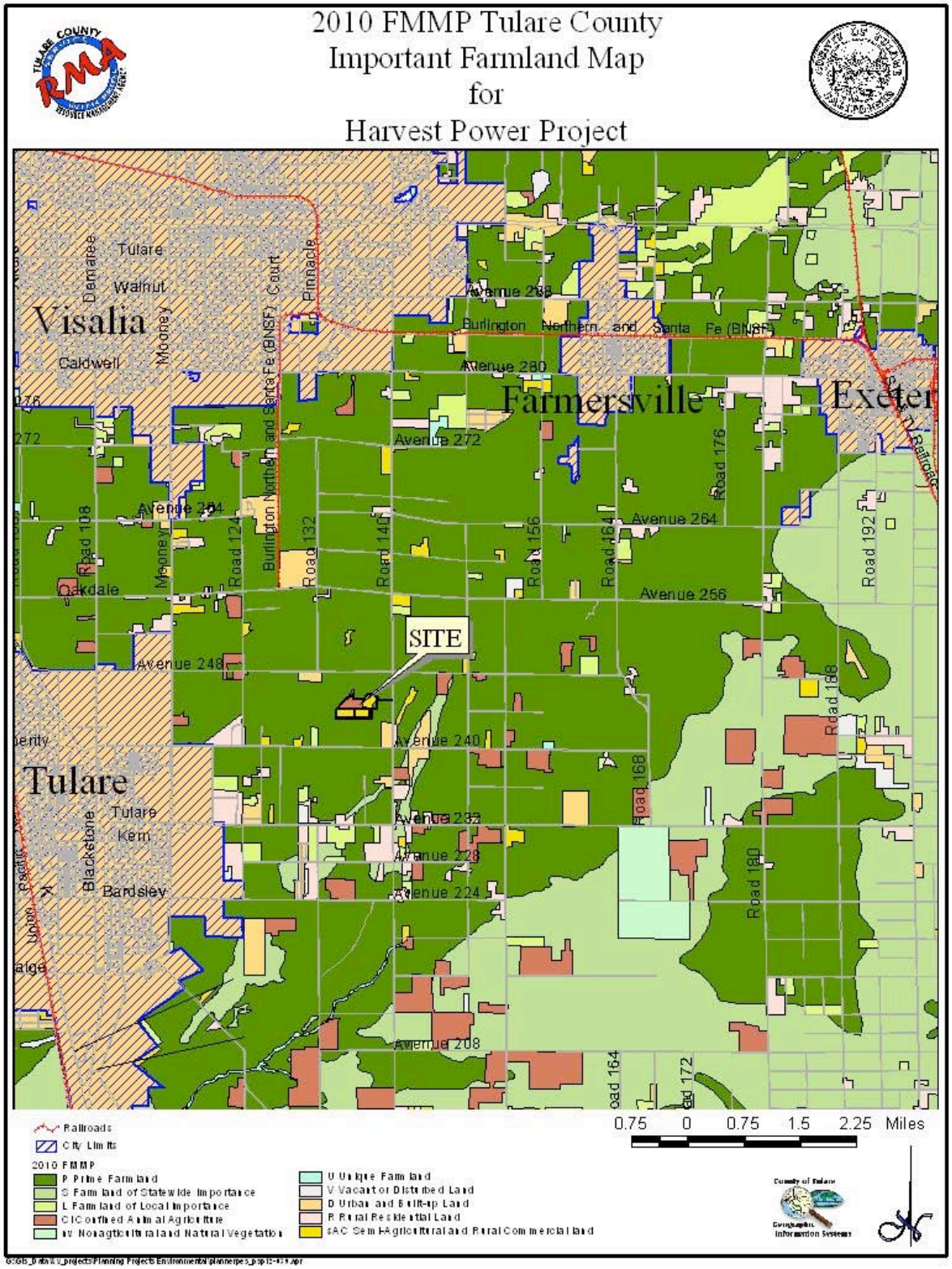


Figure 3.2-2
2010 Farmland Mapping Monitoring Program (FMMP) Map



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."[8]

REGULATORY SETTING

Federal Agencies & Regulations

Federal Farmland Protection Act (FFPA)

"The FPPA is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that to the extent possible federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland… Projects are subject to FPPA 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."[9]

US 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.""[10]

State Agencies & Regulations

California Department of Conservation: Farmland Mapping and Monitoring Program

"The California Department of Conservation (DOC), under the Division of Land Resource Protection, has developed the Farmland Mapping and Monitoring Program (FMMP), which monitors the conversion of the state's farmland to and from agricultural use. Data is collected at the county level to produce a series of maps identifying eight land use classifications using a minimum mapping unit of 10 acres. The program also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The program maintains an inventory

[8] General Plan Background Report, page 4-17
[9] Federal Farmland Protection Act, http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/alphabetical/fppa
[10] US Forest Service, "About Us – Meet the Forest Service", http://www.fs.fed.us/aboutus/meetfs.shtml

of state agricultural land and updates the "Important Farmland Series Maps" every two years (Department of Conservation, 2000)."[11]

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."[12]

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."[13]

Local Policy & Regulations

Tulare County General Plan Policies

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

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.

[11] General Plan Background Report, page 4-12
12 Ibid. Page 4-13
[13] California Department of Forestry and Fire Protection, http://www.fire.ca.gov/about/about.php

AG-2.6 Biotechnology and Biofuels
The County shall encourage the location of industrial and research oriented businesses specializing in biotechnologies and biofuels that can enhance agricultural productivity, enhance food processing activities in the County, provide for new agriculturally-related products and markets, or otherwise enhance the agricultural sector in the County.

AG-2.11 Energy Production
The County shall encourage and support the development of new agricultural related industries featuring alternative energy, utilization of agricultural waste, and solar or wind farms.

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 Dept. 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 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: ***Less than Significant Impact***

The proposed Project has two components, 1) operational expansion of the composting facility, and 2) a new Anaerobic Digester and Natural Gas Station. The composting facility will not use additional land and will be limited to the current footprint of the existing use. The Anaerobic Digester will be located on an existing unloading area, and will not convert agricultural land. The proposed Natural Gas Station will be located on a site adjacent to the existing facility.

Although the Proposed Project is surrounded by agricultural uses, the project is located in an area designated on the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) 2010 Important Farmland Map for Tulare County as "Semi-Agricultural and Rural Commercial Land," and will not impact Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.[14] No Project specific impacts related to this checklist item will occur.

[14] Department of Conservation, FMMP Tulare County Important Farmland 2010," ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/tul10_so.pdf

Cumulative Impact Analysis: ***Less than Significant 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.

The Project site is not located on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. The Project site is located adjacent to prime farmland. However, the proposed expansion will not result in the conversion of these adjacent parcels or induce the conversion of these adjacent parcels to a non-agricultural use.

The proposed Project will help corollary agribusinesses by processing waste materials. The services to be provided by the proposed Project will have a cumulative benefit on agricultural lands as it will benefit agribusinesses. Therefore, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None required.

Conclusion: ***Less than Significant Impact***

As noted above, no Project specific or cumulative impacts will occur.

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

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

The Project site is zone AE-40 (Exclusive Agricultural – 40 acre minimum). The composting operation and the proposed anaerobic digester are allowed uses in the AE-40 zone with a Special Use Permit.

The proposed Project site has two parcels under Williamson Act Contracts: Assessors Parcel Number (APN) 150-140-016 is in Agricultural Preserve No. 2745, Contract No. 8159 and APN 150-140-014 is in Agricultural Preserve No. 650, Contract No. 3603. The Williamson Act (Act) authorizes the Department of Conservation oversight of the Act, and local governments have primary responsibility for implementing the program. Government Code section 51238.1 addresses compatibility requirements on Williamson Act contracted lands. The Act grants cities and counties broad discretion in adopting local rules defining allowable (compatible) uses on all parcels under contract within agricultural preserves (Government Code Section 51231). In Tulare County, allowed agricultural and compatible uses on Williamson Act contracted lands are defined in Board of Supervisors Resolution No. 89-1275 ("Uniform Rules for Agricultural Uses"). Uses in agricultural zones (including the AE-40 zone) allowed either by right or with a Special Use Permit are determined to be

compatible uses under the Williamson Act. Therefore, no Project specific impacts related to this checklist item will occur.

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

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

The proposed Project will not result in conversion of prime farmland to a non-agricultural use. While there are Williamson Act-contracted lands adjacent to the Project site, it is not anticipated that the expansion of the existing use will cause the conversion of adjacent agricultural uses. The proposed Project will benefit corollary businesses and will have cumulative benefits. Therefore, less than significant cumulative impacts related to this checklist item will occur. As such, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts will occur.

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

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

The Project site and surrounding areas are located in the Valley portion of Tulare County and have agricultural zoning. The area contains no lands zoned or identified as forest land or timberland. The Project site is zoned as AE-40 (Exclusive Agricultural Zone – 40 Acre Minimum). The proposed Project will not conflict with existing zoning for forest land or cause rezoning of forest land. As such, no Project specific impacts to this checklist item will occur.

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

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

The proposed Project is not located within a forestland zone or would require the change of a forestland zone. As such no cumulative impacts to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts to this checklist item will occur.

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

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

As noted above, the proposed Project is not located within a forest land zone or will require the change of a forest land zone. As such, no Project specific impacts to this checklist item will occur.

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

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

As noted above, the proposed Project is not located within a forest land zone or will require the change of a forest land zone. As such, no cumulative impacts to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts to this checklist item will occur.

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

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

As described above, the proposed Project will not result in changes to the existing environment which could result in conversion of farmland to non-agricultural uses, or a conversion of forest to non-forest uses. No Project specific impacts related to this checklist item will occur.

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

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

As noted above, the proposed Project is not anticipated to impact adjacent farmland and no forest land exists near the Project. As such, no cumulative impacts to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

No Project specific or cumulative impacts to this checklist item are anticipated to occur.

DEFINITIONS/ACRONYMS

Definitions

"The California Department of Conservation, Division of Land Resource Protection, maintains the Farmland Mapping and Monitoring Program (FMMP), which monitors the conversion of the state's farmland to and from agricultural use. The map series identifies eight classifications (discussed below) and uses a minimum mapping unit size of 10 acres. The program also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The program maintains an inventory of state agricultural land and updates its "Important Farmland Series Maps" every two years. 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."[15]

[15] General Plan Update RDEIR, page 3.10-4

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."[16]

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."[17]

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."[18]

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."[19]

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."[20]

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."[21]

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."[22]

[16] General Plan Update RDEIR, page 3.10-4
[17] Ibid. page 3.10-4
[18] Ibid.
[19] Ibid.
[20] Ibid.
[21] Ibid. page 3.10-4 and 3.10-5
[22] Ibid. page 3.10-5

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."[23]

Acronyms

(CLCA) California Land Conservation Act (Williamson Act)
(FFPA) Federal Farmland Protection Act
(FMMP) Farmland Mapping and Monitoring Program

[23] Ibid.

REFERENCES

Tulare County 2030 General Plan, August 2012

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

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

California Department of Forestry and Fire Protection, http://www.fire.ca.gov/about/about.php

Federal Farmland Protection Act,
http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/alphabetical/fppa

US Forest Service, "About Us – Meet the Forest Service",
http://www.fs.fed.us/aboutus/meetfs.shtml

2012 CEQA Guidelines

Air Quality
Chapter 3.3

SUMMARY OF FINDINGS

The proposed Project will result in less than significant impacts to Air Quality. 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 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 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 2030 General Plan, the Tulare County General Plan Background Report and/or the Tulare County

[1] 2012 CEQA Guidelines, Section 15126.2 (a)

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 significance criteria for this analysis were developed from criteria presented in Appendix G, "Environmental Checklist Form", of the CEQA Guidelines. The proposed project would result in a significant impact if it would:

- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);
- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Create objectionable odors affecting a substantial number of people.

"To assist in the evaluation of the air quality impacts, the Air District regulated contaminants are discussed briefly below:

Carbon Monoxide (CO)

Sources: Internal combustion engines, principally in vehicles, produce carbon monoxide due to incomplete fuel combustion. Various industrial processes also produce carbon monoxide emissions through incomplete combustion. Gasoline-powered motor vehicles are typically the major source of this contaminant.

Effects: Carbon monoxide does not irritate the respiratory tract, but passes through the lungs directly into the blood stream and by interfering with the transfer of fresh oxygen to the blood, deprives sensitive tissues of oxygen. CO is not known to have adverse effects on vegetation, visibility or materials.

Level of Significance: The Air District has not established a CO emissions significance threshold for development projects covered by the Air District's Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI).

Nitrogen Dioxide (NO_2)/Nitrogen Oxides (NOx)

Sources: High combustion temperatures in both external combustion sources and internal combustion sources cause nitrogen and oxygen to combine and form nitric oxide. Further reaction produces additional oxides of nitrogen. Combustion in motor vehicle engines, power plants, refineries and other industrial operations are the primary sources in the region. Railroads and aircraft are other potentially significant sources of combustion air contaminants.

Effects: Oxides of nitrogen are direct participants in photochemical smog reactions. The emitted compound, nitric oxide, combines with oxygen in the atmosphere in the presence of hydrocarbons and sunlight to form nitrogen dioxide and ozone. Nitrogen dioxide, the most significant of these pollutants, can color the atmosphere at concentrations as low as 0.5 ppmv on days of 10-mile visibility. NOx is an important air pollutant in the region because it is a primary receptor of ultraviolet light, which initiates the reactions producing photochemical smog. It also reacts in the air to form nitrate particulates.

Level of Significance: The Air District has established a NOx emissions significance threshold for development projects covered by the GAMAQI of 10 tons per year.

Sulfur Dioxide (SO_2)/Sulfur Oxides (SOx)

Sources: SO_2 is the primary combustion product of sulfur, or sulfur containing fuels. Fuel combustion is the major source of this pollutant, while chemical plants, sulfur recovery plants, and metal processing facilities are minor contributors. Gaseous fuels (natural gas, propane, etc.) typically have lower percentages of sulfur containing compounds than liquid fuels such as diesel or crude oil. SO_2 levels are generally higher in the winter months. Decreasing levels of SO_2 in the atmosphere reflect the use of natural gas in power plants and boilers.

Effects: At high concentrations, sulfur dioxide irritates the upper respiratory tract. At lower concentrations, when respirated in combination with particulates, SO_2 can result in greater harm by injuring lung tissues. Sulfur oxides (SOx), in combination with moisture and oxygen, results in the formation of sulfuric acid, which can yellow the leaves of plants, dissolve marble, and oxidize iron and steel. Sulfur oxides can also react to produce sulfates that reduce visibility and sunlight.

Level of Significance: The Air District has not established a SOx emissions significance threshold for development projects covered by the GAMAQI.

Particulates

Sources: Particulate matter consists of particles in the atmosphere resulting from many kinds of dust and fume-producing industrial and agricultural operations, from combustion, and from atmospheric photochemical reactions. Natural activities also increase the level of particulates in the atmosphere; wind-raised dust and ocean spray are two sources of naturally occurring particulates.

Effects: In the respiratory tract, very small particles of certain substances may produce injury by themselves, or may contain absorbed gases that are injurious. Particulates of aerosol size suspended in the air can both scatter and absorb sunlight, producing haze and reducing visibility. They can also cause a wide range of damage to materials.

Level of Significance: Although a threshold was not established in GAMAQI by the AIR DISTRICT, 15 tons per year threshold for PM_{10} was utilized in this analysis. This threshold was

established by Air District as the limit at which an impact to the SJVAB may occur.

Hydrocarbons (HC) and other Reactive Organic Gases (ROG)

Sources: Motor vehicles are the major source of reactive hydrocarbons in the basin. Other sources include evaporation of organic solvents and petroleum production and refining operations.

Effects: Certain hydrocarbons can damage plants by inhibiting growth and by causing flowers and leaves to fall. Levels of hydrocarbons currently measured in urban areas are not known to cause adverse effects in humans. However, certain members of this contaminant group are important components in the reactions which produce photochemical oxidants.

Level of Significance: The Air District has established a ROG emissions significance threshold for development projects covered by the GAMAQI of 10 tons per year."[2]

ENVIRONMENTAL SETTING

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

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

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]

[2] Air Quality Impact Analysis, pages 38 to 39
[3] Tulare County 2030 General Plan RDEIR, page 3.3-9

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 AIR DISTRICT 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 NOx is more effective at reducing ozone concentrations than controlling ROG. However, controls meeting RACT and BACT are still required for AIR DISTRICT plans.

The SJVAB has been ranked the 2nd worst in the United States for O_3 levels, even though data shows that overall O_3 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.

Attainment status is based on air quality measurements throughout the entire SJVAB. A violation at a single air monitoring station anywhere in the air basin leads to a non-attainment designation for the entire air basin. In summary, the attainment status of Tulare County is as follows:

- **O_3. 1-hour Ozone**. In 2005 EPA revoked the 1-hour ambient air quality standard so there is no federal designation. Although the standard was revoked, the AIR DISTRICT was required to continue to implement many of the 1-hour planning requirements. The SJVAB is currently classified as non-attainment/severe for the State standard. The California Air Resources Board submitted the 2004 Extreme Ozone Attainment Demonstration Plan to the 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. On June 30, 2009, EPA proposed approval and partial disapproval of San Joaquin Valley's 2004 Extreme Ozone Attainment Plan for 1-hour ozone

8-hour Ozone. Attainment status is designated non-attainment for the State. On April 30, 2007 the Governing Board of the San Joaquin Valley Air Pollution Control District voted to request the EPA to reclassify the San Joaquin Valley Air Basin as nonattainment/extreme for the federal 8-hour ozone standard. The California Air Resources Board, on June 14, 2007, approved this request and forwarded it to the EPA for action on November 16, 2007. The reclassification would become effective upon EPA final rule making after a notice and comment process and is not yet in effect.

- **PM10**. Federal attainment status for the County is Attainment as of September 28, 2008. The SJVAB and the County are designated nonattainment for the State.
- **PM2.5**. The County is classified as non-attainment for both State and federal standards.
- **Carbon Monoxide: CO**. Tulare County is in attainment/unclassified for both State and federal standards.
- **Nitrogen Dioxide: NO_2**. Tulare County is attainment/unclassified at the federal level and classified attainment at the State level.
- **Sulfur Dioxide: SO_2**. Tulare County is in attainment/unclassified at the federal level, and classified attainment at the State level.
- **Sulfates (no federal standard)**. Tulare County is classified attainment at the State level.
- **Lead (no federal designation)**. Tulare County is classified attainment at the State level.
- **Hydrogen Sulfide: H_2S (no federal standard)**. Unclassified by the State.
- **Visibility Reducing Particles (no federal standard)**. Unclassified by the State.
- **Vinyl Chloride (no federal standard)**. Tulare County is classified attainment at the State level.[4]"

Air Quality Monitoring and Existing Emission Levels

"Geographic areas and air basins are classified for each pollutant as either attainment or non-attainment. In general, "non-attainment" means that the applicable standard has been exceeded anywhere within the air basin... Measured ambient air pollutant concentrations determine the attainment status within an area. There are several ambient air monitoring stations in Tulare County, three of which are located in mountainous areas at Sequoia National Park: Lower Kaweah (measures ozone); Sequoia and Kings Canyon National Park ([SEKI], measures ozone); and Lookout Point at Sequoia National Park (measures ozone). An air monitoring station is also located in a low-lying area of the County in Visalia (North Church Street - measures ozone, PM10, PM2.5, and CO). The air monitoring station at SEKI typically records the highest levels of ozone in Tulare County. According to the National Parks Conservation Association, SEKI ranked number 1 in ground-level ozone production out of all the National Parks in 2004. This ground-level ozone is responsible for hazy conditions that SEKI often experiences. As a result, SEKI does conduct visibility monitoring. **Table 3.3-2** shows ambient air quality data for maximum concentrations of the non-attainment pollutants at each of the air monitoring stations located in Tulare County.

[4] Ibid. Page 3.3-9

SJVAB Attainment Status

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 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. In summary, the attainment status of SJVAB is presented in **Table 3.3-1**.

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/Serious[2]	Nonattainment[2]
PM10	Attainment[3]	Nonattainment
PM2.5	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 On April 30, 2007 the Governing Board of the San Joaquin Valley Air Pollution Control District voted to request EPA to reclassify the San Joaquin Valley Air Basin as extreme nonattainment for the federal 8-hour ozone standards. The California Air Resources Board, on June 14, 2007, approved this request. This request must be forwarded to EPA by the California Air Resources Board and would become effective upon EPA final rulemaking after a notice and comment process; it is not yet in effect.

3 On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM10 National Ambient Air Quality Standard (NAAQS) and approved the PM10 Maintenance Plan.

4 The Valley is designated nonattainment for the 1997 federal PM2.5 standards. EPA released final designations for the 2006 PM2.5 standards in December 2008 (effective in 2009), designating the Valley as nonattainment for the 2006 PM2.5 standards.

SOURCE: AIR DISTRICT, 2008, *Ambient Air Quality Standards and Valley Attainment Status*, available at http://www.valleyair.org/aqinfo/attainment.htm; accessed June 5, 2009.

Existing Air Quality

"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. **Tables 3.3-2** through **3.3-8** provide the background concentrations for ozone, particulate matter of 10 microns (PM_{10}), particulate matter of less than 2.5 microns ($PM_{2.5}$), carbon monoxide (CO), nitrogen dioxide (NOx), sulfur dioxide (SO_2), and lead (Pb) as of September 2012. 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 2009 through 2011. No data is available for Hydrogen Sulfide, Vinyl Chloride or other toxic air contaminants in Tulare County or any nearby counties.[5]"

Table 3.3-2
Background Ambient Air Quality Data – Ozone[6]

CARB Air Monitoring Station	Number of Days Exceeding 1-Hour CAAQS (0.09 ppm)			Maximum 1-Hour Concentration (ppm)		
	2009	2010	2011	2009	2010	2011
Porterville – 1839 Newcomb St.	NR	15	15	NR	0.118	0.104
Visalia – N. Church St.	23	15	9	0.120	0.122	0.119

NR = Not Reported
Source: Air Quality Impact Analysis

Table 3.3-3
Background Ambient Air Quality Data – Ozone

CARB Air Monitoring Station	Number of Days Exceeding 8-Hour NAAQS (0.075 ppm)			Number of Days Exceeding 8-Hour CAAQS (0.07 ppm)			Maximum 8-Hour Concentration (ppm)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Porterville – 1839 Newcomb St.	NR	43	47	NR	75	82	NR	0.104	0.096
Visalia – N. Church St.	48	34	17	68	57	33	0.093	0.104	0.084

NR = Not Reported
Source: Air Quality Impact Analysis

Table 3.3-4
Background Ambient Air Quality Data – PM_{10}

CARB Air Monitoring Station	Days Exceeding 24-hour NAAQS (150 µg/m^3)			Annual Arithmetic Mea NAAQS (µg/m^3)			Days Exceeding 24-hou CAAQS (50 µg/m^3)			Maximum Concentration (µg/m		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
Visalia – N. Church St.	0	0	0	41.8	33.8	33.4	20	10	11	93.2	90.8	78.1

Source: Air Quality Impact Analysis

[5] Air Quality Impact Analysis, page 8
[6] California Air Resources Board Website Data as of July 2012

Table 3.3-5
Background Ambient Air Quality Data – $PM_{2.5}$[7]

CARB Air Monitoring Station	Days Exceeding 24-hour NAAQS (35 µg/m³)			Annual Arithmetic Mean NAAQS (µg/m³)			Maximum 24-Hour Concentration (µg/m³)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Visalia – N. Church St.	8	3	9	16.0	13.5	16.0	74.5	61.6	73.2

Source: Air Quality Impact Analysis

Table 3.3-6
Background Ambient Air Quality Data – CO[8]

CARB Air Monitoring Station	Number of Days Exceeding 8-Hour NAAQS (9.0 ppm)			Number of Days Exceeding 8-Hour CAAQS (9.0 ppm)			Maximum 8-Hour Concentration NAAQS (9.0 ppm) CAAQS (9.0 ppm)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Fresno – 1st St.	0	0	0	0	0	0	2.07	2.03	2.29

Source: Air Quality Impact Analysis

Table 3.3-7
Background Ambient Air Quality Data – NOx[9]

CARB Air Monitoring Station	Annual Average (ppm)			Number of Days Exceeding CAAQS (0.03 ppm)			Maximum 1-Hour Concentration CAAQS (0.18 ppm)		
	2009	2010	2011	2009	2010	2011	2009	2010	2011
Visalia – N. Church St.	0.015	0.013	0.012	0	0	0	0.068	0.077	0.058

Source: Air Quality Impact Analysis

Table 3.3-8
Background Ambient Air Quality Data – SOx[10]

CARB Air Monitoring Station	Annual Average NAAQS (0.03 ppm)			Maximum 24-Hour Concentration NAAQS (0.14 ppm) CAAQS (0.04 ppm)		
	2009	2010	2011	2009	2010	2011
Fresno – 1st St.	0.001	0.000	0.000	0.005	0.004	0.004

Source: Air Quality Impact Analysis

"The following is a discussion of the governmentally regulated air pollutants and their recent documented levels in the vicinity of the project area that are expected to be emitted from the construction and operation of the proposed project:

Ozone (O_3)

The most severe air quality problem in San Joaquin Valley is high concentrations of O_3. High levels of O_3 cause eye irritation and can impair respiratory functions. High levels of O_3 can also affect plants and materials. Particularly vulnerable to O_3 damage are grapes, lettuce, spinach and

[7] California Air Resources Board Website Data as of July 2012
[8] Ibid
[9] Ibid
[10] Data not available after 2001 as of July 2012.

many types of garden flowers and shrubs. O_3 is not emitted directly into the atmosphere but is a secondary pollutant produced through photochemical reactions involving hydrocarbons (HC) and nitrogen oxides (NOx). Significant O_3 generation requires about one to three hours in a stable atmosphere with strong sunlight. For this reason, the months of April through October comprise the "ozone season." O_3 is a regional pollutant because O_3 precursors are transported and diffused by wind concurrently with the reaction process. The data contained in **Tables 3.3-1** and **3.3-2** shows that for the 2009 through 2011 period, the project area exceeded the State one-hour average ambient O_3 standard, and the Federal and State eight-hour average ambient O_3 standards.

Suspended Particulate Matter (PM_{10} and $PM_{2.5}$)

Both state and Federal particulates standards now apply to particulates under 10 microns (PM_{10}) rather than to total suspended particulate (TSP), which includes particulates up to 30 microns in diameter. Continuing studies have shown that the smaller-diameter fraction of TSP represents the greatest health hazard posed by the pollutant; therefore, EPA has recently established ambient air quality standards for $PM_{2.5}$. The project area is classified as attainment per the EPA for $PM_{10,}$ while non-attainment for the state for $PM_{10.}$ The project area is classified as non-attainment for $PM_{2.5}$ for both the Federal and State.

The largest sources of PM_{10} and $PM_{2.5}$ in Tulare County are vehicle movement over paved and unpaved roads, demolition and construction activities, farming operations, and unplanned fires. PM_{10} and $PM_{2.5}$ are considered regional pollutants with elevated levels typically occurring over a wide geographic area. Concentrations tend to be highest in the winter, during periods of high atmospheric stability and low wind speed.

Table 3.3-4 shows that PM_{10} levels regularly exceeded the corresponding 24-hour state ambient standard over the three-year period of 2009 through 2011 but did not exceed the Federal ambient standards. **Table 3.3-5** shows that $PM_{2.5}$ exceedences were recorded over the three-year period of 2009 through 2011 of the Federal 24-hour ambient standards. Similar levels can be expected to occur in the vicinity of the project site.

Carbon Monoxide (CO)

Ambient CO concentrations normally correspond closely to the spatial and temporal distributions of vehicular traffic. Relatively high concentrations of CO would be expected along heavily traveled roads and near busy intersections. Wind speed and atmospheric mixing also influence CO concentrations; however, under inversion conditions prevalent in the valley, CO concentrations may be more uniformly distributed over a broad area. High concentrations of CO can impair the transport of oxygen in the bloodstream and thereby aggravate cardiovascular disease, causing fatigue, headaches, and dizziness. **Table 3.3-6** shows that CO levels at the Fresno monitoring station are well below the standards for the three-year period of 2009 through 2011; therefore, the vicinity of the project site is expected to be even lower than levels measured in Fresno.

Nitrogen Dioxide (NO_2)

NO_2 is the "whiskey brown" colored gas readily visible during periods of heavy air pollution. Mobile sources and oil and gas production account for nearly all of the county's nitrogen oxides (NOx) emissions, most of which is emitted as NO_2. Tulare County has been designated as an attainment/unclassified area for the NAAQS and attainment for the CAAQS for NO_2. In addition, **Table 3.3-7** shows that no excesses of the State NO_2 standards have been recorded at the Visalia area-monitoring station investigated over the three-year period of 2009 through 2011.

Sulfur Dioxide (SO_2)

Fuel combustion for oil and gas production and petroleum refining account for nearly all of the county's SO_2 emissions. Tulare County has been designated as an attainment/unclassified area for the NAAQS attainment for the CAAQS for SO_2. **Table 3.3-7** shows no exceedence of the more stringent state air quality standard over the three-year period in Fresno.

Lead (Pb) and Suspended Sulfate

Ambient Pb levels have dropped dramatically due to the increase in the percentage of motor vehicles that run exclusively on unleaded fuel. No ambient Pb levels were taken over the three-year period of 2009 through 2011."[11]

REGULATORY SETTING

Federal Agencies & Regulations

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 [PM2.5]), 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

[11] Air Quality Impact Analysis, pages 11 to 12

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."[12]

[12] Tulare County 2030 General Plan RDEIR, pages 3.3-1 to 3.3-2

Table 3.3-9
State & National Criteria Air Pollutant Standards, Effects, and Sources

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone	1 hour	0.09 ppm	---	(a) Decrease of pulmonary function and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; (f) Property damage.	Formed when reactive organic gases (ROG) and nitrogen oxides (NO_X) react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
	8 hours	0.07 ppm[1]	0.075 ppm		
Carbon Monoxide	1 hour	20 ppm	35 ppm	(a) Aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; (d) Possible increased risk to fetuses.	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm		
Nitrogen Dioxide	1 hour	0.18 ppm	---	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration - Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
	Annual Avg.	0.030	0.053 ppm		
Sulfur Dioxide	1 hour	0.25 ppm	---	Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient sulfur dioxide levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	3 hours	---	0.5 ppm		
	24 hours	0.04 ppm	0.14 ppm		
	Annual Avg.	---	0.03 ppm		
Respirable Particulate Matter (PM10)	24 hours	50 mg/m^3	150 mg/m^3	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; (c) Increased risk of premature death from heart or lung diseases in the elderly.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	Annual Avg.	20 mg/m^3	---		
	24 hours	---	35 mg/m^3		

Fine Particulate Matter (PM2.5)	24 hours	---	35 mg/m^3	Daily fluctuations in PM2.5 levels have been related to hospital admissions for acute respiratory conditions, school absences, and increased medication use in children and adults with asthma.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NO_X, sulfur oxides, and organics.
	Annual Avg.	12 mg/m^3	15 mg/m^3		
Lead	Rolling 3-Month Average NAAQS/Monthly Avg. State	1.5 mg/m^3	0.15 mg/m^3	Lead accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction. The more serious effects of lead poisoning include behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs. Lead may also contribute to high blood pressure and heart disease.	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	---	1.5 mg/m^3		
Hydrogen Sulfide	1 hour	0.03 ppm	No National Standard	High levels of hydrogen sulfide can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headache, nausea, vomiting, and cough. Long exposure can cause pulmonary edema.	Geothermal Power Plants, Petroleum Production and refining
Sulfates	24 hour	25 mg/m^3	No National Standard	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) Property damage.	Produced by the reaction in the air of SO_2.
Visibility Reducing Particles	8 hour	Extinction of 0.23/km; visibility of 10 miles or more	No National Standard	Reduces visibility, reduced airport safety, lower real estate value, and discourages tourism.	See PM2.5.

ppm = parts per million; mg/m^3 = micrograms per cubic meter.
1 This concentration was approved by the Air Resources Board on April 28, 2005 and became effective May 17, 2006.
SOURCE: California Air Resources Board, 2008a. *Ambient Air Quality Standards,* available at http://www.arb.ca.gov/research/aaqs/aaqs2.pdf Standards last updated November 17, 2008. California Air Resources Board, 2001. *ARB Fact Sheet: Air Pollution Sources, Effects and Control,* http://www.arb.ca.gov/research/health/fs/fs2/fs2.htm, page last updated December 2005.

SOURCE OF EFFECTS: SCAQMD, Table 2-1 page 2-2, 2007 and U.S. EPA, 2010.

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 3.3-9**], which, for certain pollutants and averaging periods, are more stringent than the comparable federal standards. Responsibility for meeting California's standards is addressed by the CARB and local air pollution control districts (such as the eight county AIR DISTRICT, which administers air quality regulations for Tulare County). Compliance strategies are presented in district-level air quality attainment plans.

The California CAA requires that Air Districts prepare an air quality attainment plan if the district violates State air quality standards for criteria pollutants including carbon monoxide, sulfur dioxide, nitrogen dioxide, PM2.5, 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.

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."[13]

California Air Resources Board

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

In addition to preparation of the SIP, the CARB also regulates mobile emission sources in California, such as construction equipment, trucks, automobiles, and oversees the activities of air quality management districts and air pollution control districts, which are organized at the county or regional level. The local or regional Air Districts are primarily responsible for regulating stationary emission sources at industrial and commercial facilities within their jurisdiction and for preparing the air quality plans that are required under the Federal CAA and California CAA."[14]

[13] Ibid. page 3.3-1
[14] Ibid. pages 3.3-6 to 3.3-7

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, Tulare, and the San Joaquin Valley Air Basin portion of Kern.

The Air District is primarily responsible for regulating stationary source emissions within Tulare County and preparing the air quality plans (or portions thereof) for its jurisdiction. 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. For example, the Air District adopted its Regulation VIII-(Fugitive PM^{10} Prohibitions), on October 21, 1993 and amended it on several occasions since then. This Regulation consists of a series of emission reduction rules intended to implement the PM10 Maintenance Plan. The PM10 Maintenance Plan emphasizes reducing fugitive dust as a means of achieving attainment of the federal standards for PM10. Regulation VIII specifically addresses the following activities:

- construction, demolition, excavation, extraction;
- handling and storage of bulk materials;
- landfill disposal sites;
- paved and unpaved roads; and
- vehicle and/or equipment parking, shipping and receiving, transfer, fueling, and service areas.

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

- Rule 9510 (Indirect Source Review) requires developers to mitigate project emissions through 1) on-site design features that reduce trips and vehicle miles traveled, 2) controls on other emission sources, and 3) with reductions obtained through the payment of a mitigation fee used to fund off-site air quality mitigation projects. Rule 9510 requires construction related NOx emission reductions of 20 percent and PM10 reductions of 45 percent. Rule 9510 requires a 33 percent reduction in operational NOx emissions and a 50 percent reduction in PM10. The reductions are calculated by comparing the unmitigated baseline emissions and mitigated emissions from the first year of project operation. The Air District recommends using the [CalEEMOD] model to quantify project emissions and emission reductions. Rule 9510 was adopted to reduce the impacts of development on Air District's attainment plans.

Other Air District Rules and Regulations that affect development in Tulare County include:

- Rule 2201 (New and Modified Stationary Source Review): This rule requires new and modified stationary emission sources to implement best available control technology and to offset emissions exceeding thresholds contained in the rule. The rule implements the federal Title V permitting program for the San Joaquin Valley Air Basin.
- Rule 4101 - Visible Emissions

- 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 4565 (Biosolids, Animal Manure, and Poultry Litter Operations): Limit VOC emissions from operations involving the management of biosolids, animal manure, or poultry litter."[15]]
- Rule 4566 (Green Waste Composting and Operations)
- Rule 4601 (Architectural Coatings): The purpose of this rule is to limit Volatile Organic Compounds (VOC) emissions from architectural coatings. Emissions are reduced by limits on VOC content and providing requirements on coatings storage, cleanup, and labeling.
- Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations): The purpose of this rule is to limit VOC emissions from asphalt paving and maintenance operations. If asphalt paving will be used, then the paving operations will be subject to Rule 4641.
- Rule 4202 - Particulate Matter - Emission Rate

The Air District's Governing Board has also recently adopted the 2008 PM2.5 Plan. This plan highlights a variety of measures designed to achieve all the PM2.5 standards - the 1997 federal standards, the 2006 federal standards, and the state standard - as soon as possible.

The district has published a Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) (Air District, page 1, 2002), an advisory document that provides lead agencies, consultants, and project applicants with uniform procedures for addressing air quality in environmental documents. A major part of the GAMAQI includes a discussion of air quality control measures that are recommended for use in mitigating construction and operation-related impacts. The district has also published Air Quality Guidelines for General Plans (Air District, page 1-1, 2005), which provides guidance to local officials and staff on developing and implementing local policies and programs to be included in local jurisdictions' general plans.[16]"

PM 2.5 Plan

"The *2012 PM2.5 Plan* established the District's strategy for attaining the 2006 PM2.5 standard as expeditiously as possible, and synthesizes the [Air] District's strategies for improving air quality and public health in the Valley. The [Air District has to] demonstrate attainment of the newest federal standards for fine particulate matter (PM2.5) as expeditiously as possible. Through this comprehensive attainment strategy, the Valley will achieve attainment of the federal PM2.5 standard by 2019… reducing NOx emissions, the predominant pollutant leading to the formation of PM2.5, by 55% over this period. In addition to these much-needed NOx reductions, the District's strategy also reduces direct PM2.5 emissions that not only assist the Valley in attaining the standard as fast as possible, but also reduce the PM2.5 emissions that pose the greatest health impacts to Valley residents."[17]

[15] Air District Web Site, http://www.valleyair.org/air_quality_plans/pm25plans2012_old-122112.htm
[16] Tulare County 2030 General Plan RDEIR pages 3.3-7 to 3.3-8
[17] Air District Web Site, http://www.valleyair.org/air_quality_plans/pm25plans2012_old-122112.htm

Local Policy & Regulations

Tulare County General Plan Policies

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

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 reasonable mitigated when feasible.

AQ-1.6 Purchase of Low Emission/Alternative Fuel Vehicles

The County shall encourage County departments and agencies to replace existing vehicles with low emission/alternative fuel vehicles as appropriate.

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 §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.

AQ-1.10 Alternative Fuel Vehicle Infrastructure
County shall support the development of necessary facilities and infrastructure needed to encourage the use of low or zero-emission vehicles (e.g. electric vehicle charging facilities and conveniently located alternative fueling stations, including CNG filling stations."[18]

<u>County Responses to Air Quality Conditions</u>

Ozone

"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

[18] Tulare County 2030 General Plan, pages 9-4 to 9-6

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.

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.

PM10

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."[19]

Criteria Pollutants

"For construction impacts, the pollutant of greatest concern to the District is respirable particulate matter (PM10).[20] The Air District recommends that significance be based on a consideration of the control measures to be implemented during project construction (Air District, page 23, 2002). Compliance with Regulation VIII, Rule 8011, and implementation of appropriate mitigation measures to control PM10 emissions are considered by the Air District to be sufficient to render a project's construction-related impacts less than significant. The Air District GAMAQI contains a list of feasible control measures for construction-related PM10 emissions.

The Air District's GAMAQI also includes significance criteria for evaluating operational-phase emissions from direct and indirect sources associated with a project. Indirect sources include motor vehicle traffic resulting from the project and do not include stationary sources covered under permit with the Air District. For this analysis, the project would be considered to have a significant effect on the environment if it would exceed the following thresholds:

- Cause a net increase in pollutant emissions of reactive organic gases (ROG) or NO_X exceeding 10 tons per year.
- Cause a violation of State CO concentration standards. The level of significance of CO emissions from mobiles sources is determined by modeling the ambient concentration under project conditions and comparing the resultant 1- and 8-hour concentrations to the respective State CO standards of 20.0 and 9.0 parts per million.
- Cause "visible dust emissions" due to onsite operations and thereby violate AIR DISTRICT Regulation VIII[21].

[19] Tulare County 2030 General Plan RDEIR, pages 3.3-12 - 3.3-14
[20] Construction equipment emits particulate matter, carbon monoxide and ozone precursors. The SJVAPCD has determined that these emissions would cause a significant air quality impact only in the case of a very large or very intense construction project (SJVAPCD, 2002).
[21] Visible dust is defined by the SJVAPCD as "visible dust of such opacity as to obscure an observer's view to a degree equal to or greater than an opacity of 40 percent, for a period or periods aggregating more than three minutes in any one hour.

Although the Air District GAMAQI recognizes that PM10 is a major air quality issue in the basin, it does not establish quantitative thresholds for potential impact significance. However, for the purposes of this analysis, a PM10 emission of 15 tons per year from project operations is used as a significance threshold. 15 tons per year is the Air District threshold level at which new stationary sources requiring Air District permits must provide emissions "offsets". This threshold of significance for PM10 is consistent with the ROG and NOx thresholds of 10 tons per year, which are also, offset thresholds established in Air District Rule 2201.

Stationary sources that comply, or that would comply, with Air District Rules and Regulations are generally not considered to have a significant air quality impact."[22]

Toxic Air Contaminants

"The operation of any project with the potential to expose sensitive receptors to substantial levels of toxic air contaminants (TAC's) would be deemed to have a potentially significant impact. More specifically, proposed development projects that have the potential to expose the public to TAC's in excess of the following thresholds would be considered to have a significant air quality impact:

- Probability of contracting cancer for the Maximally Exposed Individual[23] exceeds 10 in one million.
- Ground-level concentrations of non-carcinogenic TAC's would result in a Hazard Index greater than 1 for the Maximally Exposed Individual.

Application of these standards would typically apply to the preparation of more detailed project-specific health risk assessments (based on a detailed air dispersion modeling effort) that would occur as individual projects are considered under the proposed project. For this programmatic assessment of the proposed project, the assessment of TAC's is conducted at a qualitative level with specific policies and implementation measures provided to address the potential impacts associated with this issue."[24]

[22] Tulare County 2030 General Plan RDEIR, page 3.3-15
[23] Maximally Exposed Individual represents the worst-case risk estimate based on a theoretical person continuously exposed for 70 years at the point of highest compound concentration in air.
[24] Tulare County 2030 General Plan RDEIR, pages 3.3-15 – 3.3-16

IMPACT EVALUATION

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

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

Project Impact Analysis: ***Less than Significant Impact***

The Project is currently permitted by the Air District for processing 156,000 tons per year (TPY). This Project's tonnage limits are in compliance with the Air District's Rule 4565.

The Project currently operates under Air District permit numbers:

- S-3594-1-1
- S-3594-2-0
- S-3594-4-1
- S-3594-5-1
- S-3594-6-0
- S-3594-7-0
- S-3594-8-0
- S-3594-9-0

The current actual usage is approximately 75,000 TPY, or approximately 80,000 tons per year more than the current 156,000 TPY limit. Air District Rule 4565 (Green Waste Composting and Operations) requires composting and digestion facilities to comply with VOC from biosolids, and animal manure. The Project has existing permits under this Rule and is seeking Air District permits for the proposed additional amounts of compost and biosolids for digestion. The expansion from 156,000 tons per year to 216,000 tons per year, and the additional 60,000 tons of Fat, Oil and Grease for digestion, will be consistent and compliant with the rules/regulations noted earlier.

The proposed Project does not conflict or obstruct with any of Tulare County's Air Quality Policies, as listed above, or Climate Action Plan Policies. General Plan Policies AQ-1.7 to 1.9 require that new development adhere to AB32's policies, adhere to the Climate Action Plan, and create off sets/off site. The Project is implementing these measures by reducing air emissions that would normally occur at a land fill.

All other necessary air quality permits will be acquired by Harvest Power prior to starting the additional site based on the Air District's Air Basin Plan, rules and/or regulations, and applicable permits. In addition, there are no noted conflicts with the Air District's Control Strategy for PM 2.5. Therefore, the Project will not conflict or obstruct on any applicable air quality policies.

Cumulative Impact Analysis: ***Less than Significant Impact***

The geographic area of this cumulative analysis is San Joaquin Air Basin. This cumulative analysis is based on the information provided in the Air Quality Impact Assessment.

The allowed tonnage specified in the two use permits is a reflection of the maximum allowed by the Air District. This increase in tonnage would not add to the indirect impacts to the Air District Plan by the adjacent dairy, vineyard, and other agricultural uses. Therefore, the potential cumulative impact to the Air District's Basin Plan would be less than Significant.

Mitigation Measures:

None Required.

Conclusion: ***Less than Significant Impact***

The Project's limits on composting and digestion facilities will reduce air emissions by taking the Fat, Oil and Grease and Green Waste out of the traditional waste stream and will be limited to the amount set by the Air District. The Project will also obtain all necessary Air District permits. Therefore, the Project will implement, and will not conflict or obstruct, the Air District's and Tulare County's General Plan Policies.

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

Project Impact Analysis: ***Less than Significant Impact with Mitigation***

"State CEQA Guidelines – Appendix G (Environmental Checklist) states that a project that would "*violate any air quality standard or contribute substantially to an existing or projected air quality violation*" would be considered to create significant impacts on air quality. Therefore, an air quality impact analysis should determine whether the emissions from a project would cause or contribute significantly to violations of the National (NAAQS) or California Ambient Air Quality Standards (CAAQS) when added to existing ambient concentrations.

In order to determine what comprises "significant impact levels" the U.S. EPA has established the federal Prevention of Significant Deterioration (PSD) program to assess whether a project should be required to conduct a detailed cumulative increment analysis in areas deemed to be in attainment with the NAAQS. A project's impacts are considered negligible if emissions are below PSD significant impact levels (SIL) for a particular pollutant. When a SIL is exceeded, an additional "increment analysis" is required. The increment analysis encompasses both the project and certain other existing, proposed, and reasonably foreseeable projects. Incremental increases in deterioration of air quality may be considered minor or insignificant. Emissions impacts below these thresholds are considered

insignificant on both a project level and a cumulative level. The projected emissions for the proposed project are significantly below levels that would require analysis under the federal PSD program. Similarly, the San Joaquin Valley Air Basin is classified as non-attainment for the ozone NAAQS and, as such, is subject to "non-attainment new source review" (NSR). PSD SILs and increments are more stringent than the state or NAAQS and represent the most stringent significance criteria. As the project is not considered a "stationary source" under NSR, it will not be subject to either PSD or NSR review.[25]"

Short-Term Emissions

"Short-term emissions are primarily related to the grading and construction phases of a project and are recognized to be short in duration and without lasting impacts on air quality.

As the precise construction details about the proposed project were unknown at the time this analysis was conducted, the default equipment provided in CalEEMod along with estimates from the project proponent were used to estimate the (short-term) grading, construction, and paving phase emissions along with ramp-up flaring emissions. While emissions from the project are expected to vary substantially from day to day, they are expected to be approximately equal over the course of the construction period. Many variables are factored into the calculation of construction emissions such as length of the construction period, number of each type of equipment, site characteristics, area climate, and construction personnel activities. In order to present the most conservative approach to estimating construction emissions from the project; all equipment was assumed to be in use 6 to 8 cumulative hours per day at full power, which is the CalEEMod default. In reality, much of this equipment will be used significantly less than this due to idling time, operator breaks, equipment breakdowns, etc.

According to the GAMAQI, it is recommended that projects with buildout periods in excess of five (5) years also model the proposed project's emissions at the projected mid-way point[26]. As the subject project is *not* expected to have a buildout of more than five years an additional (intermediate) CalEEMod modeling run is not required for the project. **Table 3.3-10** presents the project's unmitigated and mitigated short-term emissions based on the full buildout period.

Table 3.3-10
Short-Term Project Emissions

Emissions Source	Pollutant (tons/year)					
	ROG	**NOx**	**CO***	**SOx***	**PM_{10}**	**$PM_{2.5}$***
Unmitigated Emissions						
Construction Emissions – 2013	0.70	4.64	3.29	0.01	0.34	0.31
Construction Emissions – 2014	1.56	2.14	9.03	0.00	0.23	0.23
SJVAPCD Annual Threshold	10	10	NA	NA	15	NA
Is Threshold Exceeded Before Mitigation?	**No**	**No**	-	-	**No**	-
Mitigated Emissions						

[25] Air Quality Impact Analysis, pages 16 to 17
[26] SJVAPCD GAMAQI, page 40

Construction Emissions – 2013	0.70	4.64	3.29	0.01	0.33	0.30
Construction Emissions – 2014	1.56	2.14	9.03	0.00	0.23	0.23
SJVAPCD Annual Threshold	10	10	NA	NA	15	NA
Is Threshold Exceeded After Mitigation?	**No**	**No**	-	-	**No**	-

NOTES:
* The SJVAPCD has not established significance thresholds for CO, SOx or $PM_{2.5}$.

Source: Air Quality Impact Analysis

As calculated, the short-term emissions, for each year of construction, are predicted to be less than SJVAPCD significance threshold levels. Short-term emissions from the project as calculated by CalEEMod, using the default equipment listing, and ramp-up flaring calculations would be less than SJVAPCD significance levels. Project construction emissions are expected to remain below significance threshold levels and are therefore less than significant."[27]

Baseline Emissions

"The Harvest Power facility is currently in operation. In order to consider the true impacts to the SJVAB proposed by the project's modifications, this analysis examined baseline site emissions compared to predicted emissions after the project's modifications. Emissions attributable to the existing operation are already incorporated into the air basin's existing emissions inventory through inclusion in the Tulare County General Plan, the San Joaquin Valley Air Pollution Control District Emissions Inventory and the California Air Resources Board Statewide Emissions Inventory. Baseline emissions were calculated using existing equipment and sources at the site along with existing traffic values that occurred at the facility in 2011. The calculated baseline emissions are presented in **Table 3.3-12**.

Long-Term Emissions

Long-term emissions are related to the activities that will occur indefinitely because of project operations and are the primary focus of the SJVAPCD and of this analysis. Long-term emissions are caused by operational (mobile) sources and area (heating, cooling and structural) sources. The greatest of these emissions impacts emanate from mobile sources traveling to and from the project area. Long-term emissions will start with the completion of construction on the project site. Long-term emissions will consist of the following components:

Fugitive Dust Emissions

Operation of the project site at full buildout is not expected to present a significant source of fugitive dust (PM_{10}) emissions. The main source of PM_{10} emissions will be from vehicular traffic associated with the project site.

PM_{10} generated as a part of fugitive dust emissions, as noted by the regulatory agencies, pose a potentially serious health hazard, alone or in combination with other pollutants. Control

[27] Air Quality Impact Analysis, pages 19 to 20

measures required and enforced by the SJVAPCD under Regulation VIII will assist in minimizing these emissions to a less than significant level. The following SJVAPCD Rules and Regulations apply to the control of fugitive dust from the proposed project:

- Rule 4102 - Nuisance
- Rule 8011 - General Requirements
- Rule 8021 - Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities
- Rule 8041 - Carryout and Trackout
- Rule 8051 - Open Areas

Compliance with applicable SJVAPCD Rules and Regulations, the local zoning codes, and additional mitigation measures required in this analysis will reduce PM_{10} fugitive dust emissions even further to ensure that the project's emissions remain at a "*less than significant*" level.

Fugitive Composting Emissions

Operation of the project site at full buildout is not expected to present a significant source of fugitive VOC emissions. The main source of VOC emissions will be from stockpiles and windrows associated with the project site.

VOC generated as a part of fugitive emissions, as noted by the regulatory agencies, pose a potentially serious health hazard, alone or in combination with other pollutants. Control measures required and enforced by the Air District will assist in minimizing these emissions to a less than significant level. The following Air Distrcict Rules and Regulations apply to the control of fugitive composting emissions from the proposed project:

- Rule 4101 - Visible Emissions
- Rule 4102 - Nuisance
- Rule 4202 - Particulate Matter - Emission Rate
- Rule 4565 - Biosolids, Animal Manure, and Poultry Litter Operations
- Rule 4566 - Green Waste Composting and Operations

Compliance with all the applicable SJVAPCD Rules and Regulations and local zoning codes will reduce VOC fugitive composting emissions even further to ensure that the project's emissions remain at a "less than significant" level."[28]

Equipment and Vehicle Exhaust

"Exhaust emissions from this project include emissions produced from delivery trucks and employees traveling to and from the site and operational equipment usage. Emitted pollutants include CO, ROG, NOx, SOx, PM_{10} and $PM_{2.5}$.

[28] Air Quality Impact Analysis, pages 20 to 22

Exhaust emissions will vary from day to day. The variables factored into estimating total project emissions include: level of activity, site characteristics, weather conditions, and predicted number of deliveries.

Table 3.3-11
Emission Sources

Emissions Source	Service and Pollutants
Facility Building[1]	Air conditioning and heating system as well as water heater emissions will occur from the manufacturing facility. While most of the facility will operate with electrical power, minor sources of combustion are used for these incidental items. Criteria pollutant emissions will consist of ROG, NOx, CO, SO_2, PM_{10} and $PM_{2.5}$.
Equipment and Vehicles[2]	Delivery and employee vehicles will be used to transport product and employees to and from the facility. Criteria pollutant emissions will consist of ROG, NOx, CO, SO_2, PM_{10} and $PM_{2.5}$.
Stationary Source Emissions[3]	The composting facility is a stationary source which emits fugitive VOC and PM_{10} emissions.

NOTES:
[1] Emissions factors and emissions were based on CalEEMod
[2] Emissions factors and emissions were based on CalEEMod and EMFAC2011
[3] Emissions factors and emissions were based on District Emissions Factors

Source: Air Quality Impact Analysis

The emissions from this project were evaluated based on the incremental difference between the current operation of the facility and the post-project operation of the facility. If the proposed project is approved it is expected to have the long-term air quality impacts shown in the **Table [3.3-12]**."[29]

Table 3.3-12
Long-Term Incremental Emissions

Emissions Source	Pollutant (tons/year)					
	ROG	NOx	CO*	SOx*	PM_{10}	$PM_{2.5}$ *
Baseline						
Direct Exhaust Emissions	1.37	9.60	6.21	0.01	0.65	0.65
Indirect Exhaust Emissions	0.03	3.51	0.23	0.00	0.04	0.02
Fugitive Dust Emissions	-	-	-	-	0.41	0.04
Area Source Emission	0.01	0.00	0.00	0.00	0.00	0.00
Stationary Source Emission[1]	768.94	-	-	-	0.16	-
Baseline Total	**770.34**	**13.11**	**6.45**	**0.01**	**1.26**	**0.71**
Project Emissions						
Direct Exhaust Emissions	1.53	10.80	6.91	0.01	0.72	0.72
Indirect Exhaust Emissions	0.04	5.96	0.34	0.00	0.08	0.03
Fugitive Dust Emissions	-	-	-	-	0.70	0.07
Area Source Emission	0.01	0.00	0.00	0.00	0.00	0.00
Stationary Source Emission[1]	804.54	-	-	-	0.17	-

[29] Air Quality Impact Analysis, page 22

Project Total	**806.12**	**16.76**	**7.25**	**0.01**	**1.65**	**0.82**
Total Incremental Increase Long-Term Emissions (Including Stationary Source Fugitive Emissions)[2]	**35.77**	**3.56**	**0.81**	**0.00**	**0.39**	**0.11**
Total Incremental Increase Long-Term Emissions (Excluding Stationary Source Fugitive Emissions)[2]	**0.17**	**3.56**	**0.81**	**0.00**	**0.38**	**0.11**
SJVAPCD Threshold	10	10	NA	NA	15	NA
Is Threshold Exceeded After Mitigation?	**No**	**No**	-	-	**No**	-

NOTES:
[1] This emissions are under control and enforcement of the SJVAPCD and are fugitive in nature
[2] Numbers may not add due to rounding by the CalEEMod and EMFAC2011
* The SJVAPCD has not established significance thresholds for CO, SOx or $PM_{2.5}$

Source: Air Quality Impact Analysis

The Stationary Source emissions from the composting facility require permits to operate from the SJVAPCD. SJVAPCD controls and quantifies the emissions from these sources and they are assumed to be mitigated to the greatest feasible extent. Since the emissions are controlled by the SJVAPCD and accounted for in the State Implementation plan they are considered *less than significant* from a CEQA standpoint. Furthermore, the stationary source VOC emissions associated with this project are fugitive emissions and according the SJVAPCD are not counted toward major source or offset thresholds.

As calculated, the long-term operational and area source emissions associated with the proposed project would be less than SJVAPCD threshold levels when calculated without the fugitive stationary source emissions and would, therefore, not pose a significant impact."[30]

Cumulative Impact Analysis: ***Less than Significant Impact with Mitigation***

The geographic area of this cumulative analysis is San Joaquin Air Basin. This cumulative analysis is based on the information provided in the Air Quality Impact Assessment.

"A review of the City of Tulare and the Tulare County Resource Management Agency's files indicates that there are zero (0) Tentative Tracts or other planned developments within a one-mile radius of the proposed project site. Projects that are planned but have not been submitted for review or approved by the county are not included in this analysis as there is no way to know or ascertain what they might consist of. The SJVAPCD requires use of a one-mile radius to identify HAP emissions as well as for most odor sources[31]. A one-mile limit is recommended by the SJVAPCD for HAPs pollutants as such emissions primarily impact individuals that reside or work within the immediate vicinity (one-mile) of the emissions source.

[30] Ibid, page 23
[31] SJVAPCD GAMAQI, page 53

Table 3.3-13
2020 Emissions Projections

	ROG	NO_X	PM_{10}
Proposed Project	35.77[1]	3.56	0.39
Tulare County	46,683	12,410	24,637
San Joaquin Valley Air Basin	211,663	119,063	125,888
Proposed Project Percent of Tulare County	0.08	0.03	0.002
Proposed Project Percent of SJVAB	0.02	0.003	0.0003
Tulare County Percent of SJVAB	22.05	10.42	19.57

Notes: The emission estimates for Tulare County and the SJVAB are based on 2020 projections. The Proposed Project emission estimates are for the proposed incremental emissions increase that is not already included in the San Joaquin Valley Air Basin Emissions Inventory. The Project's emissions are expected to decline as cleaner, less polluting vehicles replace vehicles with higher emissions.
[1] All but 0.17 tons of these emissions are fugitive emissions which are permitted, controlled and accounted for within the SIP by the /SJVAPCD.

Source: California Air Resources Board (www.arb.ca.gov/app/emsinv/emssumcat.php)

"As shown above, the proposed project will pose an extremely minute impact on regional ozone and PM_{10} formation. When mitigation measures and compliance with applicable rules, such as SJVAPCD's Rule 9510 (Indirect Source Rule) is considered, the regional contribution to these cumulative impacts will be almost negligible. It is reasonable to conclude that *the project is not cumulatively significant with regard to regional impacts*.

The listing provided below in **Table [3.3-14]** is only a geographical reference to demonstrate the construction activity in the project vicinity. The number or size of these projects is of no particular significance since no "cumulative" emissions thresholds have been established by the SJVAPCD or the Tulare County Resource Management Agency. In accordance with SJVAPCD guidance, fireplaces were not considered since they are seasonal in nature and because residential developments are prohibited from installing wood burning fireplaces[32]."

Table 3.3-14
Cumulative Long-Term Emissions*

Scheduled Developments**	**Pollutant (tons/year)**					
	ROG	**NOx**	**CO**	**Sox**	**PM_{10}**	**$PM_{2.5}$**
This Project***	**35.77**	**3.56**	**0.81**	**0.00**	**0.39**	**0.11**
None	-	-	-	-	-	-

NOTES:
* The SJVAPCD has not established significance thresholds for cumulative emissions.
** These emissions (other than the proposed project) are overestimated, as they are discretionary projects that are subject to various mitigation measures that have not yet been determined nor their impacts reduced herein.
*** Emissions presented are "mitigated" emissions for the proposed project only. All but 0.17 tons of ROG emissions are fugitive emissions which are permitted, controlled and accounted for within the SIP by the /SJVAPCD.

Source: Air Quality Impact Analysis

"As details regarding the proposed emissions from the various projects listed above were not readily available through the Tulare County Resource Management Agency, no emissions estimates were modeled using the CalEEMod computer model to predict cumulative impacts ([see Attachment E] under Appendix H for output results). Additionally, no cumulative significance thresholds are shown since no cumulative thresholds have been established by the SJVAPCD, CARB or other regulatory authority. Since no projects are either currently under construction or, at a minimum, approved by the City of Tulare Planning Division for

[32] SJVAPCD Rule 4901, Amended July 17, 2003

consistency with applicable regulation and the project alone does not exceed any significant thresholds, for the purposes of this analysis, it is assumed that they are in conformance with the regional AQAP and will not pose a significant contribution to the cumulative impacts to air quality in the SJVAB."[33]

"The most recent, certified San Joaquin Valley Air Basin Emission Inventory data available from the California Air Resources Board (CARB) is based on data gathered for the 2008 annual inventory.[34] This data will be used to assist the SJVAPCD in demonstrating attainment of Federal 1-hour Ozone Standards and contained 220,642 tons/year VOC (ROG) and 210,495 tons/year NOx[35] from all sources. On a regional basis, the proposed project represents approximately 0.02% of the ROG and 0.002% of the NOx emissions in the air basin. The incremental increase posed by the project upon the air basin appears to be insignificant since basin emissions would be essentially the same regardless of whether or not the project is built."[36]

Since the direct impacts are not significant, and the baseline is currently under any of the quantified SJVAPCD thresholds, the emissions from the Project would not add significantly to surrounding cumulative impacts to air quality, so long as they attain all required permits from the Air District."[37]

Mitigation Measures:

3.3-1 The applicant shall obtain all required permits from the Air District prior to implementing any elements of the proposed Project.

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

"The Stationary Source emissions from the composting facility require permits to operate from the SJVAPCD. SJVAPCD controls and quantifies the emissions from these sources, and they are assumed to be mitigated to the greatest feasible extent. Since the emissions are controlled by the SJVAPCD and accounted for in the State Implementation plan they are considered less than significant [with the added mitigation of attaining all the required Air District permits]."[38]

[33] California Air Resources Board (CARB) Emissions Inventory Database
[34] Ibid.
[35] San Joaquin Valley Air Basin Emissions Inventory to Demonstrating Attainment of Federal 1-hour Ozone Standards, San Joaquin Valley Air Pollution Control District, February 2007
[36] California Air Resources Board (CARB) Emissions Inventory Database
[37] Air Quality Impact Analysis, pages 30 to 33
[38] Ibid.

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***

Measures Used in Areas with Severe Air Quality Issues

"Several special interest groups have suggested what has come to be known as the "one-molecule theory". This theory supposes that the addition of even one molecule of a criteria pollutant in a non-attainment air basin would constitute a significant increase. While these groups have attempted to enforce this theory in various jurisdictions, the Court of Appeals has held that CEQA does not require this approach. One court has stated, "the 'one [additional] molecule rule' is not the law" (*Communities for a Better Environment v California Resources Agency* 2002, 103 Cal.App.4th 98, 119). Therefore, the Measures of Significance included in the following tables were applied to the subject project to determine the project's level of significance."[39]

Table 3.3-15
Measures of Significance – OZONE (ROG and NOx Emissions)

Agency	Level	Description
Measures Adopted for the Evaluation of Impacts Under CEQA		
SJVAPCD	10 tons/yr NOx	SJVAPCD Guide for Assessing and Mitigating Air Quality Impacts, August 20, 1998 (Revised January 10, 2002)
	10 tons/yr ROG	
SJVAPCD	Not Significant	If Construction Emissions do not exceed CEQA Guide for Ozone Precursors During Operation, then Construction Impacts are Assumed to be Less Than Significant when compliance with Regulation VIII is achieved and the control measures of GAMAQI Tables 6-3 and 6-4 are implemented as appropriate.

Source: Air Quality Impact Analysis

Table 3.3-16
Measures Based on Ambient Air Quality Impacts (NOx)

Agency	Level	Description
CARB	338 µg/m3	California One-Hour AAQS for NO_2
CARB	57 µg/m3	California annual AAQS for NO_2
USEPA	188 µg/m3	National One-Hour AAQS for NO_2
USEPA	100 µg/m3	National annual AAQS for NO_2
USEPA	1.0 µg/m3	Class II significant impact level for PSD
USEPA	25 µg/m3	Class II increment for PSD

Source: Air Quality Impact Analysis

[39] Air Quality Impact Analysis, pages 16 - 17

Table 3.3-17
Measures of Significance – CARBON MONOXIDE (CO)

Agency	Level	Description
Measures Adopted for the Evaluation of Impacts Under CEQA		
SJVAPCD	9 ppm, 8-hr avg	SJVAPCD Guide for Assessing and Mitigating Air Quality Impacts, August 20, 1998 (Revised January 10, 2002)
	20 ppm, 1-hr avg	
SJVAPCD	Not Significant	If Construction Emissions do not exceed CEQA Guide for Ozone Precursors During Operation, then Construction Impacts are Assumed to be Less Than Significant when compliance with Regulation VIII is achieved and the control measures of GAMAQI Table 6-4 are implemented as appropriate.
Measures Based on Ambient Air Quality Impacts		
CARB	23,000 µg/m3	California 1-hour AAQS for CO
	10,000 µg/m3	National and California 8-hour AAQS for CO

Source: Air Quality Impact Analysis

Table 3.3-18
Measures of Significance – SULFUR DIOXIDE (SO_2)

Agency	Level	Description
Measures Adopted for the Evaluation of Impacts Under CEQA		
SJVAPCD	Not Significant	If Construction Emissions do not exceed CEQA Guide for Ozone Precursors During Operation, then Construction Impacts are Assumed to be Less Than Significant when compliance with Regulation VIII is achieved and the control measures of GAMAQI Table 6-4 are implemented as appropriate.
Measures Based on Ambient Air Quality Impacts		
CARB	655 µg/m3	California 1-hour AAQS for SO_2
	105 µg/m3	California 24-hour AAQS for SO_2
USEPA	196 µg/m3	National 1-hr AAQS for SO_2
	1,300 µg/m3	National 3-hr AAQS for SO_2
	80 µg/m3	National annual AAQS for SO_2
	25 µg/m3	3-hr Class II significant impact level for PSD
	5 µg/m3	24 hr Class II significant impact level for PSD
	1.0 µg/m3	Annual Class II significant impact level for PSD
	512 µg/m3	3-hr Class II increment for PSD
	91 µg/m3	24 hr Class II increment for PSD
	50 µg/m3	Annual Class II increment for PSD

Source: Air Quality Impact Analysis

Table 3.3-19
Measures of Significance – RESPIRABLE PARTICULATES (PM_{10})

Agency	Level	Description
Measures Adopted for the Evaluation of Impacts Under CEQA		
SJVAPCD	Not Significant	If Construction Emissions do not exceed CEQA Guide for Ozone Precursors During Operation, then Construction Impacts are Assumed to be Less Than Significant when compliance with Regulation VIII is achieved and the control measures of GAMAQI Tables 6-2 and 6-3 are implemented as appropriate.
Measures Based on Ambient Air Quality Impacts		
CARB	50 µg/m3	California 24 hour AAQS for PM_{10}
	20 µg/m3	California Annual AAQS for PM_{10}

USEPA	5 µg/m3	24 hr Class II significant impact level for PSD
	1 µg/m3	Annual Class II significant impact level for PSD
	30 µg/m3	24 hr Class II increment for PSD
	17 µg/m3	Annual Class II increment for PSD

Source: Air Quality Impact Analysis

Table 3.3-20
Measures of Significance – RESPIRABLE PARTICULATES ($PM_{2.5}$)

Agency	Level	Description
Measures Adopted for the Evaluation of Impacts Under CEQA		
SJVAPCD	Not Significant	If Construction Emissions do not exceed CEQA Guide for Ozone Precursors During Operation, then Construction Impacts are Assumed to be Less Than Significant when compliance with Regulation VIII is achieved and the control measures of GAMAQI Tables 6-2 and 6-3 are implemented as appropriate.
Measures Based on Ambient Air Quality Impacts		
CARB	12 µg/m3	California Annual AAQS for $PM_{2.5}$
USEPA	35 µg/m3	National 24 hr AAQS for $PM_{2.5}$

Source: Air Quality Impact Analysis

Table 3.3-21
Measures of Significance – TOXIC AIR CONTAMINANTS (TACs)

Agency	Level	Description
Measures Adopted for the Evaluation of Impacts Under CEQA		
SJVAPCD	Not Significant	If Construction Emissions do not exceed CEQA Guide for Ozone Precursors during operation, then construction impacts are assumed to be *less than significant* when compliance with Regulation VIII is achieved and the control measures of CEQA Appendix G Tables 6-3 and 6-4 are implemented as appropriate.
	10 in one million	Carcinogenic Risk Limit for Maximally Exposed Individual
	Hazard Index >1	Chronic and Acute Hazard Index Risk for Maximally Exposed Individual.[40]"

Source: Air Quality Impact Analysis

The above tables in relation to **Tables 3.3-12** and **3.3-12** indicate that the Project will not have a significant impact to the non-attainment of the criteria pollutants, within the San Joaquin Valley Air Basin, under the SJVAB Plan, and the Project will not emit ozone in excess of quantitative thresholds for ozone precursors.

Cumulative Impact Analysis: ***Less than Significant Impact with Mitigation***

The geographic area of this cumulative analysis is San Joaquin Air Basin. This cumulative analysis is based on the information provided in the Air Quality Impact Assessment.

Since the project will have to mitigate their emissions through permitting the Project to Air District standards, the project will have a less than a significant impact with mitigation.

[40] Air Quality Impact Analysis, page 18

Mitigation Measures:

See mitigation measure 3.3-1.

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

The proposed Project will not emit ozone in excess of quantitative thresholds for ozone precursors. Since the project will have to mitigate their emissions through permitting the Project to Air District standards, the project will have a less than a significant impact with mitigation.

d) Expose sensitive receptors to substantial pollutant concentrations?

Project Impact Analysis: ***Less than Significant Impact***

Sensitive Receptors

"Based on the emissions impacts expected, the proposed project is not expected to affect sensitive receptors. Sensitive receptors are defined as areas where young children, chronically ill individuals, the elderly or people who are more sensitive than the general population reside. Schools, hospitals, nursing homes and daycare centers are locations where sensitive receptors would likely reside. Sensitive receptors within less than one-mile from the project site are listed in **Table [3.3-22]**.

Additionally, Harvest Power currently operates under an Odor Impact Mitigation Plan (OIMP) to comply with the CalRecycle Full Composting Facility permit. The OIMP focuses on processes to prevent odor from migrating off site during the feedstock delivery, composting and curing phases and the protocol to deal with odor issues if they do arise. The processes include mixing any food materials with green materials immediately upon arrival at the site, and incorporating them into the compost windrows as soon as possible, within a maximum of 36 hours. Watering and turning regimes increase the temperature and speed of the breakdown of the material in the windrows, diminishing odor. A specific protocol for neighbor notification and response to neighbor issues is also included. The anaerobic digestion facility is designed with a bio-filter to ensure that no offensive odor migrates off site.

Therefore, based on the predicted emissions from the project and the OIMP, the project is not anticipated to have significant impacts on any known sensitive receptors."[41]

[41] Air Quality Impact Analysis, page 24

Table 3.3-22
Sensitive Receptors Located ≤ 5 Miles from Project

Receptor	Type of Facility	Distance from Project (miles)	Direction from Project
Sundale Elementary School	Public K-8	0.51	SE
Sundale Preschool	Preschool	0.51	SE

Source: Air Quality Impact Analysis

Health Risks

"The proposed facility will result in emissions of [hazardous air pollutant] HAPs and will be located near existing residences, schools and businesses; therefore, an assessment of the potential risk to the population attributable to emissions of hazardous air pollutants from the proposed project is required. Ambient air concentrations were predicted with dispersion modeling to arrive at a conservative estimate of increased individual carcinogenic risk that might occur as a result of continuous exposure over a 70-year lifetime. Similarly, predicted concentrations were used to calculate non-cancer chronic hazard indices (HIs), which are the ratio of expected exposure to acceptable exposure. Individuals at businesses are not subject to a continuous exposure over a 70-year lifetime; therefore worker exposure duration for cancer risk may be adjusted to [Hotspots Analysis and Reporting Program] HARP default worker exposure assumptions."[42]

"The carcinogenic risk and the health hazard index (HI) for chronic and acute non-cancer risk at all of the modeled receptors do not exceed the significance levels of less than ten in one million (10×10^{-6}) and 1, respectively. Therefore, the application of HARP default worker exposure assumptions to reduce continuous exposure to less than a 70-year lifetime was not necessary for the business receptors. The risk predicted by HARP for the potential maximum impacts, as identified by receptor number, type, risk and location, are provided in **Table [3.3-23]**."[43]

Table 3.3-23
Potential Maximum Impacts Predicted By HARP

	Receptor	Value	UTM East	UTM North	Pathway
Excess Cancer Risk[a]	5	7.76E-06	296645	4011905	Inhalation
Chronic Hazard Index	5	3.76E-02	296645	4011905	Respiratory System
Acute Hazard Index	6	3.98E-01	296122	4011444	Respiratory System

[a] Based on continuous, 70-year residential exposure for all receptors.

Source: Air Quality Impact Analysis

"As shown above in **Table [3.3-23]**, the maximum predicted cancer risk for the facility is 7.76E-06. The maximum chronic and acute non-cancer hazard indexes are 3.76E-02 and 3.98E-01 respectively. Cancer risk and chronic and acute non-cancer risk are attributable to emissions of diesel exhaust particulate matter from the on-site use of heavy-duty vehicles and

[42] Air Quality Impact Analysis, page 25
[43] Air Quality Impact Analysis, page 27

equipment and compost operation emissions.

In accordance with the GAMAQI, the potential health risk attributable to the proposed project is determined to be *less than significant* based on the following conclusions:

1) Potential chronic carcinogenic risk from the proposed project is *below* the significance level of ten in a million at each of the modeled receptors; and
2) The hazard index for the potential chronic non-cancer risk from the proposed project is *below* the significance level of one at each of the modeled receptors."[44]

Cumulative Impact Analysis: ***Less than Significant Impact***

The geographic area of this cumulative analysis is San Joaquin Air Basin. This cumulative analysis is based on the information provided in the Air Quality Impact Assessment.

There are sensitive receptors at the school that are within one mile, but since the Project currently has an OIMP, therefore based on the above analysis and predicted emissions from the Project and the odor control measures; the impacts to the school site are less than significant.

As the potential chronic carcinogenic risk is below the significance level and the hazard index for the potential chronic non-cancer risk from the proposed project is below the significance level, less than significant cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***Less than Significant Impact***

As noted above, the project is not anticipated to have significant project specific or cumulative impacts on any known sensitive receptors.

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

Project Impact Analysis: ***Less than Significant Impact***

"Harvest Power currently operates under an Odor Impact Mitigation Plan (OIMP) to comply with the CalRecycle Full Composting Facility permit. The OIMP focuses on processes to prevent odor from migrating off site during the feedstock delivery, composting and curing phases and the protocol to deal with odor issues if they do arise. The processes include mixing any food materials with green materials immediately upon arrival at the site, and

[44] Air Quality Impact Analysis, page 27

incorporating them into the compost windrows as soon as possible, within a maximum of 36 hours. Watering and turning regimes increase the temperature and speed of the breakdown of the material in the windrows, diminishing odor. A specific protocol for neighbor notification and response to neighbor issues is also included. The anaerobic digestion facility is designed with a biofilter to ensure that no offensive odor migrates off site.

Therefore, based on the predicted emissions from the project and the OIMP, the project is not anticipated to have significant impacts on any known sensitive receptors."[45]

Cumulative Impact Analysis: ***Less than Significant Impact***

The geographic area of this cumulative analysis is San Joaquin Air Basin. This cumulative analysis is based on the information provided in the Air Quality Impact Assessment.

There are rural residential units, within the vicinity of the project, that are affected by the dairy odor on the adjacent property that the Project's odor impact in the cumulative. Although the Project and the adjacent diary have a cumulatively objectionable odor, there are not substantial amounts of people in the vicinity.

Mitigation Measures:

None Required.

Conclusion: ***Less than Significant Impact***

Because the Project has an existing OIMP, that reduces the odor and the amount of surrounding rural residence, and users of the site are not substantial, the Project's impacts from odor to a substantial amount of people are less than significant. In the cumulative, the adjacent dairies and the project's odors create an objectionable odor, but it is a less than significant impact to a significant amount of people.

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.

[45] Air Quality Impact Analysis, page 24

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

Beat 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 Dioxide (CO_2)
A naturally occurring gas, and also a by-product of burning fossil fuels and biomass, as well as land-use changes and other industrial processes. It is the principal anthropogenic greenhouse gas that affects the Earth's radiative balance. It is the reference gas against which other greenhouse gases are measured and therefore has a Global Warming Potential of 1.

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).

Climate Change
Climate change refers to a statistically significant variation in either the mean state of the climate or in its variability, persisting for an extended period (typically decades or longer). Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or in land use.

Global Warming
Global warming is an average increase in the temperature of the atmosphere near the Earth's surface and in the troposphere, which can contribute to changes in global climate patterns. Global warming can occur from a variety of causes, both natural and human induced. In common usage, "global warming" often refers to the warming that can occur as a result of increased emissions of greenhouse gases from human activities.

Greenhouse Effect
Trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. Some of the heat flowing back toward space from the Earth's surface is absorbed by water vapor, carbon dioxide, ozone, and several other gases in the atmosphere and then reradiated back toward the Earth's surface. If the atmospheric concentrations of these greenhouse gases rise, the average temperature of the lower atmosphere will gradually increase.

Greenhouse Gas
Any gas that absorbs infrared radiation in the atmosphere. Greenhouse gases include, but are not limited to, water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrochlorofluorocarbons (HCFCs), ozone (O_3), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

Hydrogen Sulfide (H_2S)
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 (æg/m_3) [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 (NO_2). NO_x are primarily created from the combustion process and are a major contributor to ozone smog and acid rain formation. NOx also forms ammonium nitrate particulate in chemical reactions that occur when NOx forms nitric acid and combines with ammonia. Ammonium nitrate particulate is an important contributor to PM10 and PM2.5.

Ozone (O_3)
Ozone is a pungent, colorless, toxic gas created in the atmosphere rather than emitted directly into the air. O_3 is produced in complex atmospheric reactions involving oxides of nitrogen, reactive organic gases (ROG), and ultraviolet energy from the sun in a photochemical reaction. Motor vehicles are the major sources of O_3 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. A major component of smog.

Photochemical
Some air pollutants are direct emissions, such as the CO produced by an automobile's engine. Other pollutants, primarily O_3, 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 (PM2.5)
The federal government has recently added standards for smaller dust particulates. PM2.5 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 composition of some particles is 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 PM2.5 and PM10 is comprised primarily of fugitive dust. The particles between PM10 and PM2.5 are primarily combustion products and secondary particles formed by chemical reactions in the atmosphere.

Reactive Organic Gas (ROG)
A photo chemically reactive chemical 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 apparatus 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 are at greater risk than the general population to the effects of air pollution. These groups include the elderly, infants and children, and individuals with respiratory problems, such as asthma.

Sulfur Dioxide (SO_2)
Sulfur dioxide belongs to the family of SOx. 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. SOx 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 PM2.5. 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.

Acronyms

(ACM)	Asbestos Containing Materials
(BACM)	Best Available Control Measures
(CAA)	Clean Air Act
(CARB)	California Air Resources Board
(CH_4)	Methane
(CO)	Carbon Monoxide
(CO_2)	Carbon Dioxide
(EPA)	Environmental Protection Agency
(GAMAQI)	Guide for Assessing and Mitigating Air Quality Impacts
(HCFCs)	Hydrochlorofluorocarbons
(HFCs)	Hydrofluorocarbons
(HI)	Hazard Index
(H_2S)	Hydrogen Sulfide
(NAAQS)	National Ambient Air Quality Standards
(NO_2)	Nitrogen Dioxide
(NESHAPs)	National Environmental Standards for Hazardous Air Pollutants
(MPO)	Metropolitan Planning Organization
(O_3)	Ozone
(Pb)	Lead
(PFCs)	Perfluorocarbons
(PM2.5)	Particulate Matter 2.5 Micrometers
(PM10)	Particulate Matter 10 Micrometers
(RACM)	Reasonable Available Control Measures
(RACT)	Reasonable Available Control Technologies

(ROG)	Reactive Organic Gases
(SEKI)	Sequoia and Kings Canyon National Park
(SIP)	State Implementation Plan
(SF_6)	Sulfur Hexafluoride
(SO_2)	Sulfur Dioxide
(AIR DISTRICT)	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
(URBEMIS)	Urban Emissions model
(VOC)	Volatile Organic Compound

REFERENCES

Tulare County 2030 General Plan, Recirculated Draft Environmental Impact Report (RDEIR), February 2010

2012 CEQA Guidelines

Tulare County 2030 General Plan, August 2012

Biological Resources
Chapter 3.4

SUMMARY OF FINDINGS

A biological evaluation of the Project site was conducted by Live Oaks Associates, Inc. in November, 2012. The report concluded that the commercial site had been heavily altered by human activities and no longer provides suitable habitat for locally occurring special status species. Because such species would not occur on the Project site, they will not be impacted by the proposed Project. Therefore, it is determined that impacts on biological resources due to the proposed Project are less than significant without mitigation.

INTRODUCTION

California Environmental Quality Act (CEQA) Requirements

This section of the Draft Environmental Impact Report (DEIR) for the Project meets CEQA requirements by addressing potential impacts to biological resources on the proposed Project site, which is located in a portion of the San Joaquin Valley in Tulare County. The "Environmental Setting" section provides a description of biological resources in the region, with special emphasis on the proposed Project site and vicinity. The "Regulatory Setting" provides a description of applicable State and Local regulatory policies. A description of the potential impacts of the proposed Project is also provided and includes the identification of feasible mitigation to avoid or lessen the impacts.

Thresholds of Significance

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

ENVIRONMENTAL SETTING

"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]

"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. Stormwater mostly runs off onsite hardscapes and is collected in the onsite drainage basins. In areas where soils are exposed, rainwater may infiltrate onsite soils to some degree, despite the compacted nature of these soils."[2]

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).[3]

The Project site is located in Tulare County approximately 1.3 miles east of the City of Tulare. The site is relatively level, with an elevation of approximately 315 feet National Geodetic Vertical Datum (NGVD). The existing operation is permitted to compost green material, food, and dairy manure (PSP 92-091).

The Project site is zoned AE-40 (Exclusive agriculture, 40 acre minimum), as are nearby properties. Surrounding agricultural lands consisting of citrus orchards, row crops, and other farmed lands. There are scattered rural residences less than 1 mile south and east of the site, and a commercial fruit packing plant approximately 0.4 miles northeast of the facility.

A biological assessment of the Project site was conducted by Live Oaks Associates in November, 2012. Results of the field survey and database searches were summarized in a Live Oak Associates report, "Harvest Power Tulare Project Biological Evaluation, Tulare County, California (November 30, 2012)."[4] The study surveyed the Project site and vicinity for biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that

[1] General Plan Background Report, page 1-2
[2] Live Oak Associates, Biological Report, page 4
[3] General Plan Background Report, page 9-10
[4] Live Oak Associates, Biological Report, page 4

may be protected by State and Federal law. The report noted that, because the Project site is heavily disturbed, vegetation was absent from approximately 99% of the Project site. The existing vegetation was located primarily around the man-made detention basin, and consisted of a few wetland species and upland species, listed in Appendices of the Live Oak Associates report. The Live Oak Associates study also included results of database and literature searches to determine which sensitive plant or animal species might potentially use the site. A comprehensive list of observed and potential plant and animal species is included in the Live Oak Associates report. Based on the highly disturbed nature of the site, the report concluded that the site no longer provides suitable habitat for locally occurring special status plant and animal species.[5]

REGULATORY SETTING

Applicable Federal, State, and Local regulations specific to biological resources are described below. The following environmental regulatory settings were summarized, in part, from information contained in the Tulare County General Plan 2010 Background Report.

Federal Agencies & Regulations

Federal Endangered Species Act

"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)."[6]

"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

[5] Live Oak Associates, Biological Report, pages. 4, 6-8, 10-13, 24-28
[6] Tulare County 2030 General Plan RDEIR, page 3.11-1

posts in the federal registry and a public comment period before a final determination is made by the USFWS."[7]

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."[8]

There are two habitat conservation plans that apply in Tulare County: The Kern Water Habitat Conservation Plan, which applies to an area in Allensworth; and the U.S. Fish and Wildlife's "The Recovery Plan for Upland Species in the San Joaquin Valley," which includes sensitive species in the San Joaquin Valley, several of which may be found in Tulare County.

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."[9]

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

[7] Ibid.
[8] Ibid., page 3.11-2
[9] Ibid.

and wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary."[10]

"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."[11]

State Agencies & Regulations

California Department of Fish and Wildlife (formerly Dept. of Fish and Game)

The California Department of Fish and Wildlife (DFW) regulates the modification of the bed, bank, or channel of a waterway under Sections 1601-1607 of the California Fish and Game Code. Also included are modifications that divert, obstruct, or change the natural flow of a waterway. Any party who proposes an activity that may modify a feature regulated by the Fish and Game Code must notify DFW before project construction. DFW will then decide whether to enter into a Streambed Alteration Agreement with the project applicant either under Section 1601 (for public entities) or Section 1603 (for private entities) of the Fish and Game Code.

California Endangered Species Act

DFW administers the California Endangered Species Act of 1984 (Fish and Game Code Section 2080), which regulates the listing and "take" of endangered and threatened State-listed species. A "take" may be permitted by California Department of Fish and Game through implementing a management agreement. "Take" is defined by the California Endangered Species Act as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" a State-listed species (Fish and Game Code Sec. 86). Under State laws, DFW is empowered to review projects for their potential impacts to State-listed species and their habitats.

The DFW maintains lists for Candidate-Endangered Species (SCE) and Candidate-Threatened Species (SCT). California candidate species are afforded the same level of protection as State-listed species. California also designates Species of Special Concern (CSC) that are species of limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. These species do not have the same legal protection as listed species, but may be added to official lists in the future. The CSC list is intended by DFW as a

[10] Ibid., pages 3.11-1 and 3.11-2
[11] Ibid.

management tool for consideration in future land use decisions (Fish and Game Code Section 2080).[12]

All State lead agencies must consult with DFW under the California Endangered Species Act when a proposed project may affect State-listed species. DFW would determine if a project under review would jeopardize or result in taking of a State-listed species, or destroy or adversely modify its essential habitat, also known as a "jeopardy finding" (Fish and Game Code Sec. 2090). For projects where DFW has made a jeopardy finding, DFW must specify reasonable and prudent alternatives to the proposed project to the State lead agency (Fish and Game Code Sec. 2090 et seq.).[13]

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 Secs. 2800 et seq.).[14]

Federally and State-Protected Lands

Ownership of California's wildlands is divided primarily between federal, state, and private entities. State-owned land is managed under the leadership of the Departments of Fish and Game (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.[15]

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 Flood and Agriculture, Trade and Commerce Agency, Governor's Office of Planning and Research,

[12] Ibid., pages 9-7 and 9-8
[13] Ibid., page 9-8
[14] Ibid.
[15] Ibid., page 9-9

Department of Fish and Game, Department of Water Resources, and the State Water Resources Control Board.[16]

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 DFW.[17]

Special Status Species

"Several species of plants and animals within the state of California have low populations and/or limited distributions. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. State and federal laws have provided the DFW 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 DFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened, or endangered (CNPS 2012). Collectively, these plants and animals are referred to as "special status species."[18]

Sensitive Species Significance Criteria

"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."[19]

"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 Game or U.S. Fish and Wildlife Service.

[16] Ibid.
[17] Live Oak Associates, Biological Report, page 1
[18] Ibid., pages 7 and 8
[19] Ibid., page 15

- 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, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan."[20]

"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."[21]

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) " …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…"

[20] Ibid., page 16
[21] Ibid.

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 include ERM-1.1, 1.2, 1.4, 1.6, 1.7, 1.16 and 1.17:[22]

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.

[22] Tulare County 2030 General Plan, Goals and Policies Report, page 8-9

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.

IMPACT EVALUATION
Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Project Impact Analysis: ***Less than Significant Impact***

Existing Site Conditions

"On November 16, 2012, LOA [Live Oak Associates] biologist Jeff Gurule surveyed the site for biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law."[23] The report noted that the intensive commercial land uses on the site have resulted in all lands of the project site having been disturbed, with the result that vegetation was absent from approximately 99% of the project site. The only vegetation observed onsite included a few wetland species within the detention basin and inundated waterhole, some weedy upland species along portions of the fence, and "a few scraggly landscape trees and shrubs."[24]

Existing or Potential On-Site Species

The plant species observed or potentially occurring on the Harvest-Tulare project site during the November 16, 2012 site visit included the following:

"Wetland species observed in the detention basin consisted solely of salt heliotrope (*Heliotropium curassavicum*). Wetland vegetation observed in and around the waterhole consisted of floating water primrose (*Ludwigia peploides*) and watergrass (*Echinochloa crus-galli*). Upland species observed along portions of the fence line included Canada horseweed (*Erigeron canadensis*), nettle leaf goosefoot (*Chenopodium murale*), pigweed amaranth (*Amaranthus albus*), Russian thistle (*salsola tragus*), and Bermuda grass (*Cynodon dactylon*), among others. Sparse landscape vegetation consisted of a small mulberry tree (*Morus alba*) and prickly pear cactus (*Opuntia sp.*), in addition to several unknown horticultural shrubs."[25]

[23] Live Oak Associates, Biological Report, page i
[24] Ibid., page 6
[25] Ibid.

"The number of native animal species expected to utilize the project site is very small due to the extremely small amount of vegetation and ongoing commercial activity on the site. Amphibians using this habitat would be limited to species tolerant of human activities. Pacific chorus frogs (*Pseudacris regilla*) may occur in or around the drainage basin or waterhole. Reptile species are expected to be essentially absent from the site due to the heavy human use of the site."Species potentially occurring in the project vicinity that may at times wander onto the project site include the western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis melanoleucus*), and common kingsnake (*Lampropeltis getulus*). The site provides very little foraging and cover habitat for avian species. However, year-round resident birds such as the killdeer (*Charadrius vociferus*), rock pigeon (*Columba livia*), European starling (*Sturnus vulgaris*), black phoebe (*Sayornis nigricans*), house sparrow (*Passer domesticus*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), and house finch (*Carpodacus mexicanus*) could be expected to use the site from time to time. Two winter migrants, the white-crowned sparrow (*Zonotrichia leucorphrys*) and yellow-rumped warbler (*Dendroica coronata*), were observed on the site during the field survey. The western kingbird (*Tyrannus verticalis*) is a common summer migrant to agricultural lands of the region that may occasionally use portions of the site for foraging."[26]

"Mammalian use of the site is expected to be severely limited by existing fencing and the lack of vegetation over much of the site. Rodents such as house mice (*Mus musculus*) and black rat (*Rattus rattus*) are likely attracted to refuse piles, as are raccoons (*Procyon lotor*). A few California ground squirrel (*Otospermophilus beecheyi*) burrows were found in the detention basin bank. Various bat species may forage over the site."[27]

A list of vascular plants observed on the project site, along with the US Fish and Wildlife Service wetland indicator status of each species, is included as Live Oak Associates Appendix A.[28] A list of the terrestrial vertebrate species that could potentially occur on the project site is included as Live Oak Associates Biological Report Appendix B.[29]

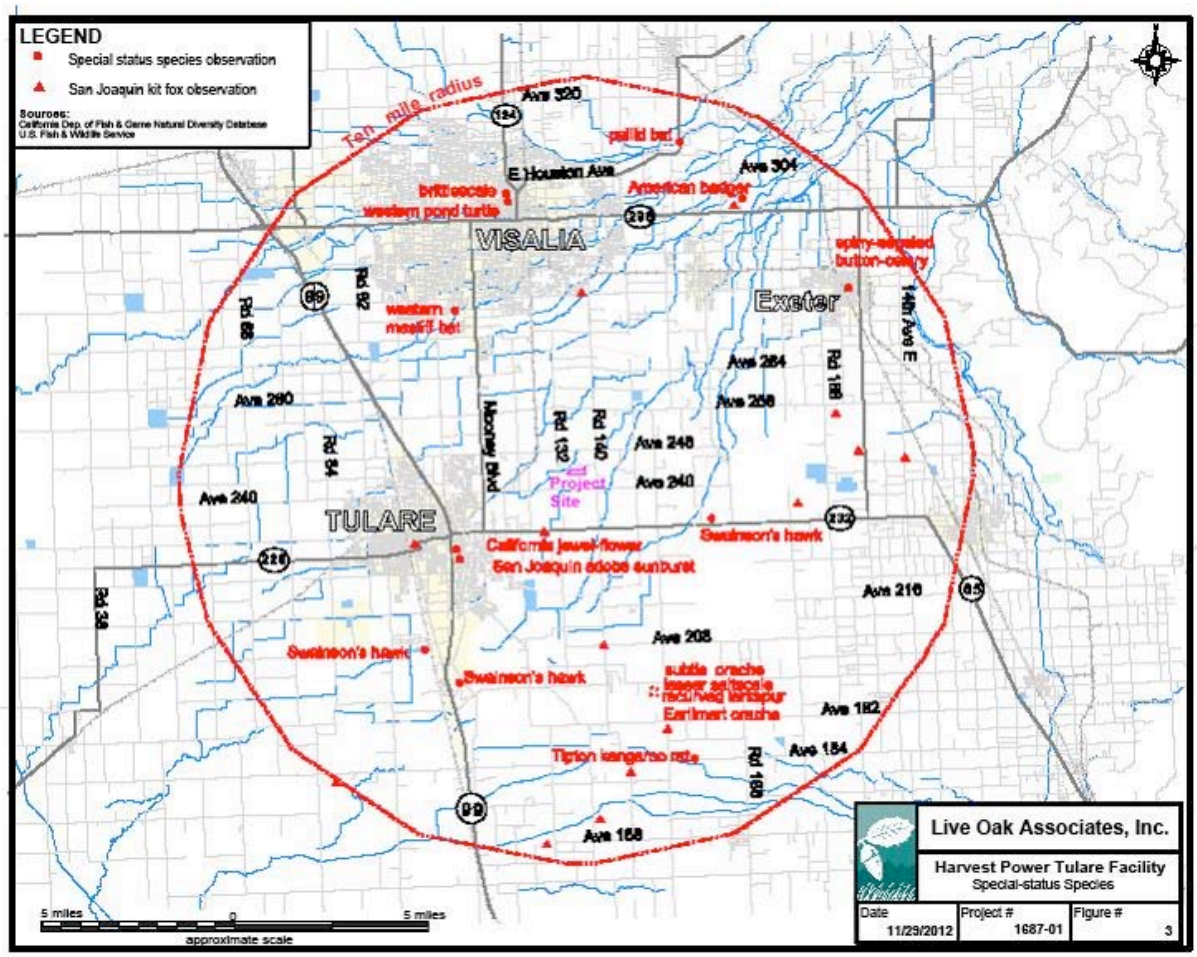
Potential for Harvest-Tulare Project Site Special Status Species

The Live Oak Associates report identified potential special status species which might occur onsite or in the project vicinity, listed in Table 1 of the report, reproduced below. Sources of information used in their research included: California's Wildlife, Volumes I,II, and III (Zeiner et. Al 1988-1990), California Natural Diversity Database (CDFW 2012), Endangered and Threatened Wildlife and Plants (USFWS 2012), Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants (CDFW 2011), and The California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California (CNPS 2012).

[26] Live Oak Associates, Biological Report, pages 6 and 7
[27] Ibid., page 7
[28] Ibid., page 24
[29] Ibid., pages 26 to 28

Based on the above search results, Live Oak Associates identified several special status species known to occur in the vicinity, and evaluated their potential to occur on the project site. A map of The California Natural Diversity Database (CNDDB) Rarefind 2012 database shows published accounts for all relevant special status plant and animal species for the Tulare USGS 7.5 minute quadrangle (in which the project occurs), and for eight surrounding quadrangles. While several special status species have been observed within ten miles of the project site, none have been observed within one mile of the project site. The Live Oak Associates report cautions that the CNDDB is a volunteer database and may not contain all known literature records. [30]

Figure 3.4-1
Special Species Map



[30] Ibid., pages 8 and 9

All special status species that could occur in the project vicinity and on the project site have been identified by Live Oak Associate and are listed in Table 3.4-1. These include nine special status plant species. Two of plant species listed as threatened or endangered under the State or Federal Endangered Species Act: California Jewel-Flower and San Joaquin Adobe Sunburst. Seven additional special status species are listed by the CNPS: Heartscale, Earlimart Orache, Brittlescale, Lesser Saltscale, Subtle Orache, Recurved Larkspur, and Spiny-Sepaled Button Celery. Live Oak Assoicates' report evaluated the required habitat for all of these species and determined that the Harvest-Tulare project site habitat and/or soils are unsuitable for all of the special status plants to occur on the project site.

Twenty special status animal species that could occur in the project vicinity are listed in Table 3.4-1. Eight of these are species listed as threatened or endangered under the State and/or Federal Endangered Species Act. These are: Vernal Pool Fairy Shrimp, Vernal Pool Tadpole Shrimp, Valley Elderberry Longhorn Beetle, California Tiger Salamander, Blunt-Nosed Leopard Lizard, Swainson's Hawk, Tipton Kangaroo Rat, and the San Joaquin Kit Fox. Live Oaks Associates determined that the project site provided unsuitable habitat for all of the above species with the possible exception of the Swainson's Hawk, listed as "Unlikely" to occur on the project site, based on the absence of suitable foraging and nesting habitat. The species might, however, occasionally pass over the site while foraging or during migration. The nearest recorded CNDDB 2012 recorded observation of the species is 3.4 miles to the southeast.[31]

Twelve additional animal species listed as State Species of Special Concern could potentially occur in the project vicinity include: Western Spadefoot Toad, Western Pond Turtle, Northern Harrier (nesting), White-tailed Kite (nesting), Mountain Plover, Burrowing Owl, and Loggerhead Shrike, Tricolored Blackbird, Pallid Bat, Townsend's Western Big-Eared Bat, Western Mastiff Bat, and American Badger. Five of these species are listed as "Absent" from the site due to unfavorable habitat. Four species (Tricolored Blackbird, Pallid Bat, Townsend's Western Big-Eared Bat and Western Mastiff Bat) are listed as "Possible" for occurrence on the project site, because they might potentially forage over the project site (but nesting habitat is absent). An additional three species (Northern Harrier, White-tailed Kite and Loggerhead Shrike) are determined to be "Unlikely" to occur on the site because, while they might occasionally pass over the site while foraging or during migration, the project site does not provide the necessary habitat for nesting or foraging of these species.[32]

[31] Ibid., page 11
[32] Ibid., pages 11 to 13

Table 3.4-1
List of Special Status Species that could occur in the project vicinity

PLANTS (adapted from CDFW 2012 and CNPS 2012)
Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence on the Project Site
California Jewel-Flower (*Caulanthus californicus*)	FE, CE, CNPS 1B	Chenopod scrub and valley and foothill grassland. Blooms February-May.	**Absent.** Habitats required by this species do not occur onsite.
San Joaquin Adobe Sunburst (*Pseudobahia peirsonii*)	FT, CE, CNPS 1B	Occurs in grasslands of the western foothills of the Sierra Nevada in heavy clay soils of the Porterville, Cibo, Mt. Olive and Centerville series. Blooms March-April.	**Absent.** The habitat and soils occurring on project site are unsuitable for this species.

Other special status plants listed by CNPS

Species	Status	Habitat	*Occurrence on the Project Site
Heartscale (*Atriplex cordulata var. cordulata*)	CNPS 1B	Occurs in cismontane woodland and valley and foothill grassland of the San Joaquin Valley; blooms April–October.	**Absent.** Historic and current commercial use of the site has rendered it unsuitable for this species.
Earlimart orache (*Atriplex cordulata var. erecticaulis*)	CNPS 1B	Occurs in valley and foothill grasslands between 131 and 328 feet. Blooms Aug.-Sep.	**Absent.** Historic and current commercial use of the site has rendered it unsuitable for this species.
Brittlescale (*Atriplex depressa*)	CNPS 1B.2	Occurs in relatively barren areas with alkaline clay soils in chenopod scrub, playas, valley grasslands, and vernal pools of the Central Valley.	**Absent.** Historic and current commercial use of the site has rendered it unsuitable for this species.
Lesser Saltscale (*Atriplex minuscula*)	CNPS 1B	Occurs in cismontane woodland and valley and foothill grassland of the San Joaquin Valley; blooms May–October.	**Absent.** Historic and current commercial use of the site has rendered it unsuitable for this species.
Subtle Orache (*Atriplex subtilis*)	CNPS 1B	Occurs in valley and foothill grasslands of the San Joaquin Valley. Blooms August-October.	**Absent.** Historic and current commercial use of the site has rendered it unsuitable for this species.
Recurved Larkspur (*Delphinium recurvatum*)	CNPS 1B	Chenopod scrub, cismontane woodlands, and alkaline soils of valley and foothill grasslands. Blooms March-May.	**Absent.** Historic and current commercial use of the site has rendered it unsuitable for this species.
Spiny-Sepaled Button Celery (*Eryngium spinosepalum*)	CNPS 1B	Vernal pools and wetland swales of Fresno and Tulare Counties. Blooms in April-May	**Absent.** Historic and current commercial use of the site has rendered it unsuitable for this species.

ANIMALS (adapted from CDFW 2012 and USFWS 2012)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence on the Project Site
Vernal Pool Fairy Shrimp (*Branchinecta lynchi*)	FT	Vernal pools of California's Central Valley.	**Absent.** Vernal pools required by this species are absent from the project site.
Vernal Pool Tadpole Shrimp (*Lepidurus packardi*)	FE	Primarily found in vernal pools of California's Central Valley.	**Absent**. Vernal pool habitat required by this species is absent from the project site.
Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*)	FT	Mature elderberry shrubs of California's Central Valley and Sierra Foothills.	**Absent.** Elderberry shrubs, the obligate habitat required by this species, are absent from the project site and surrounding lands.
California Tiger Salamander (*Ambystoma californiense*)	FT , CSC	Found primarily in annual grasslands. Breeds in vernal/ seasonal pools or perennial pools which lack fish or bullfrogs. Requires rodent burrows for refuge.	**Absent.** Historic and current commercial use of the site has rendered it unsuitable for this species. Breeding pools required by this species are absent from the project site and surrounding land. Furthermore, the project site is well south of this species' known range (CNDDB 2012).
Blunt-Nosed Leopard Lizard (*Gambelia silus*)	FE, CE, CP	Frequents grasslands, alkali meadows and chenopod scrub of the San Joaquin Valley.	**Absent.** Historic and current commercial use of the site has rendered it unsuitable for this species.
Swainson's Hawk (*Buteo swainsoni*)	CT	Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations.	**Unlikely.** At most this species may occasionally pass over the site while foraging or during migration. Suitable foraging and nesting habitat is absent from the project site. The nearest recorded observation is approximately 3.4 miles to the southeast (CNDDB 2012).
Tipton Kangaroo Rat (*Dipodomys nitratoides nitratoides*)	FE, CE	Chenopod scrub and alkali grasslands of the Tulare Basin from Fresno County in the north to Kern County in the south.	**Absent.** Historic and current commercial use of the site has rendered it unsuitable for this species.
San Joaquin Kit Fox (*Vulpes macrotis mutica*)	FE, CT	Frequents desert alkali scrub and annual grasslands and may forage in adjacent agricultural habitats. Utilizes enlarged (4 to 10 inches in diameter) ground squirrel burrows as denning habitat.	**Absent.** Historic and current commercial use of the site has rendered it unsuitable for this species.

State Species of Special Concern

Species	Status	Habitat	*Occurrence on the Project Site
Western Spadefoot (*Spea hammondii*)	CSC	Primarily occurs in grasslands, but also occurs in valley and foothill hardwood woodlands. Requires vernal pools or other temporary wetlands for breeding.	**Absent.** Vernal pools required by this species are absent from the project site and surrounding lands.
Western Pond Turtle (*Emys marmorata*)	CSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites of sandy banks or grassy open fields for egg	**Absent.** Aquatic habitat in the form of the onsite retention basin and watering hole provide unsuitable habitat for this species.

		laying.	
Northern Harrier (nesting) (*Circus cyaneus*)	CSC	Frequents meadows, grasslands, open rangelands, freshwater emergent wetlands; uncommon in wooded habitats.	**Unlikely.** At most this species may occasionally pass over the site while foraging or during migration. Intensive commercial activity on the site has eliminated foraging opportunity for this species. Nesting habitat is absent from the project site.
White-tailed Kite (nesting) (*Elanus leucurus*)	FP	Open grasslands and agricultural areas throughout central California.	**Unlikely.** At most this species may occasionally pass over the site while foraging or during migration. Intensive commercial activity on the site has eliminated foraging opportunity for this species. Continual human disturbance of the site has also eliminated the likelihood of this species nesting in adjacent trees.
Mountain Plover (*Charadrius montanus*)	CSC	Forages in short grasslands and freshly plowed fields of the Central Valley.	**Absent.** Historic and current commercial use of the site has rendered it unsuitable for this species. This species has not been documented in this portion of Tulare County.
Burrowing Owl (*Athene cunicularia*)	CSC	Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low growing vegetation. Dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows.	**Absent.** Historic and current commercial use of the site has rendered it unsuitable for this species.
Loggerhead Shrike (*Lanius ludovicianus*)	CSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low herbaceous cover. Can often be found in cropland.	**Unlikely.** At most this species may occasionally pass over the site while foraging or during migration. Intensive commercial activity on the site has eliminated foraging opportunity for this species. Continual human disturbance of the site has also eliminated the likelihood of this species nesting in adjacent trees.

State Species of Special Concern

Species	**Status**	**Habitat**	***Occurrence on the Project Site**
Tricolored Blackbird (*Agelaius tricolor*)	CSC	Breeds near fresh water, primarily emergent wetlands, with tall thickets. Forages in grassland and cropland habitats.	**Possible.** The site provides possible foraging habitat; breeding habitat is absent.
Pallid Bat (*Antrozous pallidus*)	CSC	Roosts in rocky outcrops, cliffs, and crevices with access to open habitats for foraging. May also roost in caves, mines, hollow trees and buildings.	**Possible.** This species may forage over the site; roosting habitat is absent.
Townsend's Western Big-Eared Bat (*Corynorhinus townsendii*)	CSC	Primarily a cave-dwelling bat that may also roost in buildings. Occurs in a variety of habitats.	**Possible.** This species may forage over the site; roosting habitat is absent.
Western Mastiff Bat (*Eumops perotis* ssp. *californicus*)	CSC	Frequents open, semi-arid to arid habitats, including conifer, and deciduous woodlands, coastal scrub, grasslands, palm oasis,	**Possible.** This species may forage over the site; roosting habitat is absent.

		chaparral and urban. Roosts in cliff faces, high buildings, trees and tunnels.	
American Badger (*Taxidea taxus*)	CSC	Found in drier open stages of most shrub, forest and herbaceous habitats with friable soils.	**Absent.** Historic and current commercial use of the site has rendered it unsuitable for this species.

Source: Live Oak Associates Biological Report

***Explanation of Occurrence Designations and Status Codes**

Present: Species observed on the sites at time of field surveys or during recent past.
Likely: Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.
Possible: Species not observed on the sites, but it could occur there from time to time.
Unlikely: Species not observed on the sites, and would not be expected to occur there except, perhaps, as a transient.
Absent: Species not observed on the sites, and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
FPE	Federally Endangered (Proposed)	CR	California Rare
FC	Federal Candidate	CP	California Protected
		CSC	California Species of Special Concern

CNPS	California Native Plant Society Listing		
1A	Plants Presumed Extinct in California	3	Plants about which we need more information – a review list
1B	Plants Rare, Threatened, or Endangered in California and elsewhere	4	Plants of limited distribution – a watch list
2	Plants Rare, Threatened, or Endangered in California, but more common elsewhere		

The Live Oak Associates report concluded that potentially significant impacts to biological resources due to the proposed Project are absent, because the current level of site disturbance has rendered the site unsuitable for all but the most disturbance-tolerant plant and animal species. Specifically, there are:

- No impacts on special status plant species, since the current Project site does not provide habitat that would allow these species to survive on site. No mitigation measures are warranted.[33]

- No impacts due to disturbance to migratory bird nests, since native bird species are not expected to nest on site and are not expected to be adversely impacted by the proposed Project. No mitigation measures are warranted.[34]

- No impacts due to loss of habitat or direct impact to special status animal species categorized as "absent" or "unlikely" to occur on the Project site. No mitigation measures are warranted.[35]

- No impacts due to loss of breeding, nesting, roosting, or denning habitat for special status animals, since the current project site lacks required habitats for special status species. No mitigation measures are warranted.[36]

- Limited impacts due to loss of foraging habitat for the four Special Status Animals that may occur onsite as occasional or regular foragers. The project site does not provide regionally important foraging habitat for these species, and much more suitable habitats are abundant throughout the region. Therefore, the proposed Project would not significantly reduce the amount or quality of foraging habitat currently available on the site. The loss of foraging habitat for special status animals is considered a less than significant impact. In addition, the proposed Project will not result in direct harm to individuals of these species. Therefore, no mitigation measures are warranted.[37]

<u>Cumulative Impact Analysis:</u> ***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, 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 Live Oak Associates methodology used to analyze potential impacts on sensitive species in the project area included a reconnaissance-level field survey and several database and literature searches providing site-specific information related to existing biological resources.

[33] Ibid., page 19
[34] Ibid.
[35] Ibid., page 20
[36] Ibid.
[37] Ibid., pages 20 and 21

Based on the disturbed site condition, reasonable inferences were made that it was unlikely that sensitive species would occur onsite. The report included 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.

The proposed Project will only contribute to cumulative impacts related to this checklist item if project specific impacts were to occur. As the proposed Project does not result in loss of habitat or direct impact to these special status species, no project-related or cumulative impacts will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

No loss of habitat or direct impact to these special status animals will occur; therefore, no mitigations are warranted.

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***

The Live Oak Associates site evaluation determined that no riparian or other sensitive habitats occur on or adjacent to the proposed Harvest-Tulare Project site.

The USFWS Recovery Plan for Upland Species of the San Joaquin Valley (1998) includes several sensitive species that may occur in Tulare County.[38] A few of these are also listed in **Table 3.4-1** list of sensitive species that could occur in the vicinity of the project site. These include two sensitive plant species (California Jewel Flower, Lesser Saltscale) and three animal species (San Joaquin Kit Fox, Tipton Kangaroo Rat, and Blunt-Nosed Leopard Lizard). **Table 3.4-1** notes that while these species could potentially exist in the project vicinity, "historic and current commercial use of the site has rendered it unsuitable for these species."[39]

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

[38] USFWS Recovery Plan, pages. 27, 54, 106, 113, and 122
[39] Live Oak Associates, Biological Report, pages 10 and 11

in other portions of the San Joaquin Valley; and therefore, cumulative impacts will extend beyond Tulare County political boundaries.

The Live Oak Associates report analyzed potential impacts on sensitive species and their habitats, including riparian habitats. A reconnaissance-level field survey was performed, and several database and literature searches providing site-specific information related to existing biological resources. Based on the disturbed site condition, reasonable inferences were made that the site did not provide habitat for sensitive species. The report included 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.

The proposed Project will only contribute to cumulative impacts related to this checklist item if project specific impacts were to occur. As the proposed Project does not result in loss of habitat or direct impact to these special status species, no project-related or cumulative impacts will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

No riparian or other sensitive habitats occur on or adjacent to the proposed Project site. Therefore, no mitigation measures are warranted.

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***

Aquatic and wetland areas on the project site are associated only with the onsite drainage basin and waterhole and are not federally protected wetlands as defined by Section 404 of the Clean Water Act. These are functioning elements of the current project permitted operations. The drainage and waterhole are isolated from any natural drainages and other potential jurisdictional waters.[40]

Cumulative Impact Analysis: ***No 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 will extend beyond Tulare County political boundaries.

[40] Ibid., page 21

The Live Oak Associates report analyzed potential impacts on federally protected wetlands, including marshes and vernal pools. Live Oak Associates performed a reconnaissance-level field survey and examined several database and literature searches providing site-specific information related to existing biological resources. The only onsite aquatic and wetland areas were associated with the onsite drainage basin and waterhole, both isolated from any natural drainages and other potential jurisdictional waters. Therefore, these areas do not meet the criteria of federally protected wetlands.[41]

The proposed Project will only contribute to cumulative impacts related to this checklist item if project specific impacts were to occur. As the proposed Project does not result in loss of habitat or direct impact to these special status species, no project-related or cumulative impacts will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

Since there are no federally protected wetlands on site, there are no project-related impacts and therefore no mitigation measures are required.

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: ***No Impact***

The project site does not serve as a fish or wildlife movement corridor. The existing perimeter chain-link fence will restrict the movement of wildlife through the site.[42]

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, 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 Tulare County political boundaries.

The Live Oaks Associates report analyzed potential impacts on habitats for sensitive species, including riparian and wildlife corridors. A reconnaissance-level field survey was performed, and several database and literature searches providing site-specific information related to existing biological resources. Based on the disturbed condition of the site, and the

[41] Ibid.
[42] Ibid.

fact that the existing site was surrounded by a chain link fence, reasonable inferences were made that the site did not provide corridors for wildlife or fish.[43] The report included 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.

There are no fish or wildlife corridors onsite, and therefore there will be no cumulative impacts.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

Because this project will not result in harmful effects on regional fish or wildlife movements, mitigation measures are not needed.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

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

There are no impacts to biological resources, and therefore there is no conflict with local policies or ordinances designed to protect biological resources.

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

The geographic area of this cumulative analysis is Tulare County.

Local policies relating to impacts on biological resources have been summarized (see above). There are no impacts to sensitive species requiring mitigation measures, and, therefore, there are no conflicting policies. No cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

There are no Project-related or cumulative impacts, and therefore no mitigation measures are required.

[43] Ibid.

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***

The proposed Project site is not subject to an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or state habitat conservation plan.

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

The geographic area of this cumulative analysis is California.

A summary of state, regional and local habitat conservation plants was included in the "Regulatory Setting" section, above.

There are not adopted Habitat Conservation Plans which relate to the project site. Therefore, there is no cumulative impact because the project Site is not subject to an HCP or other local, regional or state habitat conservation plan.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

There are no Project-related or cumulative impacts, and therefore no mitigation measures are required.

DEFINITIONS AND ACRONYMS

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.

(c) A species of animal or plant shall be presumed to be endangered, rare or threatened, as it is listed in:

(1) Sections 670.2 or 670.5, Title 14, California Code of Regulations; or

(2) Title 50, Code of Federal Regulations Section 17.11 or 17.12 pursuant to the Federal Endangered Species Act as rare, threatened, or endangered.

(d) A species not included in any listing identified in subdivision (c) shall nevertheless be considered to be endangered, rare or threatened, if the species can be shown to meet the criteria in subdivision (b).

(e) This definition shall not include any species of the Class Insecta which is a pest whose protection under the provisions of CEQA would present an overwhelming and overriding risk to man as determined by:

(1) The Director of Food and Agriculture with regard to economic pests; or

(2) The Director of Health Services with regard to health risks."[44]

Acronyms

(DFW)	California Department of Fish and Wildlife
(DPR)	California Department of Parks and Recreation
(CDF)	California Department of Forestry and Fire Protection
(CSC)	DFW Species of Special Concern
(Cal/EPA)	California Environmental Protection Agency
(HCP)	Habitat Conservation Plan
(LOA)	Live Oaks Associates
(MBTA)	The Migratory Bird Treaty Act (Federal)
(NCCP)	Natural Communities Conservation Planning Act (DFW)

[44] 2012 CEQA Guidelines, Section 15380

(NWP)	Nationwide Permit
(PSP)	Tulare County Special Use Permit
(SCE)	Candidate-Endangered Species (DFW)
(SCT)	Candidate-Threatened Species (DFW)
(USACE)	U.S. Army Corps of Engineers
(USFWS)	The U.S. Fish and Wildlife Service

REFERENCES

2012 CEQA Guidelines

Hartesveldt, David and Gurule, Jeff, Live Oaks Associates, Inc., "Harvest Power Tulare Project: Biological Evaluation, Tulare County, California, November 2012

Tulare County 2030 General Plan: Background Report, February 2010

Tulare County 2030 General Plan, August 2012

Tulare County 2030 General Plan Recirculated Draft Environmental Impact Report (RDEIR), February 2010

U.S. Fish & Wildlife Service, Recovery Plan for Upland Species of the San Joaquin Valley, California, (1998)

Cultural Resources
Chapter 3.5

SUMMARY OF FINDINGS

Impacts on Cultural Resources as a result of the proposed Project are determined to be less than significant with mitigation. No significant cultural resources were identified within ½ mile of the Project site by the Southern San Joaquin Valley Information Center, or by a field survey of the site performed by a qualified professional archaeologist. However, mitigation measures were added to address the possibility that cultural resources might be unearthed during any project-related ground disturbances.

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 followup 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 Harvest-Tulare Project meets CEQA requirements by addressing potential impacts to cultural resources on the proposed Project site. The "Environmental Setting" section provides a description of cultural resources in the region, with special emphasis on the proposed Project site and vicinity. The "Regulatory Setting" section provides a description of applicable State and local regulatory policies. Results of cultural

[1] "CEQA and Historical Resources" CEQA Technical Advice Series" http://ceres.ca.gov/ceqa/more/tas/page3.html

resources field study and reports from CHRIS are included. A description of potential impacts is provided, along with feasible mitigation measures to reduce the impacts to less than significant.

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]

[2] 2012 CEQA Guidelines, Section 15064.5 (b)

ENVIRONMENTAL SETTING

"Tulare County lies within a culturally rich province of the San Joaquin Valley. Studies of the prehistory of the area show inhabitants of the San Joaquin Valley maintained fairly dense populations situated along the banks of major waterways, wetlands, and streams. Tulare County was inhabited by aboriginal California Native American groups consisting of the Southern Valley Yokuts, Foothill Yokuts, Monache, and Tubatulabal. Of the main groups inhabiting the Tulare County area, the Southern Valley Yokuts occupied the largest territory."[3] The Project Study Area falls within territory occupied by the Choinok Yokut, the southernmost of three tribes in the flaring, slough-intersected delta of the Kaweah. They lived south of the City of Tulare City and south of Farmersville.[4]

"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 late 1849 or early 1850, a party under the leadership of John Wood settled on the south bank of the Kaweah River, about seven miles east of the present city of Visalia (Hoover et al. 1990:508). In April, 1852, Tulare County was created, with the county seat initially located at Woodsville. In 1853 the county seat was removed to Fort Visalia, located in the area bounded by Oak, Center, Garden and Bridge streets. The City of Tulare, founded by the Southern Pacific Railway Company in 1872, was designed to become the leading city of the county, as well as the county seat. Tragedy struck the city in the form of a succession of devastating fires, followed by massive debt, causing many to move their homes and business to Visalia. The city finally recovered in 1902 and became a thriving center for dairy farming."[5]

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."[6]

"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."[7]

[3] Tulare County 2030 General Plan: Goals and Policies Report, page 8-5
[4] Cultural Assessment, page 7
[5] Ibid., page 8
[6] Tulare County 2030 General Plan, page 8-5
[7] Ibid., page 8-6

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. These resources are available to the general public. They have been summarized in the Tulare County General Plan Update 2030 Background Report (2010).[8]

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

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.[9]

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

[8] Tulare County General Plan Background Report, pages 9-57 to 9-59
[9] Advisory Council on Historic Preservation, http://www.achp.gov/nrcriteria.html (updated March 11, 2008)

governor, and the State Historical Resources Commission, a nine-member state review board appointed by the governor.[10]

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 Resouraces 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.[11]

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.[12]

Tribal Consultation Requirements: SB 18 (Burton, 2004)

On September 29, 2004, Governor Schwarzenegger signed Senate Bill 18, Tribal Consultation Guidelines, into law. SB 18, enacted March 1, 2005, creates a mechanism for California Native American Tribes to identify culturally significant sites that are located within public or private lands within the city or county's jurisdiction. SB 18 requires cities and counties to contact, and offer to consult with, California Native American Tribes before adopting or amending a General Plan, a Specific Plan, or when designating land as Open Space, for the purpose of protecting Native American Cultural Places (PRC 5097.9 and 5097.993). The Native American Heritage Commission (NAHC) provides local governments with a consultation list of tribal governments with traditional lands or cultural places located within the Project Area of Potential Effect. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code §65352.3).

[10] Advisory Council on Historic Preservation, State Historic Preservation Officers, http://www.achp.gov/shpo.html, (updated Feb. 24, 2009)
[11] California Office of Historic Preservation, About OHP, http://ohp.parks.ca.gov/?page_id=1066
[12] California Register: Criteria for Designation, http://www.ohp.parks.ca.gov/?page_id=21238

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 §5024.1, Title 14 CCR, Section 4850 et seq.).

(2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4852) including the following:

   (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

   (B) Is associated with the lives of persons important in our past;

   (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

   (D) Has yielded, or may be likely to yield, information important in prehistory or history.

(4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1."[13]

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

[13] 2012 CEQA Guidelines, Section 15064.5(a)

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."[14]

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:

"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.

(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.

[14] 2012 CEQA Guidelines, Section 15064.5(c)

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.

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."

Local Policy & Regulations

Tulare County General Plan Policies

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

[15] 2012 CEQA Guidelines, Section 15064.5 (d)

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.

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***

A review of California Historical Resources Information System (CHRIS) cultural resource site records was conducted by the Southern San Joaquin Valley Historical Resources Information Center, Bakersfield (Center). In a letter dated July 5, 2012, Center staff stated that no cultural resources were identified on the project site or within a ½ mile radius of the project site. The CHRIS search included historic sites listed on the National Register of Historic Places, the California Inventory of Historic Resources, the California State Historic Landmarks Registry, and in the Center files of pertinent historical and archaeological data. The letter included the following recommendations: "If the expansion will take place on currently vacant land where no underground utilities exist… a professional archaeologist [should] conduct a field survey, prior to ground disturbance activities, to determine if cultural resources are present. If the land is already developed or heavily disturbed by operational activities, no further cultural resources investigation is needed at this time."[16] Recommendations included the cautionary note that should cultural resources be unearthed during ground disturbance activities, all work should halt and a qualified archaeologist should be called to assess the findings and make appropriate mitigation recommendations.

[16] CHRIS Report, page 2

On November 13, 2012, a qualified archaeologist (Kristina Roper) conducted a Cultural Resources Assessment, including a field survey of the Project Study Area. No historical resources or properties (i.e., properties eligible for listing on the National Register of Historical Properties or the California Register of Historic Resources) were identified as a result of surface inspection of the Project Study Area.

Neither the CHRIS search nor the cultural assessment by the qualified archaeologist identified cultural resources onsite or within ½ mile of the project area, and both suggested that no further cultural resources investigation is needed at this time. However, consistent with CEQA requirements, mitigation measures were recommended in the unlikely event cultural resources are unearthed during any ground disturbance activities. Mitigation measures would require that all work will immediately halt and that a qualified archaeologist be contacted to assess the findings and make appropriate mitigation recommendations. In addition, should human remains be encountered, the County Coroner should be contacted, and if the remains are determined to be Native American, then the Native American Heritage Commission should be contacted.[17] With the following mitigation measures, project specific impacts related to this checklist item will be 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. As the proposed Project would be mitigated to a level considered less than significant, cumulative impacts will also be considered less than significant with mitigation.

Mitigation Measures:

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 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] Cultural Assessment, page 10

3.5-2 **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**.

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

With implementation of the above mentioned mitigation measure(s), potential Project-specific and cumulative impacts related to this checklist item will be reduced level considered less than significant.

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***

See preceding section for results of the California Historic Information System (CHRIS) and Cultural Resource Assessment studies, both of which concluded that it was unlikely that significant cultural resources, including archaeological resources, would be found on the site.

The Native American Heritage Commission reported results of a Sacred Lands File Search for the project site on November 11, 2013. The search results did not indicate the presence of Native American cultural sites within ½ mile of the project site.

Cumulative Impact Analysis: ***Less than Significant Impact with Mitigation***

The geographic area of this cumulative analysis is Tulare County.

See the "Cumulative Impact Analysis" for the preceding section for a discussion of methodology used in analysis of cultural resources, including archaeological resources.

Consistent with CEQA requirements, mitigation measure 3.5-1 is added in the unlikely event that if cultural resources (including archaeological resources) are unearthed during any ground disturbance activities, all work will immediately halt and a qualified archaeologist will be contacted to assess the findings and provide appropriate mitigation recommendations.

The proposed Project would only contribute to cumulative impacts related to this checklist item, if Project-specific impacts were to occur. As the proposed Project would be mitigated to a level considered less than significant, cumulative impacts would also be considered less than significant with mitigation.

Mitigation Measures:

See mitigation measure 3.5-1.

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

With implementation of the above mentioned mitigation measure(s), potential project specific and cumulative impacts related to this checklist item will be reduced level considered 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 site is highly disturbed. No paleontological resources or sites, or unique geologic features have previously been encountered on the Project site. However, since it cannot conclusively be demonstrated that no subsurface paleontological resources are present, it is possible to mitigate potentially significant impacts with the following mitigation measure. With implementation of mitigation measure 3.5-2, Project specific impacts related to this checklist item will be reduced to a level considered less than significant.

Cumulative Impact Analysis: ***Less than Significant Impact with Mitigation***

The geographic area of this cumulative analysis is Tulare County.

The methodology used in analysis of cultural resource impacts included a review of California Historical Resources Information System (CHRIS) cultural resource site record files by the San Joaquin Valley Information Center. These files include known and recorded archaeological and historic sites, inventory and excavation reports filed with the office, and properties listed on the National Register of Historic Places, the Historic Property Data File (April 5, 2012) the California Historical Landmarks, the California Register, the California Inventory of Historic Resources and the California Points of Historical Interest.[18]

The proposed Project would only contribute to cumulative impacts related to this checklist item, if project specific impacts were to occur. As the proposed Project would be mitigated to a level considered less than significant, cumulative impacts will also be considered less than significant with mitigation.

Mitigation Measures:

3.5-3 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 owner 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

[18] CHRIS Report, page 1

Tulare County Resource Management Agency for review and approval. Upon approval, the plan shall be incorporated into the project.

Conclusion: ***Less than Significant with Mitigation***

With implementation of the above mentioned Mitigation Measure(s), potential Project-specific and cumulative impacts related to this checklist item will be reduced level considered 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 site is highly disturbed. No cultural resources have been encountered previously on the project site. On November 13, 2012, a qualified archaeologist (Kristina Roper) performed a surface inspection field survey of the site as part of a Cultural Resources Assessment. No archaeological deposits or isolated finds were identified during the cultural resources survey.[19]

The Native American Heritage Commission reported results of a Sacred Lands File Search for the project site on November 11, 2013. The search results did not indicate the presence of Native American cultural sites within ½ mile of the project site.[20]

Although it cannot conclusively be demonstrated that no subsurface human remains are present, it is possible to mitigate potentially significant impacts with the following mitigation measure. With implementation the mitigation measure 3.5-2, Project-specific impacts related to this checklist item would reduced to a level considered less than significant.

Cumulative Impact Analysis: ***Less than Significant Impact with Mitigation***

The geographic area of this cumulative analysis is Tulare County.

The methodology used in analysis of cultural resource impacts included a review of California Historical Resources Information System (CHRIS) cultural resource site record files by the San Joaquin Valley Information Center. These files include known and recorded archaeological and historic sites, inventory and excavation reports filed with the office, and properties listed on the National Register of Historic Places, the Historic Property Data File (April 5, 2012) the California Historical Landmarks, the California Register, the California Inventory of Historic Resources and the California Points of Historical Interest.[21]

[19] Cultural Assessment, pages 9 to 10
[20] Native American Heritage Commission Letter
[21] CHRIS Report, page 1

In addition, a Cultural Resources Assessment was prepared by a qualified professional archaeologist who researched the history of the site, prepared a historic context for the area based on literature and database searches, then visited the site and examined it for potential historic or cultural resources. The site was highly disturbed and no above-ground cultural resources were observed.[22]

Given the disturbed nature of the site and its location, it is not anticipated that Native American remains will be found at the site. However, consistent with CEQA requirements, Mitigation Measures were added in the unlikely event that if Native American remains are unearthed during any ground disturbance activities, all work will immediately halt and the Native American Heritage Association will be contacted to assess the findings and make appropriate mitigation recommendations.

The proposed Project would only contribute to cumulative impacts related to this checklist item, if Project-specific impacts were to occur. As the proposed Project will be mitigated to a level considered less than significant, cumulative impacts will also be considered less than significant with mitigation.

Mitigation Measures:

See mitigation measure 3.5-2.

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

With implementation of the above mentioned Mitigation Measure(s), potential Project-specific and cumulative impacts related to this checklist item will be reduced level considered less than significant.

DEFINITIONS/ACRONYMS

Acronyms

(CHRIS)	California Historic Resources Information System
CRHR)	California Register of Historical Resources
(HABS/HAER)	Historic American Building Survey/Historic American Engineering Record
(NAHC)	The Native American Heritage Commission
(NHPA)	National Historic Preservation Act of 1966
(OHP)	California State Office of Historic Preservation
(SHPO)	State Historic Preservation Officers

[22] Cultural Assessment, page 1

REFERENCES

Advisory Council on Historic Preservation, State Historic Preservation Officers, http://www.achp.gov/ shpo.html, updated Feb. 24, 2009

Advisory Council on Historic Preservation, http://www.achp.gov/nrcriteria.html, updated March 11, 2008

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Geology and Soils
Chapter 3.6

SUMMARY OF FINDINGS

The proposed Project will result in less than significant impacts related to Geology and Soils with mitigation. A detailed review of potential impacts is provided in the analysis that follows.

INTRODUCTION

California Environmental Quality Act (CEQA) Requirements

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

As noted in 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 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

[1] 2012 CEQA Guidelines, Section 15126.2 (a)

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

- Located on a Fault line
- Hazard to people or property
- Project subject to landslides
- 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."[2]

"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."[3]

"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."[4]

[2] General Plan Background Report, page 8-5
[3] Ibid.
[4] Ibid.

"Settlement can occur in poorly consolidated soils during groundshaking. During settlement, the soil materials are physically rearranged by the shaking and result in reduced stabling alignment of the individual minerals. Settlement of sufficient magnitude to cause significant structural damage is normally associated with rapidly deposited alluvial soils, or improperly founded or poorly compacted fill. These areas are known to undergo extensive settling with the addition of irrigation water, but evidence due to groundshaking is not available. Fluctuating groundwater levels also may have changed the local soil characteristics. Sufficient subsurface data is lacking to conclude that settlement would occur during a large earthquake; however, the data is sufficient to indicate that the potential exists in Tulare County."[5]

"Liquefaction is a process whereby soil is temporarily transformed to a fluid form during intense and prolonged groundshaking. Areas most prone to liquefaction are those that are water saturated (e.g., where the water table is less than 30 feet below the surface) and consist of relatively uniform sands that are low to medium density. In addition to necessary soil conditions, the ground acceleration and duration of the earthquake must be of sufficient energy to induce liquefaction. Scientific studies have shown that the ground acceleration must approach 0.3g before liquefaction occurs in a sandy soil with relative densities typical of the San Joaquin alluvial deposits. Liquefaction during major earthquakes has caused severe damage to structures on level ground as a result of settling, tilting, or floating. Such damage occurred in San Francisco on bay-filled areas during the 1989 Loma Prieta earthquake, even though the epicenter was several miles away. If liquefaction occurs in or under a sloping soil mass, the entire mass may flow toward a lower elevation, such as that which occurred along the coastline near Seward, Alaska during the 1964 earthquake. Also of particular concern in terms of developed and newly developing areas are fill areas that have been poorly compacted."[6]

Earthquake Hazards

"Groundshaking is the primary seismic hazard in Tulare County because of the county's seismic setting and its record of historical activity. Thus, emphasis focuses on the analysis of expected levels of groundshaking, which is directly related to the magnitude of a quake and the distance from a quake's epicenter. Magnitude is a measure of the amount of energy released in an earthquake, with higher magnitudes causing increased groundshaking over longer periods of time, thereby affecting a larger area. Groundshaking intensity, which is often a more useful measure of earthquake effects than magnitude, is a qualitative measure of the effects felt by population. The valley portion of Tulare County is located on alluvial deposits, which tend to experience greater groundshaking intensities than areas located on hard rock. Therefore, structures located in the valley will tend to suffer greater damage from groundshaking than those located in the foothill and mountain areas. However, existing alluvium valleys and weathered or decomposed zones are scattered throughout the mountainous portions of the county which could also experience stronger intensities than the surrounding solid rock areas. The geologic characteristics of an area can therefore be a greater hazard than its distance to the epicenter of the quake."[7]

[5] Ibid., page 8-9
[6] Ibid.
[7] Ibid., page 8-7

"There are three faults within the region that have been, and will be, principal sources of potential seismic activity within Tulare County. These faults are described below:

- **San Andreas Fault.** The San Andreas Fault is located approximately 40 miles west of the Tulare County boundary. This fault has a long history of activity, and is thus the primary focus in determining seismic activity within the county. Seismic activity along the fault varies along its span from the Gulf of California to Cape Mendocino. Just west to Tulare County lies the "Central California Active Area," where many earthquakes have originated.
- **Owens Valley Fault Group.** The Owens Valley Fault Group is a complex system containing both active and potentially active faults, located on the eastern base of the Sierra Nevada Mountains. The Group is located within Tulare and Inyo Counties and has historically been the source of seismic activity within Tulare County.
- **Clovis Fault.** The Clovis Fault is considered to be active within the Quaternary Period (within the past two million years), although there is no historic evidence of its activity, and is therefore classified as "potentially active." This fault lies approximately six miles south of the Madera County boundary in Fresno County. Activity along this fault could potentially generate more seismic activity in Tulare County than the San Andreas or Owens Valley fault systems. In particular, a strong earthquake on the Fault could affect northern Tulare County. However, because of the lack of historic activity along the Clovis Fault, inadequate evidence exists for assessing maximum earthquake impacts."[8]

"Older buildings constructed before current building codes were in effect, and even newer buildings constructed before earthquake resistance provisions were included in the current building codes, are most likely to suffer damage in an earthquake. Most of Tulare County's buildings are no more than one or two stories in height and are of wood frame construction, which is considered the most structurally resistant to earthquake damage. Older masonry buildings (without earthquake-resistance reinforcement) are the most susceptible to structural failure, which causes the greatest loss of life. The State of California has identified unreinforced masonry buildings as a safety issue during earthquakes. In high risk areas (Bay Area) inventories and programs to mitigate this issue are required. Because Tulare County is not a high risk area, state law only recommends that programs to retrofit URMs are adopted by jurisdictions."[9]

Soils and Liquefaction

"The San Joaquin Valley portion of Tulare County is located on alluvial deposits, which tend to experience greater groundshaking intensities than areas located on hard rock. Therefore, structures located in the valley will tend to suffer greater damage from groundshaking than those located in the foothill and mountain areas. However, existing alluvium valleys and weathered or decomposed zones are scattered throughout the mountainous portions of the county which could also experience stronger intensities than the surrounding solid rock areas. The geologic characteristics of an area can therefore be a greater hazard than its distance to the epicenter of the

[8] Ibid., pages 8-6 and 8-7
[9] Ibid., page 8-8

quake."[10]

"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."[11]

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)."[12]

REGULATORY SETTING

Federal Agencies & Regulations

None that apply to the proposed 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."[13]

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

[10] Ibid., page 8-7
[11] Ibid., page 8-9
[12] Ibid., page 8-10
[13] Ibid., page 8-3

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."[14]

Local Policy & Regulations

Tulare County General Plan Policies

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

ERM-7.2 Soil Productivity
The County shall encourage landowners to participate in programs that reduce soil erosion and increase soil productivity. To this end, the County shall promote coordination between the Natural Resources Conservation Service, Resource Conservation Districts, UC Cooperative Extension, and other similar agencies and organizations.

ERM-7.3 Protection of Soils on Slopes
Unless otherwise provided for in this General Plan, building and road construction on slopes of more than 30 percent shall be prohibited, and development proposals on slopes of 15 percent or more shall be accompanied by plans for control or prevention of erosion, alteration of surface water runoff, soil slippage, and wildfire occurrence.

HS-2.1 Continued Evaluation of Earthquake Risks
The County shall continue to evaluate areas to determine levels of earthquake risk.

HS-2.4 Structure Siting
The County shall permit development on soils sensitive to seismic activity permitted only after adequate site analysis, including appropriate siting, design of structure, and foundation integrity.

HS-2.7 Subsidence
The County shall confirm that development is not located in any known areas of active subsidence. If urban development may be located in such an area, a special safety study will be prepared and needed safety measures implemented. The County shall also request that developments provide evidence that its long-term use of 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.

[14] Ibid., page 8-3

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.

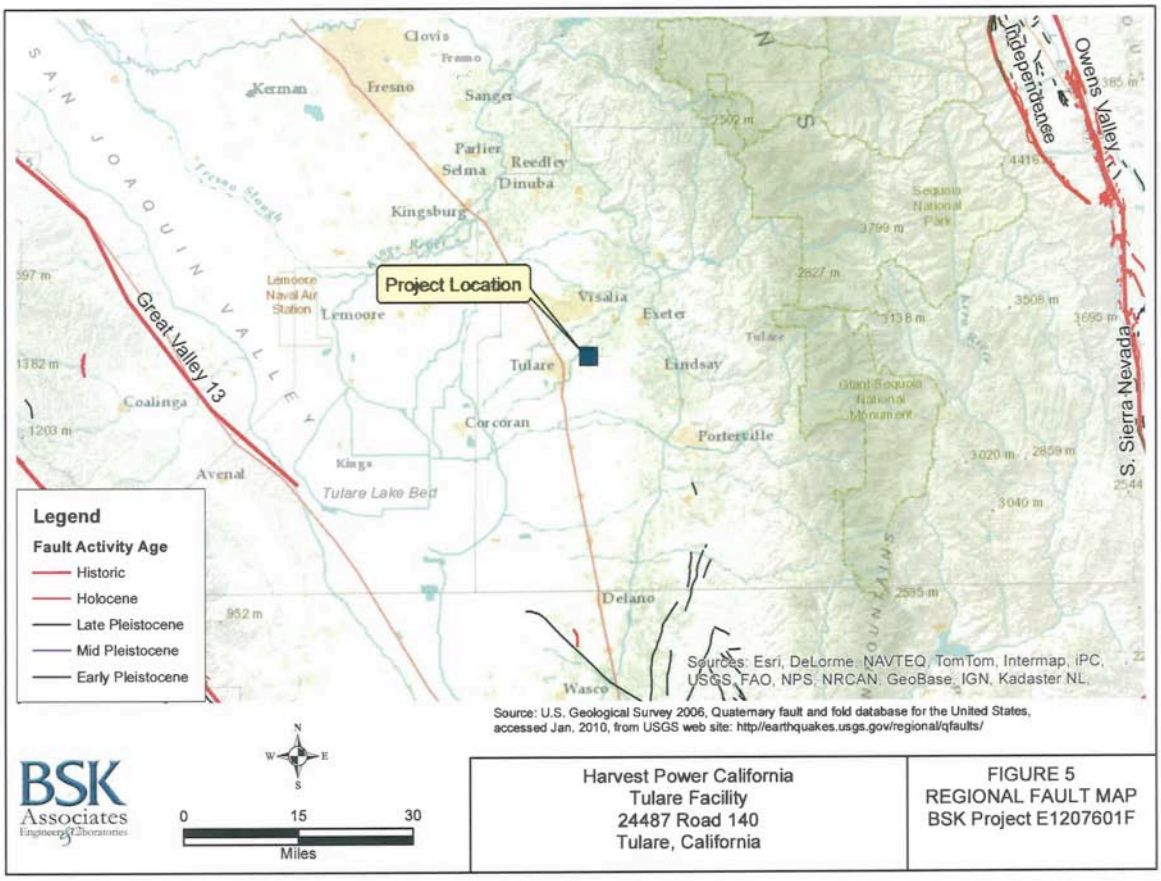
According to the Division of Mines and Geology Publication 42 and the "GIS files of Official Alquist-Priolo Earthquake Fault Zones, Central California Region," the proposed site does not lie within an Alquist-Priolo Special Studies Zone. According to the USGS Quaternary faults and fold database for the United States, there are no mapped active faults at the site. According to the Safety element of the 2010 Tulare County General Plan, the site is not intersected by known faults. There are few faults associated with surface rupture from faults in the vicinity of the Project and hence area and hence there is no impact.[15]

ii) Strong seismic ground shaking?

"The site is located in an area of California with low to moderate seismicity. The site is located in an area of California with low to moderate seismicity. Deaggregation of the seismic hazard was performed by using the USGS Interactive Deaggregation website. The deaggregation at the Maximum Considered Earthquate (MCE) hazard level results in distance, magnitude, and epsilon (round motion undertainty) for each source which contributes to the hazard. In general, the site may experience relatively moderate ground motion, primarily from the California Crustal Gridded Source (background seismicity), which is capable of a 5.9 magnitude earthquake. Other active faults include San Andreas (7.9 magnitude) and Great valley 7.1 magnitude), which are located 66 and 40 miles away. Ground motion acceleration parameters are dependent on the amplification properties of the subsurface units present at the site: a Geotechnical investigation would be required to characterize site ground motion acceleration values."[16] The impact to the area is less than significant, however because the Project will be constructed to CalRecycle and Environmental Health Standards the Project will create no impact.

[15] Preliminary Soil and Geology Study, page 3
[16] Ibid., age 4

Figure 3.6-1
Earthquake Faults



iii) Seismic-related ground failure, including liquefaction?

"The site is not currently located in a Seismic Hazard Zone (liquefaction) specified by the State of California or Tulare County. Liquefaction potential depends on soil type, void ratio, depth to groundwater, duration of shaking and confining pressures over the potentially liquefiable soil mass. Fine, well sorted, loose sand, shallow groundwater, sever seismic ground motion, and particularly long durations of ground shaking are conditions conducive for liquefaction.

Based on historical shallow depth to groundwater the potential for liquefaction may exist at the site and should be evaluated in the Geotechnical Investigation. To evaluate the site soil density and liquefaction potential, the investigation should include soil borings completed to depths of 50 feet bgs."[17]

[17] Ibid.

iv) Landslides?

Landslides are not a significant threat as the topography in the Project area is relatively flat. The site is not currently located in the Seismic Hazard Zone (Landslide) specified by State of California or Tulare County.[18]

Project Impact Analysis: ***Less than Significant Impact with Mitigation***

According to the Geotechnical Report, the existing site in 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 will have to comply with all Environmental Health and CalRecycle requirements for the construction of tanks and equipment, including the CNG/CHU tanks. In addition, the existing site is not located in a Liquefaction Hazard Zone. As the site is relatively flat, there is no potential for landslides. Less than significant Project-specific impacts related to this checklist item will occur.

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

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

The proposed Project will not increase geotechnical related impacts off-site. No cumulative impacts related to this checklist item will occur.

Mitigation Measures:

3.6-1 The Project shall incorporate all recommendations contained within the Preliminary Soil and Geology Phase 1 Study. During Project site design, construction, and operations to reduce any potential geotechnical hazards at the Project site. These recommendations shall be stipulated in the construction contracts and specifications.

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

With implementation of the aforementioned mitigation measures, potential Project-specific and cumulative impacts related to this checklist item will be reduced level considered less than significant.

[18] Ibid., page 6

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

Project Impact Analysis: ***Less than Significant Impact with Mitigation***

The Project site is not located on a slope and is not located along a stream, river, or other designated waterway. The Project is relatively flat and prone to inundation and sedimentation by standing water than to soil erosion by the runoff of water. With respect to potential soil erosion by wind, earthwork at the sites during construction might cause some disturbed soils to be affected by wind erosion. After construction at the proposed sites, vehicles in high traffic areas will contribute to pulverization of soil making it susceptible to wind entrainment (erosion). Implementation of mitigation measures may be necessary during construction and operation of the proposed facility to minimize potential soil entrainment by wind at the site. The site is primarily flat and soil erosion is not anticipated. As such no Project-specific impacts related to this checklist item will occur.

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

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

The Project site is not located on slope or adjacent to a designated waterway. The proposed Project also does not involve changes that will affect offsite hillsides or designated waterways. In addition, the composting at the site will not reduce topsoil on other parcels. No cumulative impacts related to this checklist item will occur.

Mitigation Measures:

See mitigation measure 3.6-1.

See mitigation measure 3.9-6.

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

As noted earlier, no Project-specific or cumulative impacts related to this checklist item will occur.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Project Impact Analysis: ***Less than Significant Impact with Mitigation***

"The site is located on units mapped as Recent Alluvial Fan Deposits. They are unlikely to become instable. Land subsidence in CA generally occurs in areas of fluid removal and in arid areas… This site is not located in an area known for potential hydro-compaction or regional settlement from petroleum and groundwater withdrawal.[19]"

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 Project will have a minor impact on soil compaction on the Project site. This minor compaction will have a *de minimus* impact of on-site soils. Although the proposed Project will include minor amounts of excavation for the construction of the anaerobic digester, this excavation will not impact the soils in the immediate area. As such, less than significant cumulative impacts related to this checklist item will occur.

Mitigation Measures:

See mitigation measure 3.6-1.

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

As noted above, mitigation measure 6.1 will reduce impacts Project-specific impacts to a level considered less than significant. Less then significant cumulative impacts will occur.

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 with Mitigation***

"The Site Soils Engineering Properties presents characteristics for Western Tulare County. The native soils are (Nord find sandy loam) are predominantly sandy soils with non-plastic fines... These soils types are generally considered as having none to very low expansion potential. Although native soils are anticipated to have none to low expansion potential, the existing site operation involve the aerobic digestion mulching of manure and green waste. The import of material to the site over time may have resulted in expansive soils being

[19] Ibid., page 8

brought in and placed on site. Determination of the expansion potential of the existing near surface soils would be performed as part of the Geotechnical Investigation.[20]

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 Project will have no impacts related to expansive soils. As such, no impacts related to this checklist item will occur.

Mitigation Measures:

See mitigation measure 3.6-1.

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

As noted earlier, Mitigation Measure 3.6-1 will reduce impacts Project-specific impacts to a level considered less than significant. Less than significant cumulative impacts will occur.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Project Impact Analysis: ***Less than Significant Impact with Mitigation***

There is an existing septic tank on the Project site. No additional septic tank or absorption field. However, the site will be used to hold effluent from the digester that will be stored in tanks or in a covered lagoon on site. The spoils underneath these holding facilities will be required to undergo a geotechnical investigation for structural components prior to the issuance of a building permit.

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 Project will have no impacts related to soils suitable for septic tanks. In addition, the proposed Project will have no impacts related to the use of septic tanks on other properties. As such, no impacts related to this checklist item will occur.

[20] Ibid., page 6

Mitigation Measures:

See mitigation measure 3.6-1.

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

As noted above, mitigation measure 3.6-1 will reduce impacts Project-specific impacts to a level considered less than significant.

DEFINITIONS/ACRONYMS

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)."[21]

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."[22]

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 groundshaking."[23]

[21] General Plan Background Report, page 8-2
[22] Ibid.
[23] Ibid.

REFERENCES

Tulare County 2030 General Plan, August 2012

Tulare County 2030 General Plan Background Report, February 2010

Preliminary Soil and Geology Phase 1 Study, BSK Associates, December 5, 2012

2012 CEQA Guidelines

Greenhouse Gas Emissions
Chapter 3.7

SUMMARY OF FINDINGS

The proposed Project will not have any significant impacts related to Greenhouse Gas (GHG) Emissions. A detailed review of potential impacts is provided in the analysis below.

INTRODUCTION

California Environmental Quality Act (CEQA) Requirements

Section 15064.4 Determining the Significance of Impacts from Greenhouse Gas Emissions

"(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

(1) 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."[1]

[1] 2012 CEQA Guidelines, Section 15064.4

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 (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)."[2]

"These gases trap some amount of solar radiation and the Earth's own radiation, preventing it from passing through Earth's atmosphere and into space. Greenhouse gases are vital to life on Earth; without them Earth would be an icy planet. CO_2 is also a trace element that is essential to the cycle of life. It is essential to plant growth and studies have shown that vegetation growth has increased in North America commensurate with the increase in CO_2 over the past decades. However, increasing greenhouse gas concentrations tend to warm the planet. A warming trend of about 0.7°F to 1.5°F reportedly occurred during the 20th century, and a number of scientific analyses indicate that rising levels of greenhouse gases in the atmosphere may be contributing to climate change.

As the average temperature of the Earth increases, weather may be affected, including changes in precipitation patterns, accumulation of snow pack, and intensity and duration of spring snowmelt. There may be rises in sea level, resulting in coastal erosion and inundation of coastal areas. Emissions of air pollutants and ambient levels of pollutants also may be affected in areas. Climate zones may change, affecting the ecology and biological resources of a region. There may be changes in fire hazards due to the changes in precipitation and climate zones.

While scientists have established a connection between increasing CO_2 concentrations and increasing average temperatures, important scientific questions remain about how much warming will occur, how fast it will occur, and how the warming will affect the rest of the climate system. At this point, scientific efforts are unable to quantify the degree to which human activity impacts climate change. The phenomenon is worldwide, yet it is expected that there will be substantial regional and local variability in climate changes. It is not possible with today's science to determine the affect of global climate change in a specific locale, or whether the effect of one aspect of climate change may be counteracted by another aspect of climate change, or exacerbated by it.

Human activities generate greenhouse gases. Since pre-industrial times, there has been a build-up of levels of gases like carbon dioxide (CO_2) in the atmosphere. The human contribution to the increase in atmospheric CO_2 concentrations largely has resulted from the burning of fossil fuels. Fossil fuel combustion accounts for approximately 98% of carbon dioxide emissions from human activity.

[2] General Plan Background Report, page 6-17

The United States has the highest emissions of greenhouse gases of any nation on Earth, though CO_2 emissions in California are less than the national average, both in per capita emissions and in emissions per gross state product. Transportation is the largest source of CO_2 emissions in California, accounting for approximately 41 percent of total emissions. Electricity generation accounts for approximately 22 percent of CO_2 emissions in California, and the industrial sector accounts for approximately 20.5 percent.[3]"

"In 2007, Tulare County generated approximately 5.2 million tonnes of Carbon Dioxide Equivalent (CO_2e). The largest portion of these emissions (63 percent) is attributed to dairies/feedlots, while the second largest portion (16 percent) is from mobile sources."[4]

Table 3.7-1
Emissions by Sector in 2007[5]

Sector	CO_2e (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**	

Source: General Plan Background Report

As a solid waste project, the Project is currently permitted to accept 500 tons per day, and plans to expand its permitted capacity to 1,000 tons per day. Increasing the throughput tonnages will have greenhouse gas impacts. "Processing a greater amount of material will generate more emissions, but the avoided emissions from recycling, composting and providing biomass energy feedstock will reduce greenhouse gas emissions."[6]

The Tulare County General Plan contains the following: "Enhancement of the greenhouse effect can occur when concentrations of GHGs exceed the natural concentrations in the atmosphere. Of these gases, CO_2 and methane are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas methane primarily results from off-gassing associated with agricultural practices and landfills. SF_6 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.

[3] Air Quality Impact Analysis, pages 38-39
[4] General Plan Background Report, page 6-33
[5] Ibid., page 6-34
[6] Air Quality Impact Analysis, pages 38 to 39

Some of the potential resulting effects in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CARB, 2006). Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects (IPCC, 2001):

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;
- Increase of heat index over land areas; and
- More intense precipitation events.

Also, there are many secondary effects that are projected to result from global warming, including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood, and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great."[7]

Thresholds of Significance

"The San Joaquin Valley Air Pollution Control District proposes the following process… for determining the cumulative significance of project specific GHG emissions on global climate change when issuing permits for stationary source projects:"[8]

- "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."[9]
- "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, consistent with GHG emission reduction targets established in ARB's AB 32 Scoping Plan. Projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG."[10]
- "Projects requiring preparation of an Environmental Impact Report would require

[7] General Plan Background Report, pages 6-27 to 6-28
[8] District Policy, Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency, page 8
[9] Ibid, page 8
[10] Ibid, page 9

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."[11]

REGULATORY SETTING

Federal Agencies & Regulations

US EPA Waste Reduction Model (WARM)

"EPA created the Waste Reduction Model (WARM) to help solid waste planners and organizations track and voluntarily report greenhouse gas (GHG) emissions reductions from several different waste management practices… WARM calculates and totals GHG emissions of baseline and alternative waste management practices—source reduction, recycling, combustion, composting, and landfilling. The model calculates emissions in metric tons of carbon equivalent (MTCE), metric tons of carbon dioxide equivalent (MTCO2E), and energy units (million BTU) across a wide range of material types commonly found in municipal solid waste (MSW). For information on the data and methodologies behind the calculations, please see the model documentation.

WARM is periodically updated as new information becomes available and new material types are added. Users may refer to the model history to better understand the differences among various versions of WARM."[12]

State Agencies & Regulations

California Air Resources Board

"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."[13] The California Air Resources Board has prepared the 2004 Carbon Monoxide State Implementation Plan.

San Joaquin Valley Air Pollution Control District (Air District)

"The San Joaquin Valley Air 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

[11] Ibid, page 9
[12] Waste Reduction Model (WARM), http://www.epa.gov/climatechange/waste/calculators/Warm_home.html
[13] Cal/EPA Air Resources Board, http://www.arb.ca.gov/desig/desig.htm

air quality-management strategies."[14] "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."[15]

The San Joaquin Valley Air Pollution Control District (Air District) determined that the quantification of GHG Emissions is expected for all projects that require an Environmental Impact Report.[16]

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 AIR DISTRICT, which administers air quality regulations for Tulare County). Compliance strategies are presented in district-level air quality attainment plans."[17]

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]

[14] http://www.valleyair.org/General_info/aboutdist.htm#Mission
[15] Ibid.
[16] District Policy, Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency, page 6
[17] Tulare County 2030 General Plan RDEIR, pages 3.3-2 to 3.3-3
[18] General Plan Background Report, page 6-19

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.

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

[19] General Plan Background Report, page 6-20

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]

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."[21]

Compost Reduction Emission Factor (CERF)

CERF has been established by the California Air Resources Board. "The boundary, or life-cycle stages used to quantify the compost emission reduction factor (CERF),… establishes the greenhouse gas emission reductions of compost application and greenhouse gas emissions from composting organic waste… There are three main emission sources that occur during the composting process: transportation emissions occurring from the collection of the initial feedstock and delivery of the finished compost; energy and water emissions from the composting management process; and fugitive emissions from the anaerobic decomposition of the composted materials. The significance of each emission is important because it detracts from the overall emission benefit of compost use. The emissions that are discussed in this method are consistent with the emissions in studies evaluating the GHG emissions from composting."[22]

[20] General Plan Background Report, page 6-23 to 6-24
[21] Ibid., page 6-24 to 6-25
[22] Method for estimating greenhouse gas emission reductions from compost from commercial organic waste, page 5

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 below.

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 §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.

AQ-1.10 Alternative Fuel Vehicle Infrastructure
County shall support the development of necessary facilities and infrastructure needed to encourage the use of low or zero-emission vehicles (e.g. electric vehicle charging facilities and conveniently located alternative fueling stations, including CNG filling stations.)

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."[23]

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 (Overall Benefit)***

Truck and Equipment Usage

"The primary source of GHG emissions from the proposed Project is from mobile sources and construction equipment. There are a number of factors available for estimating the GHG from mobile sources and combustion engines used in composting operations. The GHG from the proposed Project were estimated using the CalEEMod and EMFAC2001 emissions model programs and California Climate Action Registry - IPCC Emissions Factors and are shown in **Table [3.7-2]**.

Table 3.7-2
Estimated Non-Mitigated Annual Greenhouse Gas Emissions (Tons/Year)

Source	CO_2 (tons/yr)	CH_4 (tons/yr)	N_2O (tons/yr)	CO_2e (tons/yr)	CO_2e (tons/day)	CO_2e (tons/wk)
Construction Emissions						
Construction Emissions (2013)	508.51	0.06	0.00	509.70	1.96	9.80
Construction Emissions (2014)	59.64	0.01	0.00	59.78	2.85	14.23
Operational Emissions						
On-site Equipment Emissions	103.15	0.01	0.00	103.40	0.33	1.98
Truck Travel Emissions	308.88	0.06	0.00	311.30	0.99	5.97
Total Operational Emissions	412.03	0.07	0.00	414.70	1.32	7.95
AIR DISTRICT Threshold	-	-	-	25,000	-	-
Is Threshold Exceeded?	-	-	-	**No**	-	-

*Note: 0.00 could represent <0.00
Source: Air Quality Impact Analysis

The proposed Project will not result in the emissions of hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), or sulfur hexafluoride (SF6), the other gases identified as GHG in AB32. However, the impacts on global warming and climate change are indirect, not direct, and the emissions cannot be correlated with specific impacts based on currently available

[23] Tulare County Climate Action Plan, page 1

science. While climate change may be presumed to have global impacts, local government lacks the expertise, and/or regulatory authority to develop the scientific tools and policies needed to select a CEQA significance threshold for climate change or greenhouse gas emissions. The proposed Project will be subject to any regulations developed under AB32 as determined by CARB."[24]

"However, since the Air District uses a 25,000 metric ton CO2e threshold for permitting purposes this analysis utilized that threshold for a significance impact limit on global climate change or on the environment in California. As demonstrated in Table 11-1, this project does not exceed the Air District threshold of 25,000 metric tons of CO2e, therefore, the project's cumulative impacts to global climate change are considered Less Than Significant."[25]

Anaerobic Digester

According to the Waste Reduction Model (WARM), diversion of 60,000 tons of food scraps from landfills would result in a GHG reduction of 41,471 $MTCO_2E$ (Metric Tons of CO_2 Equivalent). Another 7,230 $MTCO_2E$ could be saved through combustion of food scraps. The total potential GHG reduction would be 48,702 $MTCO_2E$.[26] Although anaerobic digestion does not result in immediate combustion, the use of natural gas could have similar GHG reduction from electricity generation as combustion. Without specific GHG reduction data applicable to the anaerobic digester proposed as part of the Project, this Waste Reduction Model estimate is the best available approximation for GHG benefits that could be derived from the anaerobic digester.

Composting

In addition to the anaerobic digester, the expanded tonnage of composting would have further GHG benefits. The US Composting Council found the following three benefits:

- "The biggest benefit for most composting projects comes from emission avoidance; primarily from keeping methane generating organics out of landfills or lagoons. Landfills with methane capture systems result in less GHG benefits.
- The composting process has the potential to produces some GHG, but those can be minimized. Good composting practices that balance the carbon:nitrogen ratio and provide adequate aeration and moisture will minimize GHG emissions.
- The end use of the compost provides some GHG benefits, both directly through sequestration and indirectly through improved soil health, reduced soil loss, increased water infiltration and storage, and reduction of other inputs."[27]

There is variability in the actual amount of GHG reduction through composting because of variability in materials, soil moisture, aeration, etc. For the State of California, the compost emission reduction factor (CERF) is standard for GHG reduction for compost. The

[24] Air Quality Impact Analysis, pages 38 to 39
[25] Ibid., pages 38 to 39
[26] Waste Reduction Model website, http://www.epa.gov/climatechange/waste/calculators/Warm_Form.html
[27] Greenhouse Gases and the Role of Composting: A Primer for Compost Producers, http://compostingcouncil.org/admin/wp-content/uploads/2010/09/Greenhouse-Gases-and-the-Role-of-Composting.pdf

California Air Resources Board calculated a CERF of 0.42 $MTCO_2E$/ton of feedstock. With this factor, the additional 60,000 tons of compostable material will result in a GHG reduction of 25,200 $MTCO_2E$. This will be an environmental benefit in terms of GHG reduction.

Total GHG Impact

The total potential GHG impact from the proposed Project is an estimated reduction of 73,487 $MTCO_2E$. See **Table 3.7-3** below.

Table 3.7-3
Total Change in GHG

Project Element	**GHG Change** $MTCO_2E$
Truck & Equipment Operations	414.70
Anaerobic Digester	(48,702)
Composting	(25,200)
Total	(73,487.3)

Source: Derived from Air Quality Impact Analysis, WARM Website, and CERF calculation.

With an overall reduction in GHGs, the proposed Project will result in less than significant Project specific impacts.

Cumulative Impact Analysis: ***Less than Significant Impact (Overall Benefit)***

The geographic area of this cumulative analysis is the San Joaquin Air Basin. This cumulative analysis is based on the information provided in the Air Quality Impact Assessment

Truck and Equipment Usage

"In 2030, Tulare County is forecast to generate approximately 6.1 million tonnes of CO_2e. The largest portion of these emissions (59 percent) is attributed to dairies/feedlots, while the second largest portion (20 percent) is from mobile sources. Per capita emissions in 2030 are projected to be approximately 27 tonnes of CO_2E per resident."[28]

Table 3.7-4[29]
Projected Emissions by Sector in 2030

Sector	**CO_2e (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%

[28] General Plan Background Report, page 6-34
[29] Ibid., page 6-34

Total	**6,105,480**	**100%**
Per capita	**27.4**	

Source: General Plan Background Report

"The Project will potentially contribute to cumulative greenhouse gas emissions in California as well as related health effects. The Project emissions will be only a small fraction of the statewide greenhouse gas emissions. However, without the necessary science and analytical tools, it is not possible to assess, with certainty, whether the Project's contribution will be cumulatively considerable, within the meaning of CEQA Guidelines Sections 15065(a)(3) and 15130. CEQA, however, does note that the more severe environmental problems the lower the thresholds for treating a Project's contribution to cumulative impacts as significant. Given the position of the legislature in AB32 which states that global warming poses serious detrimental effects, and the requirements of CEQA for the lead agency to determine that a Project not have a cumulatively considerable contribution, the effect of the Project's CO_2 contribution may be considered cumulatively considerable. This determination is based on the lack of clear scientific evidence or other criteria for determining the significance of the Project's contribution of GHG to the air quality in the SJVAB."[30]

"CEQA requires that all feasible and reasonable mitigation be applied to the Project to reduce the impacts from construction and operations on air quality. The San Joaquin Valley Air Pollution Control District's "Non-Residential On-Site Mitigation Checklist" was utilized in preparing the mitigation measures and evaluating the Projects features. These measures include using controls that limit the exhaust from construction equipment and using alternatives to diesel when possible. Additional reductions will be achieved through the regulatory process of the air district and CARB as required changes to diesel engines are implemented which will affect the product delivery trucks and limits on idling.

AB32 requires that a list of emission reduction strategies be published to achieve the goals set forth in the law. Until CARB publishes those reduction strategies, emission reduction strategies to meet the Governor's Executive Order S-3-05 should be considered.

The strategies that CARB is implementing that may help in reducing the Project's GHG emissions are summarized in the table below."[31]

Table 3.7-5
Select CARB Greenhouse Gas Emission Reduction Strategies

Strategy	Description of Strategy
Statewide Measures	
Vehicle Climate Change Standards	AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by CARB in Sept. 2004.
Diesel Anti-Idling	In July 2004, CARB adopted a measure to limit diesel-fueled commercial motor vehicle idling.

[30] Air Quality Impact Analysis, pages 38 to 39
[31] Ibid., pages 38 to 39

Other Light-Duty Vehicle Technology	New standards would be adopted to phase in beginning in the 2017 model year.
Alternative Fuels: Biodiesel Blends	CARB would develop regulations to require the use of 1% to 4% Biodiesel displacement of California diesel fuel.
Alternative Fuels: Ethanol	Increased use of ethanol fuel.
Heavy-Duty Vehicle Emission Reduction Measures	Increased efficiency in the design of heavy-duty vehicles and an educational program for the heavy-duty vehicle sector.

Source: Air Quality Impact Analysis

"While it will not be practical for the Project to implement all of these suggested strategies, legislatively driven changes in the future will further reduce the Project's GHG footprint."[32]

CEQA Guidelines Section 15130 notes that sometimes 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. Global climate change is this type of issue. The causes and effects may not be just regional or statewide, they may be worldwide. Given the uncertainties in identifying, let alone quantifying the impact of any single Project on global warming and climate change, and the efforts made to reduce emissions of greenhouse gases from the Project through design, in accordance with CEQA Section 15130, any further feasible mitigation will be accomplished through CARB regulations adopted pursuant to AB32. Since the Project will employ all possible long-term GHG emissions reduction strategies possible the cumulative impacts of the Project to global climate change are considered less than significant."[33]

"Since the Air District uses a 25,000 metric ton CO_2e threshold for permitting purposes this analysis utilized that threshold for a significance impact limit on global climate change or on the environment in California. As demonstrated in [Table 3.7-2] this project does not exceed the Air District threshold of 25,000 metric tons of CO_2e, therefore, the project's cumulative impacts to global climate change are considered less than significant."[34]

Anaerobic Digester

As noted in the earlier discussion regarding the Project Impact Analysis, the proposed Project will have an overall benefit in terms of reducing GHGs. As such, there will be an overall cumulative benefit toward reduction of GHGs.

Composting

As noted in the Project Impact Analysis, the proposed Project will result in an overall benefit in terms of reducing GHGs. As such, there will be an overall cumulative benefit toward reduction of GHGs.

[32] Air Quality Impact Analysis, page 41
[33] Ibid., pages 38 to 39
[34] Ibid., pages 38 to 39

Mitigation Measures:

None Required.

Conclusion: ***Less than Significant Impact (Overall Benefit)***

The proposed Project will have an overall benefit related toward reduction of GHGs. No mitigation is required.

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***

This Project does not conflict with the Tulare Climate Action Plan, the Tulare County General Plan, or any Air District Regulations, for the purpose of reducing greenhouse gas emissions.

The truck trips and equipment operations GHG generation does not exceed the Air District standards. The proposed Project's objectives and Project components are consistent with the goals of AB 32 and greenhouse gas reduction and the proposed Project will result in an overall reduction in GHGs. Thus, the proposed Project is consistent with the aforementioned plans, policies, and regulations. No Project specific impacts related to this checklist item will occur.

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

The geographic area of this cumulative analysis is the San Joaquin Air Basin. This cumulative analysis is based on the information provided in the Air Quality Impact Assessment

As the proposed Project is consistent with aforementioned plans, policies, and regulations, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As the proposed Project is consistent with aforementioned plans, policies, and regulations, no project specific or cumulative impacts related to this checklist item will occur.

DEFINITIONS/ACRONYMS

Definitions

Achieved-in-Practice
"Any equipment, technology, practice or operation available in the United States that has been installed and operated or used at stationary source site for a reasonable period of time sufficient to demonstrate that the equipment, technology, practice or operation is reliable when operated in a manner that is typical for the process. In determining whether equipment, technology, practice or operation is Achieved-in-Practice, the District will consider the extent to which grants, incentives or other financial subsidies influence the economic feasibility of its use."[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."

Category
"A District approved subdivision within a "class" as identified by unique operational or technical aspects."[39]

Class
"The broadest District approved division of stationary GHG sources based on fundamental type of equipment or industrial classification of the source operation."[40]

[35] District Policy, Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency, page 6
[36] Ibid, page 6
[37] Ibid, page 7
[38] Ibid, page 7
[39] Ibid, page 7
[40] Ibid, page 7

Global Warming
"Global warming is an increase in the temperature of the Earth's troposphere. Global warming has occurred in the past as a result of natural influences, but the term is most often used to refer to the warming predicted by computer models to occur as a result of increased emissions of greenhouse gases."[41]

Greenhouse Gas
"Greenhouse gas (GHG) emissions are the release of any gas that absorbs infrared radiation in the atmosphere. Generally when referenced in terms of global climate they are considered to be harmful. Greenhouse gases include, but are not limited to, water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrochlorofluorocarbons (HCFCs), ozone (O_3), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)."[42]

Operational Boundaries
"Operational boundaries are defined as "[t]he boundaries that determine the direct and indirect emissions associated with operations owned or controlled by the reporting company. This assessment allows a company to establish which operations and sources cause direct and indirect emissions, and to decide which indirect emissions to include that are a consequence of its operations" (GHG Protocol, 2008)."[43]

Acronyms

(AB)	Assembly Bill
(ARB)	Air Resources Board (Short for CARB)
(BAU)	Business As Usual
(BPS)	Best Performance Standards
(CAA)	Clean Air Act
(Cal EPA)	California Environmental Protection Agency
(CARB)	California Air Resources Board
(CERF)	Compost Reduction Emission Factor
(CH_4)	Methane
(CO_2)	Carbon Dioxide
(GHG)	Greenhouse Gases
(HFCs)	Hydrofluorocarbons
(MRF/TS)	Material Recovery Facility/Transfer Station
(MSW)	Municipal Solid Waste
(N_2O)	Nitrous Oxide
(OPR)	Governor's Office of Planning and Research
(PFCs)	Perfluorocarbons
(SF_6)	Sulfur Hexafluoride
(AIR DISTRICT)	San Joaquin Valley Air Pollution Control District
(WARM)	Waste Reduction Model

[41] General Plan Background Report, page 6-3
[42] Ibid., page 6-3
[43] Ibid., page 6-29

REFERENCES

Tulare County 2030 General Plan, August 2012

Tulare County 2030 General Plan Background Report, February 2010

2012 CEQA Guidelines

Air Quality Impact Analysis, Insight, September 2012

District Policy, Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency, San Joaquin Valley Air Pollution Control District, December 17, 2009

EPA Waste Reduction Model (WARM), http://www.epa.gov/climatechange/waste/calculators/Warm_home.html

Cal/EPA Air Resources Board, http://www.arb.ca.gov/desig/desig.htm

San Joaquin Valley Air Pollution Control District Website, http://www.valleyair.org/General_info/aboutdist.htm#Mission

Tulare County 2030 General Plan, Recirculated Draft Environmental Impact Report (RDEIR), February 2010

Method for estimating greenhouse gas emission reductions from compost from commercial organic waste, California Air Resources Board, November 14, 2011

Hazards and Hazardous Materials
Chapter 3.8

SUMMARY OF FINDINGS

Impacts of the proposed Project are determined to be less than significant with mitigation. A detailed review of potential impacts is provided in the analysis as follows.

INTRODUCTION

California Environmental Quality Act (CEQA) Requirements

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

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

[1] 2012 CEQA Guidelines, Section 15126.2 (a)

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

- Create a significant hazard
- Located within one-quarter mile of an existing or proposed school
- Located on a list of hazardous materials sites
- Located within an airport land use plan
- Located within the vicinity of a private airstrip
- Interfere adopted emergency response plan or emergency evacuation plan
- Wildland Fire Risk

ENVIRONMENTAL SETTING

"A hazardous material is defined by the California Code of Regulations (CCR) as a substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating, illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of (CCR, Title 22, Division 4.5, Chapter 10, Article 2, Section 66260.10)."[2]

"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]

Hazardous Waste Shipments Originating Within Tulare County

"A determination of the routes used to transport hazardous waste within Tulare County was performed by analysis of Hazardous Waste Tracking System (HWTS) data on hazardous shipments. Calendar year 2002 manifest data indicates that a total of 1,606 tons of hazardous waste was transported from all categories of generators in Tulare County."[4] The quantities of hazardous waste transported from facilities located within each zip code in Tulare County are shown in the table below.

[2] General Plan Background Report, page 8-19
[3] Ibid., page 8-19 to 8-20
[4] Ibid., page 8-31

Table 3.8-1
Transport of Hazardous Waste

Zip Code	Total Tons	Zip Code	Total Tons	Zip Code	Total Tons	Zip Code	Total Tons
93219	0.579	93221	19.100	93223	14.73	93227	6.792
93244	4.270	93247	36.370	93256	14.39	93257	155.000
93262	0.459	93271	4.463	93272	17.78	93274	146.700
93275	14.870	93277	407.80	93279	52.01	93286	7.152
93291	321.700	93292	25.600	93615	2.606	93618	139.100
93631	321.700	93647	65.630	93654	4.255	93673	4.915

Source: General Plan Background Report

Environmental Health Department Futures Assessment

"The Environmental Health Department [EHD], of which the CUPA is a part, anticipates a slight increase in the reported volume of hazardous waste generated within Tulare County in year 2003/04. However, EHD does not expect an increase in the actual volume of hazardous waste generated over the same period."[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 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."[6] 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."[7]

Superfund

"Comprehensive Environmental Response, Compensation and Liability Act CERCLA, commonly referred to as Superfund, was enacted on December 11, 1980. The purpose of CERCLA was to provide authorities with the ability to respond to uncontrolled releases of

[5] General Plan Background Report, page 8-32
[6] US Department of Energy, The Hazardous Materials Transportation Act of 1975 (HMTA) http://hss.doe.gov/sesa/environment/policy/hmta.html
[7] US Department of Energy, The Office of Health, Safety and Security, http://www.hss.doe.gov/sesa/environment/policy/hmta.html

hazardous substances from inactive hazardous waste sites that endanger public health and the environment. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at such sites, and established a trust fund to provide for cleanup when no responsible party could be identified. Additionally, CERCLA provided for the revision and republishing of the National Contingency Plan (NCP) that provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also provides for the National Priorities List, a list of national priorities among releases or threatened releases throughout the United States for the purpose of taking remedial action."[8]

"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."[9]

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."[10]

Cal/EPA Department of Toxic Substance Control (DTSC)

"Cal/EPA has regulatory responsibility under Title 22 of the California Code of Regulations (CCR) for administration of the state and federal Superfund programs for the management and cleanup of hazardous materials. The DTSC is responsible for regulating hazardous waste facilities and overseeing the cleanup of hazardous waste sites in California. The Hazardous Waste Management Program (HWMP) regulates hazardous waste through its permitting, enforcement and Unified Program activities. HWMP maintains the EPA authorization to implement the RCRA program in California, and develops regulations, policies, guidance and technical assistance/ training to assure the safe storage, treatment, transportation and disposal of hazardous wastes. The State Regulatory Programs Division of DTSC oversees the technical

[8] General Plan Background Report, page 8-20
[9] Ibid., page 8-21
[10] Ibid., page 8-22

implementation of the state's Unified Program, which is a consolidation of six environmental programs at the local level, and conducts triennial reviews of Unified Program agencies to ensure that their programs are consistent statewide and conform to standards."[11]

California Occupational Safety and Health Administration (Cal/OSHA)

"Cal/OSHA and the Federal OSHA are the agencies responsible for assuring worker safety in the handling and use of chemicals in the workplace. Pursuant to the Occupational Safety and Health Act of 1970, Federal OSHA has adopted numerous regulations pertaining to worker safety, contained in the Code of Federal Regulations Title 29 (29 CFR). These regulations set standards for safe workplaces and work practices, including standards relating to hazardous material handling. Cal/OSHA assumes primary responsibility for developing and enforcing state workplace safety regulations. Because California has a federally General Plan Background Report December 2007 approved OSHA program, it is required to adopt regulations that are at least as stringent as those identified in 29 CFR. Cal/OSHA standards are generally more stringent than federal regulations."[12]

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."[13]

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)."[14] The Cortese List identifies the following:

- Hazardous Waster and Substance Sites
- Cease and desist order Sites
- Waste Constituents above Hazardous Waste Levels outside the Waste Management Unit Sites
- Leaking Underground Tank (LUST) Cleanup Sites
- Other Cleanup Sites
- Land Disposal Sites
- Military Sites
- WDR Sites

[11] General Plan Background Report, pages 8-22 and 8-23
[12] Ibid., pages 8-23 and 8-24
[13] Ibid., page 8-24
[14] Cal/EPA Cortese List background, http://www.calepa.ca.gov/sitecleanup/corteselist/Background.htm

- Permitted Underground Storage Tank (UST) Facilities Sites
- Monitoring Wells Sites
- DTSC Cleanup Sites
- DTSC Hazardous Waste Permit Sites

Local Policy & Regulations

Tulare County Environmental Health Division

"The Tulare County Department of Public Health protects health, prevents disease, and promotes the health and well-being for all persons in Tulare County. Public Health focuses on the population as a whole, rather than individuals. We conduct our activities through a network of public health professionals throughout the community. Public health nurses make home visits to families with communicable diseases; epidemiologists investigate and analyze data on diseases; our emergency preparedness unit responds to health related emergencies and assists communities in recovery; environmental health specialists ensure safe food, water, and housing; health operations assures the quality and accessibility of health services; and all work with community coalitions to advocate for public policies to protect and improve health."[15]

Tulare County General Plan Policies

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

HS-4.1 Hazardous Materials
The County shall strive to ensure hazardous materials are used, stored, transported, and disposed of in a safe manner, in compliance with local, State, and Federal safety standards, including the Hazardous Waste Management Plan, Emergency Operations Plan, and Area Plan.

HS-4.3 Incompatible Land Uses
The County shall prevent incompatible land uses near properties that produce or store hazardous waste.

HS-4.4 Contamination Prevention
The County shall review new development proposals to protect soils, air quality, surface water, and groundwater from hazardous materials contamination.

[15] Tulare County Environmental Health Webpage, http://www.tularehhsa.org/index.cfm/public-health/about-phd/

IMPACT EVALUATION

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Project Impact Analysis: ***Less than Significant Impact with Mitigation***

The proposed Project will add composting manure, which is from the dairy adjacent to the facility and from off site sources, and the green waste from off site sources. None of this waste is considered hazardous. In addition, the proposed Project includes the installation of an anaerobic bio-digester to create synthetic natural gas. This fuel will be dispensed on site as the proposed CNG station. No gas will be transported off-site. Tulare County Environmental Health has reviewed the proposed Project and is prepared to approve the project concurrent with the EIR and Special Use Permit. Potential impacts related to this checklist item will be considered 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 proposed Project includes an anaerobic biodigester for methane production. The digestate material will be dispensed on-site and will not have any off-site impacts. As such, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

3.8-1 **Business Plan from Environmental Health: Hazardous Materials Business Plan from Environmental Health – Under the California Health Chapters 4 & 4.5, the facility is required to submit a business plan to Certified Unified Program Agency (CUPA). Environmental Health as the CUPA for Tulare County, requires a business plan for threshold quantities of:**

- **55 gallon of a liquid**
- **500 pounds of solids**
- **200 cubic yards of compressed gas**

See mitigation measure 3.17-6.

Conclusion: ***Less than Significant Impact***

Potential Project specific impacts related to this checklist item will be considered less than significant. No cumulative impacts related to this checklist item will 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 then Significant Impact with Mitigation***

The proposed Project includes the installation of an anaerobic digester. This process creates synthetic natural gas which will be used as fuel by trucks leaving the site. The natural gas production is subject to the Tulare County Department of Environmental Health. Their recommendations are incorporated as mitigation measures noted below.

As noted in the Hazardous Materials Business Plan, the Project site does not include any underground tanks. Business operations, however, does include storage of 55 gallons of liquid materials, up to 1000 pounds of solids, and 200 cubic feet of compressed gases. As such, the Environmental Health Division of Tulare County has prepared recommendations for the proposed Project. These recommendations are outlined as mitigation measures listed below.

As noted by Klienfelder, in the Phase 1 Report, (Appendix D), Stained soils extending in an approximate radius of six feet were noted around the well. No staining was noted beneath the pole-mounted transformers.

With mitigation, Project specific impacts related to this checklist item will be reduced to a level considered 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.

With the implementation of the mitigation measures noted earlier, potential Project specific impacts related to this checklist item will be considered less than significant. Therefore, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

3.8-2 **If more than 10,000 pounds of methane is produced in the process, the applicant is required to submit an application for a California Accidental Release Prevention (CalARP)/Risk Management Plan. The applicant shall immediately contact the Certified Unified Program Agency's (CUPA) inspector and notify the CalARP and submit an application.**

3.8-3 **If the facility has/or proposes an above ground storage capacity over 1,320 gallons of a petroleum based product, the site shall be required to prepare a Spill Prevention Control and Countermeasure (SPCC) plan in accordance with the U.S. Code of Federal Regulations, Title 40, Part 112 (40CFR112) prior to the final inspection of the building permit. The plan shall be submitted to the Tulare County Environmental Health Services Division. The applicant shall contact the TCEHSD's CUPA inspector.**

3.8-4 **The applicant shall conduct additional soils testing prior to construction of the digester and/or the expansion of the composing activities, as recommended by the Klienfelder, Phase 1 report.**

Conclusion: ***Less then Significant Impact with Mitigation***

With implementation of the above mentioned mitigation measures, potential Project specific impacts related to this checklist item will be reduced level considered less than significant. Less than significant cumulative impacts related to this checklist item will 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 site is not located within 0.25 mile of an existing or proposed school. As such, no project specific impacts related to this checklist item will occur.

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

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

There is one hazardous material site located at Sundale Vineyard School (site 54010018) which is less than one mile to the southeast of the proposed site. However, since the Project site is not located within 0.25 mile of an existing or proposed school. As such, no Project cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts related to this checklist item will occur.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

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

As of January 20, 2012, the Project site is not contained on a Cortese List site. As such, no Project specific impacts related to this checklist item will occur. The proposed Project will not include elements that would require listing on the Cortese List. According to the Geotracker database (RB Case # 5D545081001), the proposed Project site is considered a landfill; its clean up status is open. The case has been open since January 1, 1965 and no clean up actions exists. There are no potential contaminants of concern.[16] Also, the nearest hazardous site is the Sundale Vineyard School (site 54010018) which is less than one mile to the southeast of the site. This site is approximately 10-acres in area and is surrounded by a school and vineyards. The site has been historically utilized for agricultural purposes indicating potential pesticide application. Under the Preliminary Endangerment Assessment (PEA) investigation for agricultural impacts, the site received a "No Further Action Determination" in October 2004.[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.

The Project site is not located on the Cortese List of hazardous materials. The Proposed Project includes an expansion of an existing Material Recovery Facility and Transfer Station, along with a Zone Change/General Plan Amendment and will not cause other properties to be included in the Cortese List. As such, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

[16] Geotracker, http://geotracker.waterboards.ca.gov/map/?global_id=L10008098437, 7/18/12
[17] Envirosor, http://www.envirostor.dtsc.ca.gov/, 7/18/12

Conclusion: ***No Impact***

As noted earlier, no Project specific or cumulative impacts related to this checklist item will occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

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

The nearest airport to the Project site is Alta Airport. This private airport, however, is permanently closed. The Tulare County Airport Land Use Commission noted on September 8, 2010 that the previous operation will have not impacts to aviation traffic. In addition, the Airport Land Use Commission noted that the Proposed Project will not conflict with Tulare County Airport Land Use Plan policy. No Project specific impacts will occur as a result of the Proposed Project.

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

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

As the nearest airport is permanently closed, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts related to this checklist item will 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 nearest airport to the Project site is Alta Airport. This private airport, however, is permanently closed. The nearest operational airport, Mefford Field (in the City of Tulare), is

approximately six (6) miles southwest of the proposed Project site, while the nearest regional airport, Visalia Municipal Airport, is approximately nine (9) miles to the northwest. The proposed Project will not result in a safety hazard for people working in the area. The Tulare County Airport Land Use Commission noted on September 8, 2010 that the previous operation will have not impacts aviation traffic. In addition, the Airport Land Use Commission noted that the Proposed Project will not conflict with Tulare County Airport Land Use Plan policy. No Project specific impacts will occur as a result of the Proposed Project.

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

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

As the nearest airport is permanently closed, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts related to this checklist item will occur.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

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

"Tulare County has in place an emergency plan to cope with natural disasters that are statewide or happen locally. The County Fire Department and local stationed California Department of Forestry [and Fire Protection] (CDF [now known as CalFire]) responds to fires locally as well as statewide. The United States Forest Service (USFS) is in charge of fires that [occur] in the national parks and Tulare County assists with the fire management process as needed."[18]

"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

[18] TCAG Regional Transportation Plan, page 1-11

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 proposed Project does not involve a change to any emergency response plan. There are three existing driveway entrances into the Project site. These driveways are at least 25 feet wide, which is sufficient for fire trucks and other emergency vehicles to enter and exit the site. The proposed Project will not change driveway dimensions and will not have an impact on emergency response or evacuation. As such, no Project specific impacts related to this checklist item will occur.

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

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

The proposed Project does not include alterations to an emergency plan or include reductions of site accessibility by emergency vehicles. No cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None required.

Conclusion: ***No Impact***

As noted earlier, no Project specific or cumulative impacts related to this checklist item will occur.

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***

The Project site is already developed. In addition, there are industrial and agricultural uses surrounding the site. With this environmental context, the Project site does not fit the definition of nor will it be considered to be located within a wildlands area. Therefore, the Proposed Project will not expose people or structure to wildland fires. No Project specific impacts related to this checklist item will occur.

[19] General Plan Background Report, page 8-35 to 8-36

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 site in not located in wildland and will not impact the growth of wildlands. No cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts related to this checklist item will occur.

DEFINITIONS/ACRONYMS

Definitions

Hazardous Waste Generators
"Hazardous waste generators can be classified in three groups depending on the quantity of waste generated in any month. A Conditionally Exempt Small Quantity Generator (CESQG) is defined in regulation as a generator of less than 100 kilograms of hazardous waste in a calendar month. A Small Quantity Generator (SQG) is a generator of greater than 100 kg and less than 1000 kg of hazardous waste in a calendar month. A Large Quantity Generator (LQG) generates greater than 1000 kg of hazardous waste in a calendar month. Determination of whether a facility is a CESQG, SQG, or LQG is the responsibility of the generator. The designation may change during the year, based on the quantity of hazardous waste produced during a particular month. Specific hazardous waste materials may also be exempt from the monthly total quantity. Therefore, the Certified Unified Program Agencies (CUPA) cannot authoritatively designate the number of generators within each of the above categories."[20]

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."[21]

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

[20] General Plan Background Report, page 8-28 to 8-29
[21] Ibid.

LQG's during calendar year 2002 were 559.7 and 121.6 tons, respectively."[22]

Storage Facilities
"According to available information from the agencies (Department of Toxic Substances Control [DTSC] and RWQCB) that oversee treatment, storage and disposal facilities (TSDFs), there are no facilities authorized for the storage of hazardous waste in Tulare County."[23]

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."[24]

Planned Treatment, Storage and Disposal Facilities
"According to information available to the CUPA, there are no new treatment, storage and disposal facilities proposed in Tulare County."[25]

Acronyms

(CDF/CalFire)	California Department of Forestry
CERCLA)	Comprehensive Environmental Response, Compensation and Liability Act
(DOE)	Department of Energy
(DTSC)	Cal/EPA Department of Toxic Substance Control
(HMTA)	Hazardous Materials Transportation Act of 1975
(HWMP	Hazardous Waste Management Program
(HWTS)	Hazardous Waste Tracking System
(LUST)	Leaking Underground Tank
(NCP)	National Contingency Plan
(SARA)	Superfund Amendments and Reauthorization Act
(USFS)	United States Forest Service

[22] Ibid.
[23] Ibid.
[24] Ibid.
[25] Ibid.

REFERENCES

2011 Regional Transportation Plan, Tulare County Association of Governments (TCAG)

Tulare County 2030 General Plan, August 2012

Tulare County 2030 General Plan Background Report, February 2010

US Department of Energy, The Office of Health, Safety and Security, http://www.hss.doe.gov/sesa/environment/policy/hmta.html

Cal/EPA Cortese List, http://www.calepa.ca.gov/sitecleanup/corteselist/Background.htm

Tulare County Environmental Health Webpage, http://www.tularehhsa.org/index.cfm/public-health/about-phd/

2012 CEQA Guidelines

Envirosor, http://www.envirostor.dtsc.ca.gov/, (7/18/12)

Geotracker, http://geotracker.waterboards.ca.gov/map/?global_id=L10008098437, (7/18/12)

Hydrology and Water Quality
Chapter 3.9

SUMMARY OF FINDINGS

The proposed Project will result in less than significant impacts related to Hydrology and Water Quality with mitigation. A detailed review of potential impacts is provided in the analysis below. A list of all mitigation measures is provided in Chapter 8.

INTRODUCTION

California Environmental Quality Act (CEQA) Requirements

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

As noted in 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 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

[1] 2012 CEQA Guidelines, Section 15126.2 (a)

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.

- Project not in compliance with the regulations outlined by the State Water Resources Control Board.
- Project 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 watercourse and increase 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 Services District
- Project includes or requires an expansion of a Water Service District
- Project in flood zone
- Project will create a flood safety hazard
- Project located immediately downstream of a dam

ENVIRONMENTAL SETTING

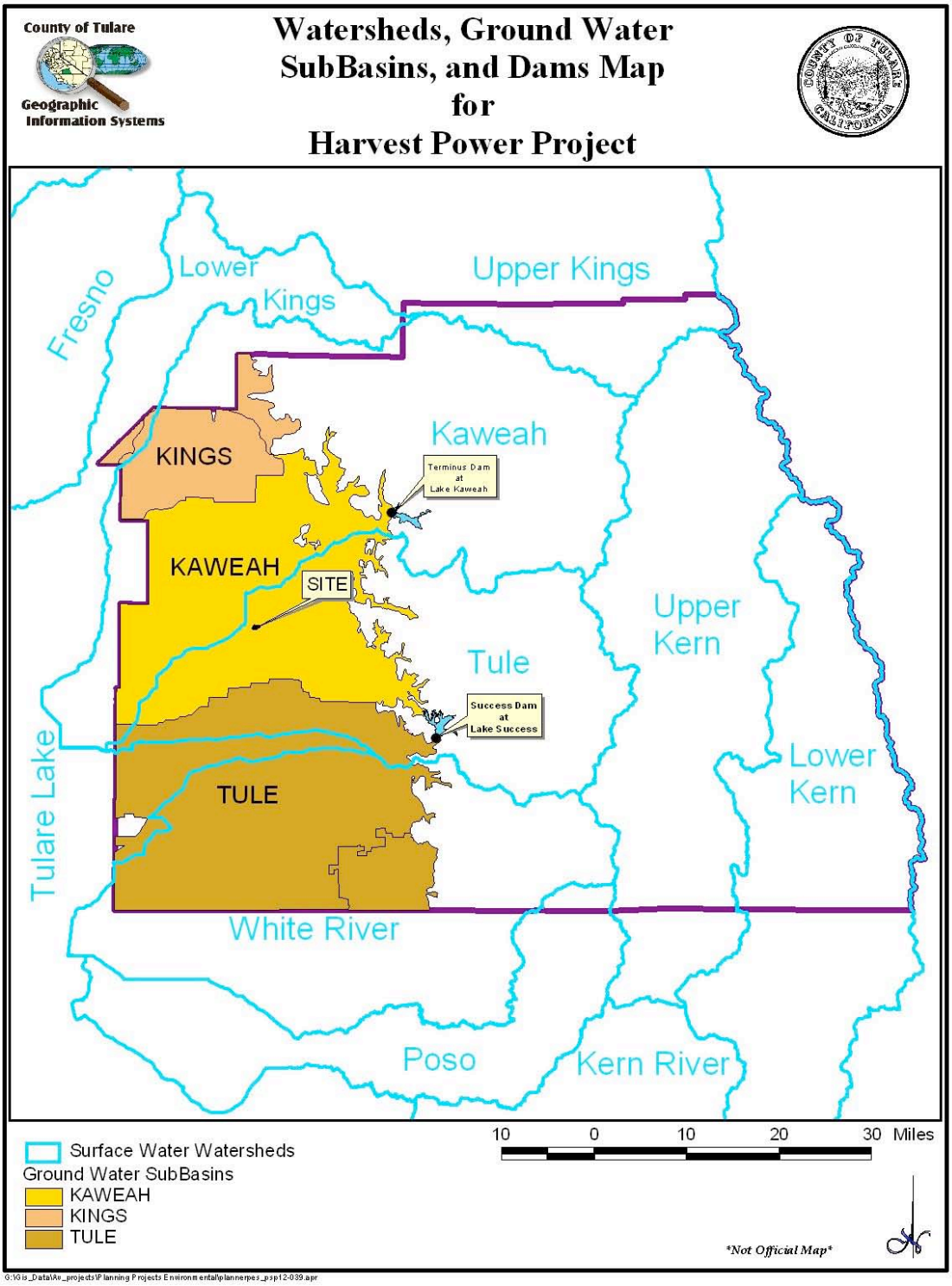
"The Tulare Lake Hydrologic Region covers approximately 10.9 million acres (17,050 square miles) and includes all of Kings and Tulare counties and most of Fresno and Kern counties... The southern portion of the San Joaquin Valley is subdivided into two separate basins, the San Joaquin and the Tulare, 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. See **Figure 3.9-1** below.

[2] California Water Plan Update 2009, Tulare Lake, page TL-5
[3] Water Quality Control Plan for the Tulare Lake Basin, page I-1

Figure 3.9-1
Watershed Map



Watershed (Surface Water)

"The Tulare Lake region is divided into several main hydrologic subareas: the alluvial fans from the Sierra foothills and the basin subarea (in the vicinity of the Kings, Kaweah, and Tule rivers and their distributaries); the Tulare Lake bed; and the southwestern uplands. The alluvial fan/basin subarea is characterized by southwest to south flowing rivers, creeks, and irrigation canal systems that convey surface water originating from the Sierra Nevada. The dominant hydrologic features in the alluvial fan/basin subarea are the Kings, Kaweah, Tule, and Kern rivers and their major distributaries."[4]

"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 200/100 ml, nor shall more than ten percent of the total number of samples taken during any 30-day period exceed 400/100 ml.
- **Biostimulatory Substances:** Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
- **Chemical Constituents:** Waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses.
- **Color:** Waters shall be free of discoloration that causes nuisance or adversely affects beneficial uses.
- **Dissolved Oxygen:** Waste discharges shall not cause the monthly median dissolved oxygen concentrations (DO) in the main water mass (at centroid of flow) of streams and above the thermocline in lakes to fall below 85 percent of saturation concentration, and the 95 percentile concentration to fall below 75 percent of saturation concentration.
- **Floating Material:** Waters shall not contain floating material, including but not limited to solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.

[4] California Water Plan Update 2009, Tulare Lake, page TL-8
[5] Water Quality Control Plan for the Tulare Lake Basin, page I-1
[6] Ibid., page III-3
[7] Ibid., pages 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]

"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.

[8] General Plan Background Report, page 10-7

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 has 12 distinct groundwater basins and seven subbasins of the San Joaquin Valley Groundwater Basin, which crosses north into the San Joaquin River Hydrologic Region.... These basins underlie approximately 5.33 million acres (8,330 square miles) or 49 percent of the entire hydrologic region. Groundwater has historically been important to both urban and agricultural uses, accounting for 41 percent of the region's total annual supply and 35 percent of all groundwater use in the state. Groundwater use in the region represents about 10 percent of the state's overall water supply for agricultural and urban uses."[11]

"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 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]

<u>Groundwater Quality</u>

Specific objectives outlined in the Water Quality Control Plan are listed below: [13]

- **Bacteria:** In ground waters designated MUN, the concentration of total coliform organisms over any 7-day period shall be less than 2.2/100 ml.
- **Chemical Constituents:** Ground waters shall not contain chemical constituents in

[9] California Water Plan Update 2009, Tulare Lake, page TL-5
[10] Water Quality Control Plan for the Tulare Lake Basin, page I-1
[11] California Water Plan Update 2009, Tulare Lake, page TL-9 to TL-10
[12] Ibid., page TL-10
[13] Water Quality Control Plan for the Tulare Lake Basin, page III-7 to III-8

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.
- **Salinity:** All ground waters shall be maintained as close to natural concentrations of dissolved matter as is reasonable considering careful use and management of water resources.
- **Tastes and Odors:** Ground waters shall not contain taste- or odorproducing substances in concentrations that cause nuisance or adversely affect beneficial uses.
- **Toxicity:** Ground waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial use(s).

According to the California Water Plan, the key ground water quality issues include the following.[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 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

[14] California Water Plan Update 2009, Tulare Lake, page TL-22 to TL-24

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 streamflow 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.

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."[15]

"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 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."[16]

"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."[17]

[15] Water Quality Control Plan for the Tulare Lake Basin, page I-1
[16] California Water Plan Update 2009, Tulare Lake, page TL-15 to TL-17
[17] General Plan Background Report, page 10-11

"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."[18]

"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."[19]

According to the 2009 California Water Plan, the water storage has varied between the 1998-2005. It seems that most of the variation has occurred from changing precipitation levels. See **Table 3.9-1** and **Figure 3.9-2** below.

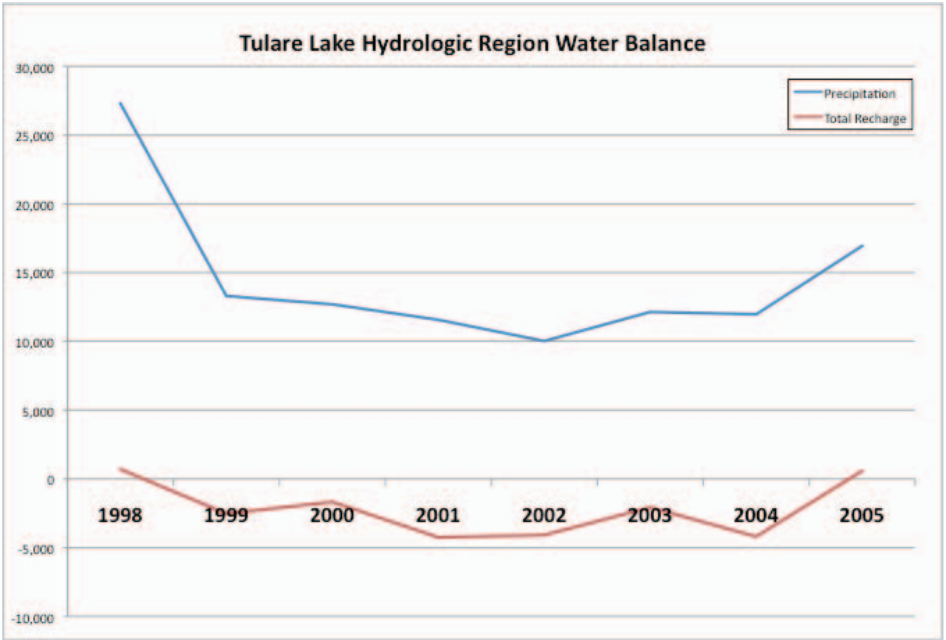
Table 3.9-1
Tulare Lake Hydrologic water balance for 1998-2005 (thousand acre-feet)

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/Nevado/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**

Source: California Water Plan Update 2009, Tulare Lake, Department of Water Resources (This table does not include dairy usage)

[18] California Water Plan Update 2009, Tulare Lake, page TL-17
[19] Ibid., page TL-19

Figure 3.9-2
Water Balance



Source: California Water Plan Update 2009, Tulare Lake, Department of Water Resources

"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."[20] 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.

"There are 19 entities in Tulare County with active programs of groundwater management. These management programs include nearly all types of direct recharge of surface water. Groundwater recovery is accomplished primarily through privately owned wells. Among the larger programs of groundwater management are those administered by the Kaweah Delta Water Conservation District, the Kings River Water Conservation District, the Tulare Irrigation District, the Lower Tule Water Users Association, and the Alta Irrigation District, utilizing water from the Friant-Kern Canal and local streams. The Kings River Water Conservation District covers the western county."[21] See table of irrigation districts located in Tulare County below:

[20] General Plan Background Report, page 10-11
[21] Ibid., page 10-12

Table 3.9-2
Irrigation Districts in Tulare County

Entity	Surface Water	Imported Water Source	Groundwater Extraction
Alpaugh Irrigation District	NA	Friant-Kern Canal (1,000af average)	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 average)	8,000 af
Exeter Irrigation District	NA	Friant-Kern Canal (1,000 af average)	14,000 af
Hills Valley Irrigation District	NA	Cross Valley Canal (2,000 af average)	1,000 af
Ivanhoe Irrigation District	Kaweah River	Friant-Kern Canal (11,650 af average)	15,000 af
Kaweah Delta Water Cons. District	Kaweah River	Friant-Kern Canal (24,000 af average)	130,000 af
Kern-Tulare Water District	Kern River	Cross Valley Canal (41,000 af average)	33,000 af
Lindmore Irrigation District	NA	Friant-Kern Canal (44,000 af average)	28,000 af
Lower Tulare River Irrigation Dist.	Tule River	Friant-Kern Canal (180,200 af average) Cross Valley Canal (31,000 af average)	NA
Lindsay-Strathmore Irrigation District	NA	Friant-Kern Canal (24,150 af average)	NA
Orange Cove Irrigation District	NA	Friant-Kern Canal (39,200 af average)	30,000 af
Pioneer Water Irrigation District	Tule River		3,000 af
Pixley Irrigation District	NA	Friant-Kern Canal (1,700 af average) Cross Valley Canal (31,000 af average)	130,000 af
Porterville Irrigation District	Tule River	Friant-Kern Canal (31,000 af average)	15,000 af
Rag Gulch Water District	Kern River	Friant-Kern Canal (3,700 af average) Cross Valley Canal (13,300 af average)	
Saucelito Irrigation District	Tule River	Friant-Kern Canal (37,600 af average)	15,000 af
Stone Corral Irrigation District	NA	Friant-Kern Canal (10,000 af average)	5,000 af
Teapot Dome Irrigation District	NA	Friant-Kern Canal (5,600 af average)	
Terra Bella Irrigation District	NA	Friant-Kern Canal (29,000 af average)	2,000 af
Tulare Irrigation District	Kaweah River	Friant-Kern Canal (100,500 af average)	65,000 af

Source: Bookman-Edmonston Engineering Inc. Water Resources Management in the Southern San Joaquin Valley, Table A-1.

"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 Pubic 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)."[22]

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 proposed 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."[23]

"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."[24]

"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."[25]

"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

[22] General Plan Background Report, page 7-33
[23] Ibid., page 8-13
[24] California Water Plan Update 2009, Tulare Lake, page TL-28 to TL-29
[25] Ibid., page 8-14

ordinary floodplain. Confined floodplains can result in significantly higher water elevations and higher flow rates during high runoff and flood events."[26]

"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 electric-generating facilities and transmission lines associated with hydro-electric dams could also affect life support systems in communities outside the immediate hazard area."[27]

REGULATORY SETTING

Federal Agencies & Regulations

Clean Water Act/NPDES

"The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972… Under the CWA, EPA has implemented pollution control programs such as setting wastewater standards for industry. We have also set water quality standards for all contaminants in surface waters… The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters."[28]

Safe Drinking Water Act

"The Safe Drinking Water Act (SDWA) is the main federal law that ensures the quality of Americans' drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards… SDWA was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. (SDWA does not regulate private wells which serve fewer than 25 individuals.)"[29]

[26] General Plan Background Report, page 8-14
[27] Ibid., page 8-17
[28] EPA summary of the Clean Water Act – http://www.epa.gov/lawsregs/laws/cwa.html
[29] EPA summary of the Safe Drinking Water Act – http://water.epa.gov/lawsregs/rulesregs/sdwa/index.cfm

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;
- 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."[30]

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."[31]

National Flood Insurance Program

"In 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."[32]

[30] EPA Website, http://www.epa.gov/aboutepa/whatwedo.html
[31] Army Corps of Engineers http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx
[32] Flood Insurance Program Summary: http://www.floodsmart.gov/floodsmart/pages/about/nfip_overview.jsp

State Agencies & Regulations

The Porter-Cologne Water Quality Control Act

"Under the Porter-Cologne Water Quality Control Act (Porter-Cologne), the State Water Resources Control Board (State Board) has the ultimate authority over State water rights and water quality policy. However, Porter-Cologne also establishes nine Regional Water Quality Control Boards (Regional Boards) to oversee water quality on a day-to-day basis at the local/regional level."[33]

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."[34]

The State Water Board is in the process generating a Statewide Order for Composing Facilities. Current practice is to issue individual waste discharge requirements (WDRs) for larger composting facilities. A conditional waiver for "green waste-only" composting facilities was in effect from 1994 until 2003, when a change in law required all waivers to be either renewed or replaced with WDRs. Currently, the Water Boards are developing statewide general WDRs that will address water quality protection at composting facilities that currently exists or may be constructed. [35]

Under tentative order **Water Quality Order No. Dwq-2012-Xxxx**, composting has general waste water requirement, including monitoring and annual reporting to the RWQCB. This order is not final and will require compost sites to be designed to protect groundwater. The current composting facility is designed to protect ground, and surface, water by working with the Regional Water Quality Control board on compost pad compaction, retention pond design, maintenance of a site slope toward the pond, maintenance of a berm around the entire facility to prevent water from entering or leaving the site, and not allowing material to be tracked off site. The composting facility will comply with any new regulatory requirements related to the new General Order, and design the Anaerobic Digester according to water board requirements as well.

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

[33] Porter-Cologne Water Quality Control Act Summary, http://ceres.ca.gov/wetlands/permitting/Porter_summary.html
[34] State Water Board Website, http://www.waterboards.ca.gov/about_us/water_boards_structure/mission.shtml
[35] State Water Resources Control Board Water Quality Order No. Dwq-2012-Xxxx

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."[36]

"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."[37]

California Department of Water Resources[38]

This Department's 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 Policy & Regulations

Tulare County Environmental Health Services

"The Environmental Health Services Division regulates retail food sales and hazardous waste storage and disposal; inspects contaminated sites and monitors public water systems, which protects and reduces the degradation of groundwater. The Division regulates the production and

[36] State Water Board Website, http://www.waterboards.ca.gov/about_us/water_boards_structure/mission.shtml
[37] Central Valley Water Quality Control Board, http://www.swrcb.ca.gov/centralvalley/about_us/
[38] California Department of Water Resources website, http://www.water.ca.gov/about/mission.cfm

shipping of milk for Tulare and Kings Counties and also serves as staff to the Tulare County Water Commission appointed by the Board of Supervisors. The goal of HHSA's Environmental Health division is to protect Tulare County's residents and visitors by ensuring that our environment is kept clean and healthy."[39] This division requires water quality testing of public water systems.

Any project that involves septic tanks and water wells within Tulare County is subject to approval by this agency. All recommendations provided by this division will be added as mitigation measures to ensure reduction of environmental impacts.

Tulare County General Plan Policies

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

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

HS-4.4 Contamination Prevention
The County shall review new development proposals to protect soils, air quality, surface water, and groundwater from hazardous materials contamination.

HS-5.2 Development in Floodplain Zones
The County shall regulate development in the 100-year floodplain zones as designated on maps prepared by FEMA in accordance with the following:

1. Critical facilities (those facilities which should be open and accessible during emergencies) shall not be permitted.
2. Passive recreational activities (those requiring non-intensive development, such as hiking, horseback riding, picnicking) are permissible.
3. New development and divisions of land, especially residential subdivisions, shall be developed to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions.

HS-5.4 Multi-Purpose Flood Control Measures
The County shall encourage multipurpose flood control projects that incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of the County's streams, creeks, and lakes. Where appropriate, the County shall also encourage the use of flood and/or stormwater retention facilities for use as groundwater recharge facilities.

[39] Tulare County Environmental Health Division, http://www.tularehhsa.org/index.cfm/public-health/environmental-health/

HS-5.9 Floodplain Development Restrictions
The County shall ensure that riparian areas and drainage areas within 100-year floodplains are free from development that may adversely impact floodway capacity or characteristics of natural/riparian areas or natural groundwater recharge areas.

HS-5.11 Natural Design
The County shall encourage flood control designs that respect natural curves and vegetation of natural waterways while retaining dynamic flow and functional integrity.

WR-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-2.4 Construction Site Sediment Control
The County shall continue to enforce provisions to control erosion and sediment from construction sites.

WR-2.5 Major Drainage Management
The County shall continue to promote protection of each individual drainage basin within the County based on the basins unique hydrologic and use characteristics.

WR-2.6 Degraded Water Resources
The County shall encourage and support the identification of degraded surface water and groundwater resources and promote restoration where appropriate.

WR-2.8 Point Source Control
The County shall work with the Regional Water Quality Control Board to ensure that all point source pollutants are adequately mitigated (as part of the California Environmental Quality Act review and project approval process) and monitored to ensure long-term compliance.

WR-3.3 Adequate Water Availability
The County shall review new development proposals to ensure the intensity and timing of growth will be consistent with the availability of adequate water supplies. Projects must submit a Will-Serve letter as part of the application process, and provide evidence of adequate and sustainable water availability prior to approval of the tentative map or other urban development entitlement.

WR-3.5 Use of Native and Drought Tolerant Landscaping
The County shall encourage the use of low water consuming, drought-tolerant and native landscaping and emphasize the importance of utilizing water conserving techniques, such as night watering, mulching, and drip irrigation.

WR-3.6 Water Use Efficiency
The County shall support educational programs targeted at reducing water consumption and enhancing groundwater recharge.

WR-3.10 Diversion of Surface Water
Diversions of surface water or runoff from precipitation should be prevented where such diversions may cause a reduction in water available for groundwater recharge.

IMPACT EVALUATION

Will the project:

a) Violate any water quality standards or waste discharge requirements?

Project Impact Analysis: ***Less than Significant Impact with Mitigation***

Stormwater (Surface Water Quality)

The project site is located in the Kaweah River Watershed. The Kaweah River begins in Sequoia National Park, flows west and southwest, and is impounded by Terminus Dam. The project site is not located along a natural water feature such as a lake, river or stream. There is an adjacent irrigation ditch adjacent to the site, and there is one other water way proximity 1000 feet to the project site.

The existing surface water bodies in the area include the Tulare Colony Ditch and Bates Slough Ditch. All activities on this project will continue to need to comply with the setback and surface water quality practices already established in order to protect these water bodies.

Harvest Power will comply with the requirements of the Regional Water Quality Control Board for their detention basins and effluent holding facilities. This includes updating the facilities, when the general order No. Dwq-2012-Xxxx is finalized. It is anticipated that the current site design, combined with the protections included in the energy facility design will be sufficient to protect ground and surface water quality issues related to this facility. All internal runoff created by the facility operations and precipitation up to a 100-year, 24 hour storm is currently, and will continue to be, contained on site. (See **Figure 3.9-3**). The existing site has over 35 acres of pervious surfaces (including windrows, retention basins, and dirt roadways). It has also been compacted to comply with current operational parameters designed to protect groundwater. However, water flow and the porosity of the surface is constrained by the composted material in the windrows. This has been quantified and be accounted for in the proposed project's berm height and drainage facility design. Construction/Engineering documents will be provided during the building permit stage.

Water coming into contact with any feedstock or composting material will be prevented from leaving the site. The proposed retention pond is designed to collect water from the entire 35 acre site. (See **Figure 3.9-4** proposed drainage swale). This facility will require RWQCB approval for the drainage systems. The current berms and slopes will be modified, if needed, to ensure that current conditions are met.

The digester operation and CNG facilities will generate 3 acres of additional impervious surfaces (including the digester facilities and CNG/CHP tanks, concrete areas, compacted road base, the detention basin (aka drainage swale). With implementation of the proposed Project, the total impervious surface will be approximately 3 acres. The drainage basins for

the project are designed for 100 year, 24 hour storm events and should be sufficient to prevent offsite discharge of storm water.

The proposed Project will maintain all storm water on site. Therefore, the stormwater will not include any discharges. However, the Central Valley Regional Water Quality Control Board (RWQCB) will be consulted and require the appropriate water quality permit for this project, if a RWD is required. A letter from the RWQCB to the County will be required for the project to begin receive building permits and begin construction.

The facility will continue to comply with any regulations or procedures required by the state or regional water quality control board. The drainage ponds will continue to be maintained to manage weed growth and prevent fly and mosquito breeding.

As described earlier in the document, all liquid digestate from the facility will either be applied directly to the compost piles, substituting for water that will have been needed for the composting process. It will also be incorporated into the composted material. In periods of heavy rain, this digestate will be stored either in a lined and covered lagoon, or storage tank and then applied to the compost piles during drier periods.

If storage tanks are chosen, they will be liquid-tight. In addition, they will be equipped with a leak detection system. A matt wicking material and a High Density Polyethylene (HDPE) liner with welded seams will be laid underneath the foundation, secured to the tank walls and connected to a visual monitoring well so that any leakage can be observed and contained. In the unlikely event of a leak, the inspection well also acts as an access to vacuum the leaking fluid and pump back into the tanks. This design has been implemented and approved by the Central Valley Regional Water Quality Control Board for similar anaerobic digester projects in the Central Valley.

The material receiving device consists of a fully containerized unit. The organic separator will be liquid tight, as well. As a precautionary measure, food waste or leaking material will be further contained by mounting the equipment on concrete foundations with elevated lip seals as to prevent any contamination from reaching the ground.

As part of the National Pollutant Discharge Eliminations System (NPDES), the applicant will be required to comply with the NPDES requirements. Currently, this is accomplished by the berm and pond design of the site, and not allowing water to enter or exit the site. If the new site design requires it, Harvest Power will prepare a Storm Water Pollution Prevention Plan (SWPPP) and Storm Water Monitoring Plan (SWMP). Within this SWPPP/SWMP, it is noted that the proposed Project will comply with the General Permit for Industrial Dischargers. As part of this compliance the applicant will 1) demonstrate compliance with permit requirements, 2) evaluate changing conditions and practices at the site to control pollutants in stormwater discharges, 3) implement the SWPPP, and 4) measure effectiveness of BMPs. In addition, the General Permit requires annual testing and reporting of results to the RWQCB.

Figure 3.9-3
Existing Retention and Drainage Plan

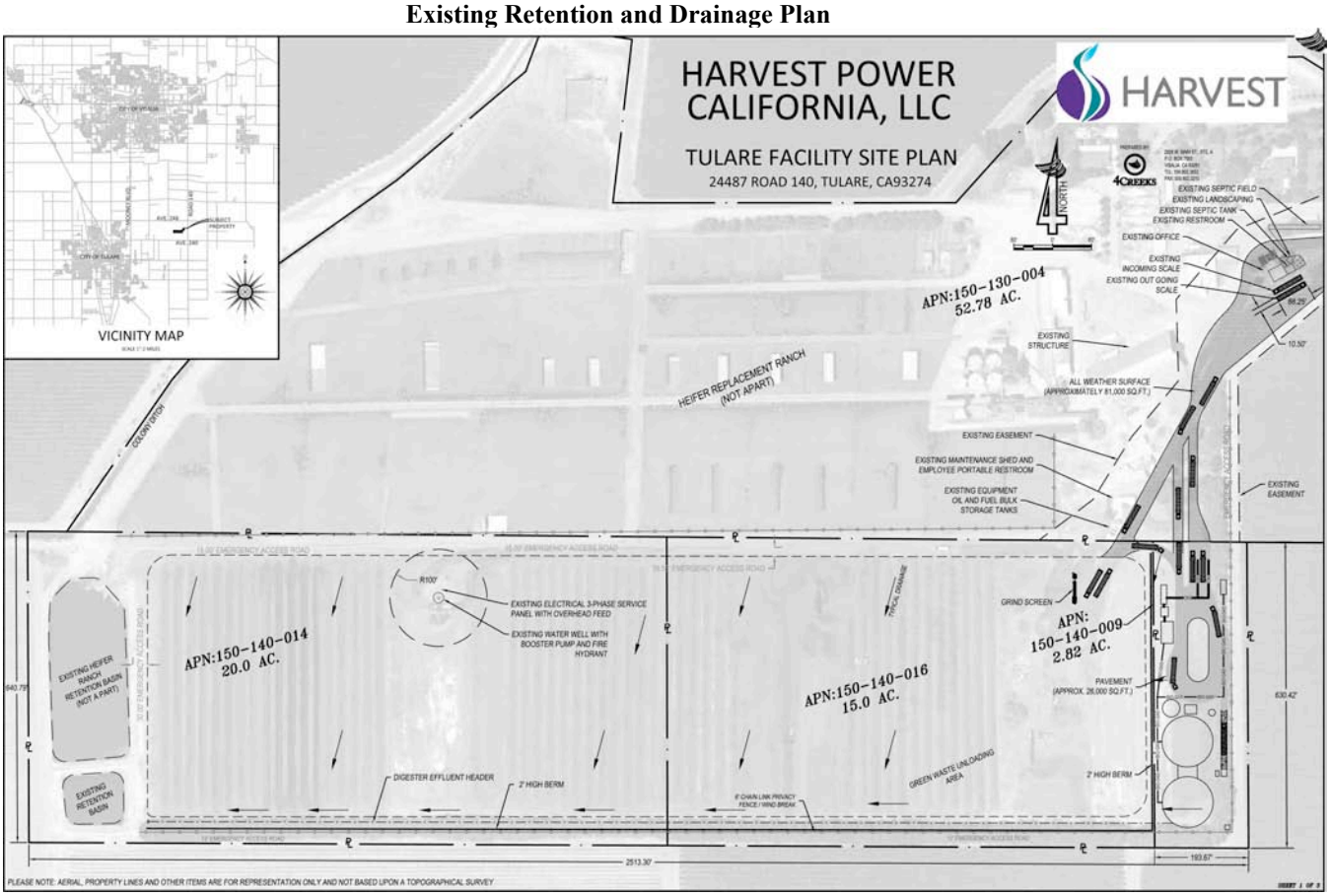
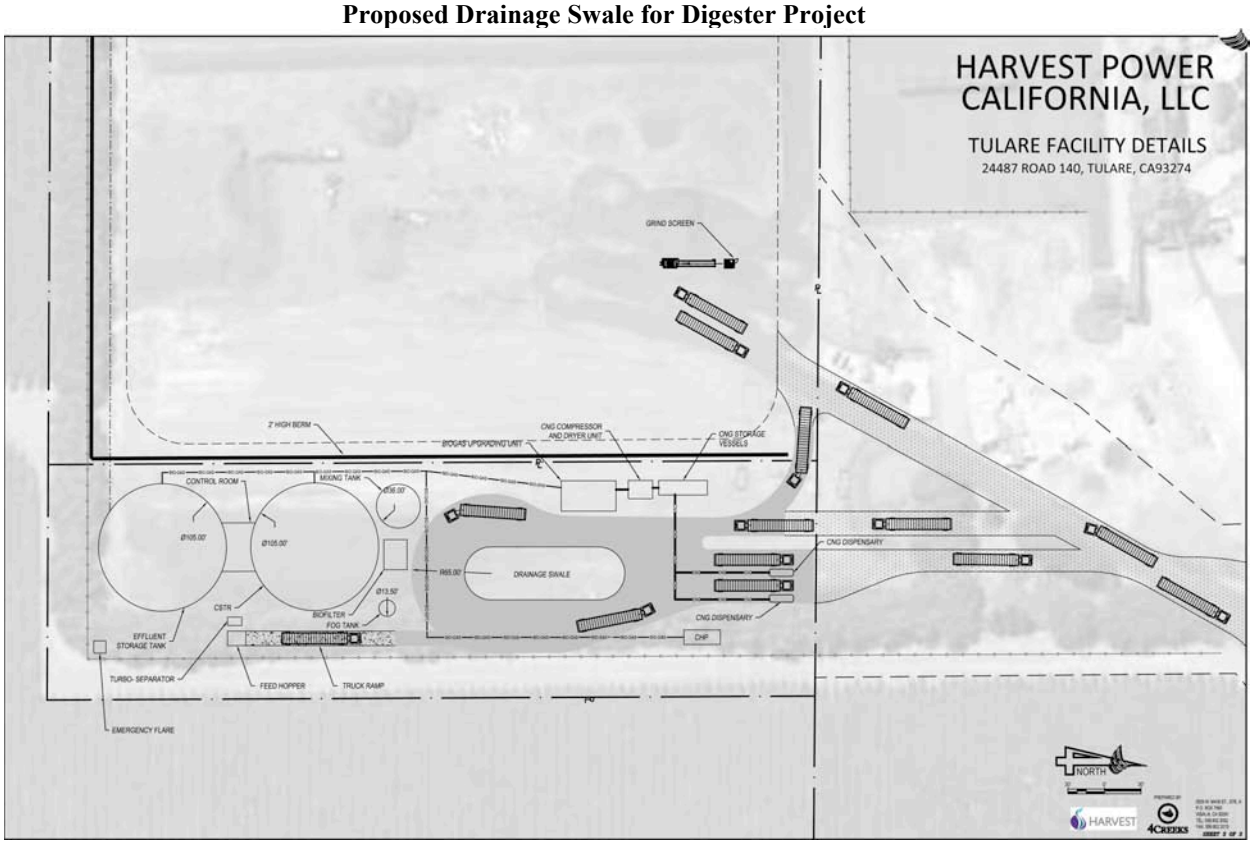


Figure 3.9-4
Proposed Drainage Swale for Digester Project



Ground Water Quality

Water usage on the site will consist of using water down all travel ways and compost piles during the dry months and will create little to no runoff. The runoff that does not evaporate will be allowed to percolate through the ground surface. All internal runoff created by the facility operations will therefore be contained on site and drainage patterns on the site will not be significantly altered during development. A retention pond will be designed to collect runoff water from the proposed Project site and is expected per the attached drainage design proposed by 4 Creeks Engineers, to have the capacity to store the 100 year / 24 hour event. (See **Figure 3.9-3**). The existing berms and slopes on the existing compositing facility site will also be modified to ensure that proposed Project water runoff is contained on site. Moreover, the State Water Resources Control Board (SWRCB) requires any new construction project over an acre to complete a Stormwater Pollution Prevention Plan (SWPPP). A SWPPP involves site planning and scheduling, limiting disturbed soil areas, and determining best management practices to minimize the risk of pollution and sediments being discharged from construction sites. Implementation of the SWPPP will minimize the potential for the proposed Project to substantially alter the existing drainage pattern in a manner that will result in substantial erosion or siltation onsite or offsite. Additionally, there will be no discharge to any surface or groundwater source.

General Tentative Composting Order No. Dwq-2012-Xxxx

Upon the Composting Order becoming final, Harvest Power will have to update their facilities to comply with the General Composting Order. They will also have to make all changes to the detention facilities to make sure that the water in the facility is being kept to RWQCB standards. In addition, they will have to comply with all compost storage requirements and monitoring requirements of the RWQCB.

With mitigation, *less than significant* project specific impacts related to this checklist item will occur.

Cumulative Impact Analysis: ***Less than Significant Impact with Mitigation***

The geographic area of this cumulative analysis is the Tulare Lake Basin. This cumulative analysis is based on information provided in the Water Quality Control Plan for the Tulare Lake Basin and the requirements of Tulare County Environmental Health.

The proposed Project (as mitigated), will be required to comply with the all requirements of the Central Valley Water Board and Tulare County Health Services Division (TCEHSD). In addition, the drainage and pond plans will be reviewed and approved by the Central Valley Regional Water Quality Control Board and may require a Report of Waste Discharge (RWD) National Pollution Discharge and Elimination System (NPDES) permit, if one is required. The on site drainage will also be reviewed by Tulare County Environmental Health and the Public Works Department to verify that the site does in fact contain the 100 year / 24 hour event per Regional Water Quality Control Board standards. Moreover, the concrete under the Truck Ramp, Feed Hopper, and Turbo Separator CTSR tank/ Control Room / Effluent Storage Area, will be contained through lining the concrete under these facilities and water proofing their surfaces Therefore, the proposed Project will not create any significant cumulative impacts related to this checklist item.

Mitigation Measures:

3.9-1 The applicant shall receive all required permits from the RWQCB and the State Water Board prior to the issuance of building permits.

3.9-2 The proposed Project shall comply with any new regulations brought by the RWQCB and/or the State Water Board. This includes, but is not limited to, regulations pertaining to the General Tentative Composting Order No. Dwq-2012-Xxxx for composting facilities.

3.9-3 The applicant shall prepare and submit a SWPPP to Tulare County prior to the issuance of a building permit. This SWPPP shall be implemented and retain on site as part of business operations.

3.9-4 That any tanks or basin lining be designed to RWQCB standards and approved by TCEHSD prior to the issuance of a building permit.

3.9-5 That any piping be reviewed and approved by the TCEHSD to verify that the contents will not pollute the groundwater.

3.9-6 The drainage system, including the berms, and the retention pond and drainage swale facilities shall be designed, and the plans stamped by a registered Professional Engineer, of whom must be registered and/or licensed in California, and have professional knowledge and experience in the field of on site drainage and detention facility design. The specifications and engineering data for the drainage system and detention facilities shall be submitted to the Public Works Department and TCEHSD for review and approval prior to the issuance of a building permit.

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

As noted above, no significant impacts related to this checklist item will 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***

As noted in the water usage analysis, agricultural activities typically use 3 feet of water per year. The proposed Project will use 14,985,000 gallons of water per year. This amounts to 46 acre feet of water per year. Crops in the area use 3 feet of water per year, while the Project's water usage amounts to 1.3 feet per acre per year. [40] As the proposed water use will be lower than the water use of a permitted agricultural activity, less than significant project specific impacts will result.

Cumulative Impact Analysis: ***Less than Significant Impact***

The geographic area of this cumulative analysis is the Tulare Lake Basin. This cumulative analysis is based on information provided in the Water Quality Control Plan for the Tulare Lake Basin and the requirements of Tulare County Environmental Health.

As noted in the California Water Plan 2009, Regional Report 3, Tulare Lake, it is estimated the future water demand will be reduced by 550,000 acre-feet in future conditions. The

[40] Ground Water Extraction Letter, John Minney

proposed expansion will create a need for a small increase in the amount of water usage; however, this usage is less than the water usage of a typical agricultural activity. As noted in the 2009 Water plan, part of the water demand reduction if the conversion of agricultural uses to more urban uses. The proposed Project is one of many projects that is part of an overall reduction of water use by agricultural activities. Therefore, even with a slightly more intensive use, water supply will not be impacted on a cumulative level.

Mitigation Measures:

None Required.

Conclusion: ***Less than Significant Impact***

As noted above, less than significant project specific and cumulative impacts related to this checklist item will occur.

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***

The project site is not located along a natural water feature such as a lake, river or stream.

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

The geographic area of this cumulative analysis is Tulare County. Alteration of a stream or river will be subject to the regulations of the U.S. Army Corps of Engineers and the California Department of Fish and Game.

The proposed Project will not affect the drainage pattern of any off-site parcels, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no project specific or cumulative impacts related to this checklist item will 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 project site is not located along a natural water feature such as a lake, river or stream. There is an adjacent irrigation ditch adjacent to the site, however, the changes to the drainage pattern will not impact the irrigation ditch. As such, no project specific impacts related to this checklist item will occur.

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

The geographic area of this cumulative analysis is Tulare County. Alteration of a stream or river will be subject to the regulations of the U.S. Army Corps of Engineers and the California Department of Fish and Game.

The proposed Project will not affect the drainage pattern of any off-site parcels, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no project specific or cumulative impacts related to this checklist item will 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 will typically vary depending non-slope steepness/stability, vegetation/cover, concentration of runoff, and weather conditions. The proposed Project site is currently receives an average of nine inches of rain/year. The site will continue to have a flat topography after proposed Project construction, but continue to have 2 foot berms around the edges. As such, construction activities will minimally disturb the ground surface. Drainage patterns will be minimally changed as a result of proposed Project. All internal runoff created by the facility operations and precipitation up to a 100-year, 24 hour storm is currently, and will continue to be, contained on site, as discussed, above. A SWPPP will be in place during construction, as also described above. There are no rivers or streams within a

five (5) radius of the site. As such, no project specific impacts related to this checklist item will occur.

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

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the requirements of the Central Valley Regional Water Quality Control Board.

As noted in the SWPPP, storm water will be retained on site. As such, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no project specific or cumulative impacts related to this checklist item will occur.

f) Otherwise substantially degrade water quality?

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

The proposed Project does not include elements that could degrade water quality beyond what was discussed in 3.9 a). No project specific impacts related to this checklist item will occur.

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

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the requirements of the Central Valley Regional Water Quality Control Board.

As noted above, the proposed Project does not include elements that could degrade water quality beyond what was discussed in 3.9 a). No cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no project specific or cumulative impacts related to this checklist item will 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 proposed Project does not include the construction of any housing units. No project specific impacts related to this checklist item will occur.

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

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

The proposed Project does not include any housing units. Therefore, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no project specific or cumulative impacts related to this checklist item will occur.

h) Place within a 100-year flood hazard area structures which will impede or redirect flood flows?

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

According to the Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM) for Community Number 06107C0970E dated June 16, 2009; the Project site is located in Zone A. Zone A areas are not in the 100 year flood hazard area with undefined baselines. Construction within Zone A requires no specific flood mitigation measures. The construction of housing is not a part of the proposed Project. There will be no impact with regard to flood related events.

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 Project will not have off site impacts related to flooding. In addition, the proposed Project will not induce additional flooding hazards. No cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no project specific or cumulative impacts related to this checklist item will 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."[41]

The proposed Project site is inside the inundation areas for Terminus Dam, which is approximately 18 miles from the site. However the proposed Project does not include any residential structures and therefore will not be placing people or structures to the risk of flooding from potential failure of a levee or dam. In addition, the proposed Project does not involve significant water storage or changing the alignment of an established watercourse. No project specific impacts related to this checklist item will occur.

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

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

[41] General Plan Background Report, page 8-17

As noted above, the proposed Project is not located near a major levee or dam. The proposed Project will not have any impacts related to this checklist item on other off-site parcels. Therefore, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no project specific or cumulative impacts related to this checklist item will occur.

j) Inundation by seiche, tsunami, or mudflow?

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

The nearest large body of water is Kaweah Lake, which is located approximately 19 miles northeast of the proposed Project site. Due to the distance between the reservoir and the proposed Project site, there will be no potential for seiche or tsunami to occur. There will be no impact.

The project is site is relatively flat and is not located near a large body of water, the coast or hillsides. As such, the proposed Project is not subject to inundation by seiche, tsunami, or mudflow. No project specific impacts related to this checklist item will occur.

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

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

As noted above, the proposed Project is not located near a large body of water, the coast or hillsides. The proposed Project will not have any impacts related to this checklist item on other off-site parcels. No Cumulative Impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no project specific or cumulative impacts related to this checklist item will occur.

REFERENCES

Water Quality Control Plan for the Tulare Lake Basin, California Regional Water Quality Control Board Central Valley Region, August 17, 2005

California Water Plan Update 2009, Volume 3 Tulare Lake, California Department of Water Resources

Tulare County 2030 General Plan, August 2012

Tulare County 2030 General Plan Background Report, February 2010

EPA summary of the Safe Drinking Water Act:
http://water.epa.gov/lawsregs/rulesregs/sdwa/index.cfm

EPA summary of the Clean Water Act:
http://www.epa.gov/lawsregs/laws/cwa.html

Flood Insurance Program Summary:
http://www.floodsmart.gov/floodsmart/pages/about/nfip_overview.jsp

California Department of Water Resources, http://www.water.ca.gov/

FEMA Flood Zone Designations:
https://msc.fema.gov/webapp/wcs/stores/servlet/info?storeId=10001&catalogId=10001&langId=-1&content=floodZones&title=FEMA%2520Flood%2520Zone%2520Designations

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http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx

Porter-Cologne Water Quality Control Act Summary,
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State Water Resources Control Board Water Quality Order No. Dwq-2012-Xxxx

Ground Water Extraction Letter, John Minney, February 11, 2013

Central Valley Water Quality Control Board, http://www.swrcb.ca.gov/centralvalley/about_us/

California Department of Water Resources website, http://www.water.ca.gov/about/mission.cfm

Tulare County Environmental Health Division, http://www.tularehhsa.org/index.cfm/public-health/environmental-health/

Land Use and Planning
Chapter 3.10

SUMMARY OF FINDINGS

The proposed Project will result in less than significant impacts to Land Use and Planning with mitigation. 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 Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

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

[1] 2012 CEQA Guidelines, Section 15126.2 (a)

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

Thresholds of Significance

- Divide Community
- Conflict with Applicable land use pan policy, or regulation of an agency with jurisdiction over the project
- Conflict with applicable habitat conservation plan

ENVIRONMENTAL SETTING

"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 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."[2]

"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… As of January 2009, the Department of Finance (DOF) estimates the County population to be 441,481…"[3]

REGULATORY SETTING

Federal Agencies & Regulations

Federal Endangered Species Act

"Through federal action and by encouraging the establishment of state programs, the 1973 Endangered Species Act provided for the conservation of ecosystems upon which threatened and endangered species of fish, wildlife, and plants depend. The Act:

- authorizes the determination and listing of species as endangered and threatened;
- prohibits unauthorized taking, possession, sale, and transport of endangered species;
- provides authority to acquire land for the conservation of listed species, using land and water conservation funds;

[2] 2011 TCAG Regional Transportation Plan, page 1-11
[3] Ibid., page 1-4

- authorizes establishment of cooperative agreements and grants-in-aid to States that establish and maintain active and adequate programs for endangered and threatened wildlife and plants;
- authorizes the assessment of civil and criminal penalties for violating the Act or regulations;
- authorizes the payment of rewards to anyone furnishing information leading to arrest and conviction for any violation of the Act or any regulation issued there under."[4]

State Agencies & Regulations

California Department of Fish and Game

"The Department of Fish and Game maintains native fish, wildlife, plant species and natural communities for their intrinsic and ecological value and their benefits to people. This includes habitat protection and maintenance in a sufficient amount and quality to ensure the survival of all species and natural communities. The department is also responsible for the diversified use of fish and wildlife including recreational, commercial, scientific and educational uses."[5]

California Endangered Species Act

"The California Endangered Species Act (CESA) states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. The Department will work with all interested persons, agencies and organizations to protect and preserve such sensitive resources and their habitats."[6]

Local Policy & Regulations

Tulare County Association of Governments (TCAG)

"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."[7] TCAG's 2009 Regional Blueprint includes a goal of a 25% increase in land use densities facilitated with urban growth and expansion of transportation facilities.

Existing County Land Uses

The proposed Project site is located in the northwestern portion of Tulare County. The Tulare County is located in the San Joaquin Valley portion of the Great Central Valley of California that lies south of the Sacramento-San Joaquin Delta, and is comprised of 4,863 square miles. The County is bordered by Fresno County to the north, Kings County to the west, Kern County to the south, and Inyo County to the east. The valley portion of land totals approximately 3,930 square

[4] Federal Endangered Species Act, http://www.fws.gov/laws/lawsdigest/esact.html
[5] California Department of Fish and Game website, http://www.dfg.ca.gov/about/
[6] California Endangered Species Act, http://www.dfg.ca.gov/habcon/cesa/
[7] Tulare County Council of Governments (TCAG) Website, http://www.tularecog.org/

miles or approximately 81 percent of Tulare County. Open space, which includes wilderness, national forests, monuments and parks, and county parks, encompass approximately 1,230 square miles, or approximately 25 percent of the County. Agricultural uses total approximately 2,150 square miles or approximately 44 percent of the entire County. Incorporated cities in the Tulare County account for less than three percent of the entire County area.

IMPACT EVALUATION

Would the project:

a) Physically divide an established community?

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

The proposed Project does not include the construction of a major highway or railroad track. Further, the proposed Project does not require any off-site construction. The proposed Project does not include a general plan amendment or zone change. As such, no project specific impacts related to this checklist item will occur.

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

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

The project is located in an agricultural area in west-northwestern Tulare County, approximately four (4) miles northeast of the City of Tulare, and five (5) miles south of the City of Visalia. The proposed Project site does not have any residential uses on-site and the nearest residential uses are large lot rural residential uses located within a one mile vicinity. Surrounding uses are primarily agricultural uses such as orchards and vineyard. Therefore, the proposed Project will not physically divide any established community. The proposed Project is not part of a new transportation facility that could divide a community. No cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts related to this checklist item will occur.

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: ***Less than Significant Impact with Mitigation***

The proposed Project site is located within Tulare County. The Updated County of Tulare General Plan, 2030, designates the site for agricultural land uses and is included in the Rural Valley Lands Plan (RVLP). The zoning for the site is Exclusive Agriculture - 40 acre minimum) AE-40 (See **Figure 3.10-1**). The existing Project is consistent with the existing land use and zoning under PSP 99-026 (ZA). Changes to the PSP 99-026 (ZA) Conditions of Approval (COA) include an increase in tonnages and the type of material recycled at this facility. The Project will require approval of Special Use Permits PSP 09-075 and PSP 12-039. As described earlier, the proposed Project is consistent with the underlying General Plan land use and zoning with the approval of the special use permits. Moreover, the proposed Project is expanding the operations of an existing composting facility. The impact will 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 proposed expansion outlined in the use permit request, does not include any variances and would not result in significant impact related to a conflict with a policy or plan. Less than significant cumulative impacts related to this checklist item would occur.

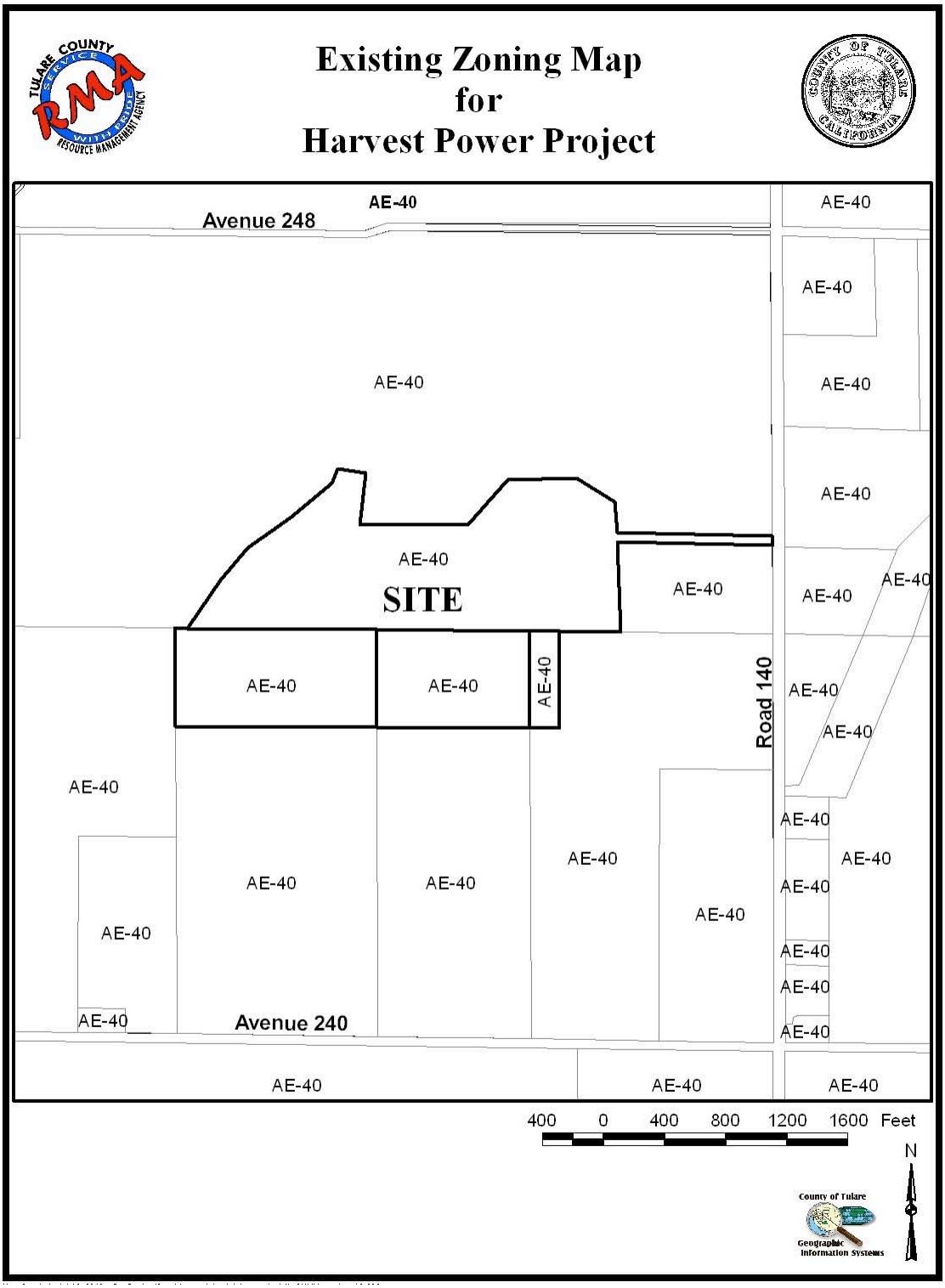
Mitigation Measures:

3.10-1 The composting and anaerobic digester operator shall adhere to all conditions of approval noted in the Use Permits for the composting expansion and the anaerobic digester.

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

As noted earlier, the Project will have a less than significant impact to land use and zoning regulations upon adoption of the changes to the conditions of approval for the use permit(s) for the proposed Project.

Figure 3.10-1
Existing Zoning



c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Project Impact Analysis: ***Less than Significant Impact***

As noted in Chapter 3.4, there are two habitat conservation plans that apply in Tulare County. The Kern Water Habitat Conservation Plan only applies to an area in Allensworth and 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 on the project site. As such, no project specific impacts related to this checklist item would occur.

Cumulative Impact Analysis: ***Less than Significant Impact***

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

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 Measures:

None Required.

Conclusion: ***Less than Significant Impact***

As noted above, less than significant project specific or cumulative impacts related to this checklist item would occur.

REFERENCES

2011 Regional Transportation Plan, Tulare County Association of Governments (TCAG), July 11, 2012

Tulare County 2030 General Plan, August 2012

Tulare County Council of Governments (TCAG) Website, http://www.tularecog.org/

2012 CEQA Guidelines

Mineral Resources
Chapter 3.11

SUMMARY OF FINDINGS

The proposed Project will not have any significant impacts related to Mineral Resources, as the project site is not located near a known mineral resource area. No mitigation measures will be required. A detailed review of potential impacts is provided in the analysis below.

INTRODUCTION

California Environmental Quality Act (CEQA) Requirements

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

As noted in 15126.2 (a), "[a]n EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there. Similarly, the EIR should evaluate any potentially significant impacts of locating development in other areas susceptible to hazardous conditions (e.g., floodplains, coastlines, wildfire risk areas) as identified in authoritative hazard maps, risk assessments or in land use plans addressing such hazards areas."[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 the Tulare County 2030 General Plan, the Tulare County General Plan Background Report and/or the

[1] 2012 CEQA Guidelines, Section 15126.2 (a)

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

- Impact a known Mineral Resource

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 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

[2] General Plan Background Report, pages 10-18
[3] General Plan Background Report, page 10-17

reserves as determined by such evidence as drilling records, sample analysis, surface exposure, and mine information. Land included in the MRZ-2a category is of prime importance because it contains known economic mineral deposits. A typical MRZ-2a area would include an operating mine, or an area where extensive sampling indicates the presence of a significant mineral deposit.

C. *MRZ-2b*—Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified MRZ-2b contain discovered deposits that are either inferred reserves or deposits that are presently sub-economic as determined by limited sample analysis, exposure, and past mining history. Further exploration work and/or changes in technology or economics could result in upgrading areas classified MRZ-2b to MRZ-2a. A typical MRZ-2b area would include sites where there are good geologic reasons to believe that an extension of an operating mine exists or where there is an exposure of mineralization of economic importance.

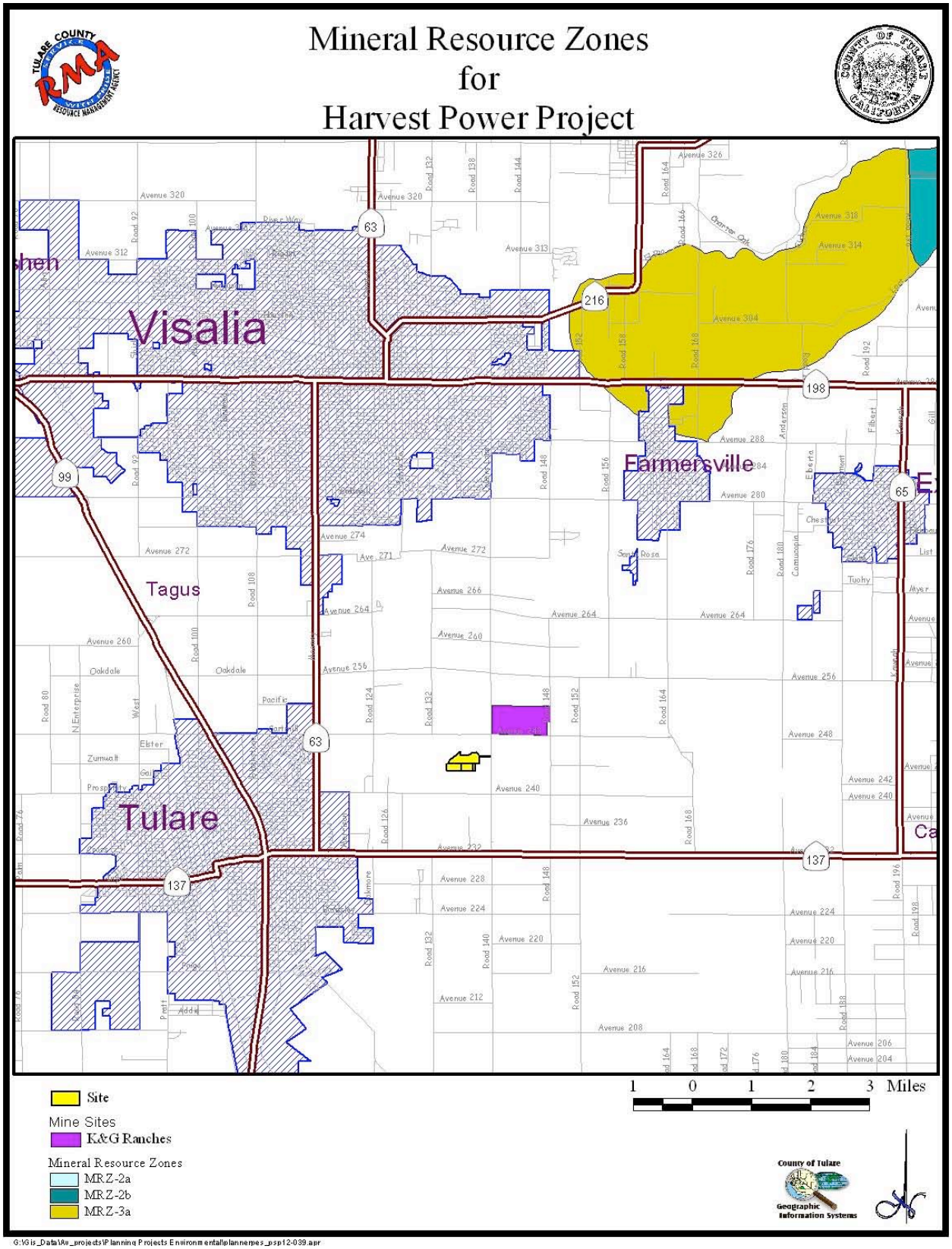
D. *MRZ-3a*—Areas containing known mineral deposits that may qualify as mineral resources. Further exploration work within these areas could result in the reclassification of specific localities into the MRZ-2a or MRZ-2b categories. MRZ-3a areas are considered to have a moderate potential for the discovery of economic mineral deposits. As shown on the diagram of the California Mineral Land Classification System, MRZ-3 is divided on the basis of knowledge of economic characteristics of the resources. An example of a MRZ-3a area would be where there is direct evidence of a surface exposure of a geologic unit, such as a limestone body, known to be or to contain a mineral resource elsewhere but has not been sampled or tested at the current location.

E. *MRZ-3b*—Areas containing inferred mineral deposits that may qualify as mineral resources. Land classified MRZ- 3b represents areas in geologic settings which appear to be favorable environments for the occurrence of specific mineral deposits. Further exploration work could result in the reclassification of all or part of these areas into the MRZ-3a category or specific localities into the MRZ-2a or MRZ-2b categories. MRZ-3b is applied to land where geologic evidence leads to the conclusion that it is plausible that economic mineral deposits are present. An example of a MRZ-3b area would be where there is indirect evidence such as a geophysical or geochemical anomaly along a permissible structure which indicates the possible presence of a mineral deposit or that an ore-forming process was operative.

F. *MRZ-4*—Areas where geologic information does not rule out either the presence or absence of mineral resources. The distinction between the MRZ-1 and MRZ-4 categories is important for land-use considerations. It must be emphasized that MRZ-4 classification does not imply that there is little likelihood for the presence of mineral resources, but rather there is a lack of knowledge regarding mineral occurrence. Further exploration work could well result in the reclassification of land in MRZ-4 areas to MRZ-3 or MRZ-2 categories."[4]

[4] Guidelines for classification and designation of mineral land, pages 4 to 6

Figure 3.11-1
Mineral Resource Zones



REGULATORY SETTING

Federal Agencies & Regulations

None that apply to the proposed Project.

State Agencies & Regulations

Surface Mining and Reclamation Act of 1975 (SMARA)

"The Surface Mining and Reclamation Act (SMARA), Chapter 9, Division 2 of the Public Resources Code, requires the State Mining and Geology Board to adopt State policy for the reclamation of mined lands and the conservation of mineral resources. These policies are prepared in accordance with the Administrative Procedures Act, (Government Code) and are found in California Code of Regulations, Title 14, Division 2, Chapter 8, Subchapter 1.

The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, Sections 2710-2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. SMARA also encourages the production, conservation, and protection of the state's mineral resources. Public Resources Code Section 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]

[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

Local Policy & Regulations

Tulare County General Plan Policies

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

ERM-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.

IMPACT EVALUATION

Would the project:

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

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

The project site is not located in or near a known mineral resource zone (MRZ). The closest MRZ (classified as "3a") is located approximately 6.5 miles north of the project site. MRZ Class 3a is defined as areas of known mineral occurrence but undetermined resource significance. There will be no project specific impacts related to this resource.

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

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

As noted above, the proposed Project does not include mining operations and is not located within a known mineral resource zone. No cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no project specific or cumulative impacts related to this resource will occur.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

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

As noted in the Response to 3.11 a), the proposed Project does not include a mining operation and the project site is not located in or near a known mineral resource zone. The project site is located approximately 0.40 miles south of an existing permitted Tulare County Surface Mine (K&G Ranches, Surface Mine Permit PMR 01-005). This mine permit was granted so that the operator, a walnut farmer, could excavate sand streaks on the property, with reclamation to expand an existing walnut orchard. The owner plans to sell or give the sand to the County and or local materials suppliers at his discretion. The applicant completed excavation of the sand several years ago, and the site is in final reclamation. The proposed Project will not create any project specific impacts related to this resource.

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

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

As noted in the Response to 3.11 a), the proposed Project does not include a mining operation and is not located within a mineral resource zone. As such, no cumulative impacts related to this resource will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no project specific or cumulative impacts related to this resource will occur.

DEFINITIONS/ACRONYMS

Acronyms

(MRZ)	Mineral Resource Zone
(OMR)	Office of Mine Reclamation
(SMGB)	State Mining & Geology Board
(SMARA)	Surface Mining and Reclamation Act

REFERENCES

Tulare County 2030 General Plan, August 2012

Tulare County 2030 General Plan Background Report, February 2010

California Department of Conservation, Division of Mines and Geology, "Guidelines for Classification and Designation of Mineral Lands", http://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf

2012 CEQA Guidelines

SMARA Description, http://www.conservation.ca.gov/smgb/Regulations/Pages/regulations.aspx

State Mining & Geology Board (SMGB), http://www.conservation.ca.gov/smgb/Pages/Index.aspx

Office of Mine Regulation, http://www.conservation.ca.gov/OMR/Pages/Index.aspx

Noise
Chapter 3.12

SUMMARY OF FINDINGS

The proposed Project will result in less than significant impacts related to Noise. No mitigation measures will be required. 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 related to Noise. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in 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 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

[1] 2012 CEQA Guidelines, Section 15126.2 (a)

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

- Exceed Tulare County Standards for Noise Levels
- Expose people of excessive groundborne vibration
- Expose people to excessive airport/airstrip noise

ENVIRONMENTAL SETTING

"Noise in the community has often been cited as being a health problem, not in terms of actual damage such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities such as sleep, speech, recreation, and tasks demanding concentration or coordination. When community noise interferes with human activities or contributes to stress, public annoyance with the noise source increases, and the acceptability of the environment for people decreases. This decrease in acceptability and the threat to public well-being are the bases for land use planning policies preventing exposure to excessive community noise levels."[2]

"Noise sources are commonly grouped into two major categories: transportation and non-transportation noise sources. Transportation noise sources include surface traffic on public roadways, railroad line operations, and aircraft in flight. Non-transportation (or fixed), noise sources, commonly consist of industrial activities, railroad yard activities, small mechanical devices (lawnmowers, leaf blowers, air conditioners, radios, etc.), and other sources not included in the traffic, railroad and aircraft category."[3]

"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."[4]

"The Safety section of the Tulare County General Plan Background Report and the Tulare County General Plan 2030 Update serve as the primary policy statement by the County for implementing policies to maintain and improve the noise environment in Tulare County. The

[2] TCAG 2011 Regional Transportation Plan Draft Subsequent EIR, page 151
[3] Ibid., page 153
[4] General Plan Background Report, page 8-77

General Plan presents Goals and Objectives relative to planning for the noise environment within the County. Future noise/land use incompatibilities can be avoided or reduced with implementation of the Tulare County noise criteria and standards. Tulare County realizes that it may not always be possible to avoid constructing noise sensitive developments in existing noisy areas and therefore provides noise reduction strategies to be implemented in situations with potential noise/land use conflicts.

Table 3.12-1 shows Tulare County's Maximum Acceptable Ambient Noise Exposure for Various Land Uses. During preparation of this NSR, conformance of the proposed project with the County's Maximum Acceptable Ambient Noise Exposure for Various Land Uses is used to evaluate potential noise impacts and provides criteria for environmental impact findings and conditions for project approval."[5]

Table 3.12-1
Maximum Acceptable Ambient Noise Exposure for Various Land Uses

Land Use	Suggested Maximum Ldn
Residential – Low Density	60
Residential – High Density	65
Transient Lodging	65
Schools, libraries, churches, hospitals	65
Playgrounds, park	65
Commercial	70
Industrial	75
Notes: Ldn = Day-Night Average Sound Level	

Source: Noise Report

REGULATORY SETTING

Federal Agencies & Regulations

Federal Highways Administration (FHWA) Highway Traffic Noise Prediction methodology

"In March 1998, the Federal Highway Administration (FHWA) released the Traffic Noise Model, Version 1.0 (FHWA TNM®). It was developed as a means for aiding compliance with policies and procedures under FHWA regulations. Since its release in March 1998, Version 1.0a was released in March 1999, Version 1.0b in August 1999, Version 1.1 in September 2000, Version 2.0 in June 2002, Version 2.1 in March 2003 and the current version, Version 2.5 in April 2004. The FHWA TNM is an entirely new, state-of-the-art computer program used for predicting noise impacts in the vicinity of highways. It uses advances in personal computer hardware and software to improve upon the accuracy and ease of modeling highway noise, including the design of effective, cost-efficient highway noise barriers."[6]

[5] Noise Study Report, VRPA Technologies, pages 8 to 9
[6] Federal Highway Administration website, Traffic Noise Model, http://www.fhwa.dot.gov/environment/noise/traffic_noise_model/

Federal Aviation Administration (FAA)

"Aircraft operated in the U.S. are subject to certain federal requirements regarding noise emissions levels. These requirements are set forth in Title 14 CFR, Part 36. Part 36 establishes maximum acceptable noise levels for specific aircraft types, taking into account the model year, aircraft weight, and number of engines. Pursuant to the federal Airport Noise and Capacity Act of 1990, the FAA established a schedule for complete transition to Part 36 "Stage 3" standards by year 2000. This transition schedule applies to jet aircraft with a maximum takeoff weight in excess of 75,000 pounds, and thus applies to passenger and cargo airlines, but not to operators of business jets or other general aviation aircraft."[7]

Federal Railway Administration (FRA) and the Federal Transit Administration (FTA)

"The Federal Railway Administration (FRA) and the Federal Transit Administration (FTA) have published guidance relative to vibration impacts. According to the FRA, fragile buildings can be exposed to groundborne vibration levels of 0.5 PPV without experiencing structural damage. The FTA has identified the human annoyance response to vibration levels as 80 VdB."[8]

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."[9]

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."[10]

California Department of Transportation (Caltrans)

"The State of California establishes noise limits for vehicles licensed to operate on public roads.

[7] TCAG 2011 Regional Transportation Plan Draft Subsequent EIR, page 152
[8] Ibid., page 152
[9] Ibid., page 153
Ibid.R, page 152

For heavy trucks, the State passby standard is consistent with the federal limit of 80 dB. The State passby 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."[11]

Local Policy & Regulations

Tulare County General Plan Policies

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

HS-8.1 Economic Base Protection
The County shall protect its economic base by preventing the encroachment of incompatible land uses on known noise-producing industries, railroads, airports, and other sources.

HS-8.2 Noise Impacted Areas
The County shall designate areas as noise-impacted if exposed to existing or projected noise levels that exceed 60 dB Ldn (or Community Noise Equivalent Level (CNEL)) at the exterior of buildings.

HS-8.3 Noise Sensitive Land Uses
The County shall not approve new noise sensitive uses unless effective mitigation measures are incorporated into the design of such projects to reduce noise levels to 60 dB Ldn (or CNEL) or less within outdoor activity areas and 45 dB Ldn (or CNEL) or less within interior living spaces.

HS-8.4 Airport Noise Contours
The County shall ensure new noise sensitive land uses are located outside the 60 CNEL contour of all public use airports.

HS-8.6 Noise Level Criteria
The County shall ensure noise level criteria applied to land uses other than residential or other noise-sensitive uses are consistent with the recommendations of the California Office of Noise Control (CONC).

HS-8.8 Adjacent Uses
The County shall not permit development of new industrial, commercial, or other noise-generating land uses if resulting noise levels will exceed 60 dB Ldn (or CNEL) at the boundary of areas designated and zoned for residential or other noise-sensitive uses, unless it is determined to be necessary to promote the public health, safety and welfare of the County.

HS-8.10 Automobile Noise Enforcement
The County shall encourage the CHP, Sheriff's office, and local police departments to actively enforce existing sections of the California Vehicle Code relating to adequate vehicle mufflers, modified exhaust systems, and other amplified noise.

[11] TCAG 2011 Regional Transportation Plan Draft Subsequent EIR, page 152

HS-8.11 Peak Noise Generators
The County shall limit noise generating activities, such as construction, to hours of normal business operation (7 a.m. to 7 p.m.). No peak noise generating activities shall be allowed to occur outside of normal business hours without County approval.

HS-8.13 Noise Analysis
The County shall require a detailed noise impact analysis in areas where current or future exterior noise levels from transportation or stationary sources have the potential to exceed the adopted noise policies of the Health and Safety Element, where there is development of new noise sensitive land uses or the development of potential noise generating land uses near existing sensitive land uses. The noise analysis shall be the responsibility of the project applicant and be prepared by a qualified acoustical engineer (i.e., a Registered Professional Engineer in the State of California, etc.). The analysis shall include recommendations and evidence to establish mitigation that will reduce noise exposure to acceptable levels (such as those referenced in Table 10-1 of the Health and Safety Element).

HS-8.14 Sound Attenuation Features
The County shall require sound attenuation features such as walls, berming, heavy landscaping, between commercial, industrial, and residential uses to reduce noise and vibration impacts.

HS-8.15 Noise Buffering
The County shall require noise buffering or insulation in new development along major streets, highways, and railroad tracks.

HS-8.16 State Noise Insulation
The County shall enforce the State Noise Insulation Standards (California Administrative Code, Title 24) and Chapter 35 of the Uniform Building Code.

HS-8.18 Construction Noise
The County shall seek to limit the potential noise impacts of construction activities by limiting construction activities to the hours of 7 am to 7pm, Monday through Saturday when construction activities are located near sensitive receptors. No construction shall occur on Sundays or national holidays without a permit from the County to minimize noise impacts associated with development near sensitive receptors.

HS-8.19 Construction Noise Control
The County shall ensure that construction contractors implement best practices guidelines (i.e. berms, screens, etc.) as appropriate and feasible to reduce construction-related noise-impacts on surrounding land uses.

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: ***No Impact***

"A continuous sound can be described by its frequency (pitch) and its amplitude (loudness). Frequency relates to the number of pressure oscillations per second. Low-frequency sounds are low in pitch, like the low notes on a piano, whereas high-frequency sounds are high in pitch, like the high notes on a piano. Frequency is expressed in terms of oscillations, or cycles, per second. Cycles per second are commonly referred to as Hertz (Hz). A frequency of 250 cycles per second is referred to as 250 Hz. High frequencies are sometimes more conveniently expressed in units of kilo-Hertz (kHz), or thousands of Hertz. The extreme range of frequencies that can be heard by the healthiest human ear spans from 16–20 Hz on the low end to about 20,000 Hz (or 20 kHz) on the high end."[12]

"Because decibels are logarithmic units, sound pressure levels cannot be added or subtracted by ordinary arithmetic means. For example, if one automobile produces an SPL of 70 dBA as it passes an observer, two cars passing simultaneously would not produce 140 dBA; they would, in fact, combine to produce 73 dBA. When two sounds of equal SPL are combined, they will produce a combined SPL 3 dBA greater than the original individual SPL. In other words, sound energy must be doubled to produce a 3 dBA increase. If two sound levels differ by 10 dBA or more, the combined SPL is equal to the higher SPL; in other words, the lower sound level does not increase the higher sound level."[13]

"Because of the ability of the human ear to detect a wide range of sound pressure fluctuations, sound pressure levels are expressed in logarithmic units called decibels. The sound pressure level in decibels is calculated by taking the log of the ratio between the actual sound pressure and the reference sound pressure squared. The reference sound pressure is considered the absolute hearing threshold. In addition, because the human ear is not equally sensitive to all sound frequencies, a specific frequency-dependent rating scale was devised to relate noise to human sensitivity. A dBA scale performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. The basis for comparison is the faintest sound audible to the average ear at the frequency of maximum sensitivity. This dBA scale has been chosen by most authorities for purposes of environmental noise regulation."[14]

"To assess existing noise conditions, VRPA Technologies' staff compiled current traffic counts and existing geometric conditions. Staff conducted noise level measurements at the project site and tabulated the results. The weather during the time of the noise measurements

[12] Noise Study Report, VRPA Technologies, page 6
[13] Ibid., page 6
[14] Ibid., page 4

consisted of sunshine and wind speeds of less than 5 mph. The purpose of the measurements was to evaluate the accuracy of the model in describing traffic noise exposure within the project site.

The locations for each field receptor location are described below in **Table 3.12-2** and are geographically depicted in Figure 4. Receptors 3, 4, 5, and 6 were added to the analysis and represent an existing school site and residential homes. These locations were not measured in the field but were evaluated for potential impacts from the proposed improvements at the Project site. It is anticipated that the Project site will experience an increase of approximately 35 daily trips, which will consist of heavy trucks, rendering dump trucks and liquid tanker trucks. For purposes of this analysis, it was assumed that 18 additional trips will enter and exit the site during the afternoon peak hour. This represents approximately half of the overall trips anticipated to be added to the daily traffic operations.

In addition to the increase in Project traffic, the Harvest Power site is proposing to add two (2) loaders, one (1) natural gas compressor, and possibly one (1) electric crane. During the site evaluation, it was determined that with the current equipment, the site experiences noise levels of approximately 56.8 Leq(h) dB at the entrance to the facility staging area. The following is a list of equipment that currently exists on the Project site:

- ✓ Five (5) loaders (4 Volvo / 1 Cat)
- ✓ 4600 Morbark Grinder
- ✓ 830 Power Screen
- ✓ Komptech L-3 Screen
- ✓ Komptech Hurricane Screen
- ✓ Two (2) Water Tractors
- ✓ Two (2) Roll Off Trucks

The equipment that is currently being used is not operated continuously during operation hours, but used as necessary for Project operations. The Tulare County General Plan Update has identified a sound level of 88 dBA for front-end loaders at a distance of 50 feet. The natural gas compressor will produce a decibel reading of approximately 70 dBA at a distance of 50 feet. Typically, cranes can generate sound levels of approximately 85 dBA at a distance of 50 feet. The Project is anticipated to add an electric crane, which is much quieter than a typical crane. However, for purposes of analyzing the Project's potential impacts, noise from a typical crane will be utilized."[15]

[15] Noise Study Report, VRPA Technologies, pages 12 to 13

Figure 3.12-1
Map of Sensitive Receptors

FIGURE 4

Noise Receptor Locations

LEGEND

Project Location

Field Receptor Locations

Modeled Receptor Locations

VRPA TECHNOLOGIES, INC.

"There are three (3) homes located approximately 700 feet to the north of the entrance of the facility staging area as depicted in **[Figure 3.12-1].** FHWA has identified that when buildings or trees/shrubs break the line of sight from the sound source to the receiver a decibel reduction of 3 – 5 dBs is plausible. Figure 6 also shows the approximate line of sight from the staging area entrance to the residential homes. There are several buildings between the staging area entrance and the homes in addition to the vast amount of trees/shrubs that surround the homes. A decibel reduction of 3 dB's was applied to noise levels at the residential locations as a result of the building structures and trees/shrubs that exist between the staging area entrance and the residential homes. Based on the distance from the source area, it is anticipated that the noise levels experienced at the residential homes from the new equipment will reach approximately 53 dBs."[16]

Table 3.12-2
Noise Impacts

Receptor Type	Receptor Number	Existing Noise Level Leq(h) dBA	Existing Noise Level Modeled Leq(h) DbA	Existing Plus Project Noise Level Leq(h) dBA	Impact
Project Site	1	56.8	42.1	70.4	None
Agricultural Site	2	64.8	72.0	66.0	None
School Site	3	--*	66.4	60.5	None
Residence	4	--**	40.4	58.1	None
Residence	5	--**	37.9	57.4	None
Residence	6	--**	37.2	57.1	None
* Was not measured in the field					

Source: Noise Report

VRPA Technologies established existing traffic noise levels based on previously collected traffic data (**Table 3.12-2**) and Traffic Noise Model (TNM) Version 2.5. TNM 2.5 is an FHWA Traffic Noise Prediction Program calculates both existing noise level and the maximum acceptable noise based on expected traffic growth. Locations of potential sensitive receptors are shown on **Figure 3.12-1**. Noise levels were estimates at various receptors that will be affected by the proposed Project. As noted in the **Table 3.12-2**, the proposed Project will not result in noise impacts. No project specific impacts related to this checklist item will occur.

[16] Noise Study Report, VRPA Technologies, page 14

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.

When the project is added to the background or existing noise levels, an increase in noise level is expected to occur. **Table 3.12-3** shows that the sensitive receptors will experience an increase of no more than 3 L_{eq} dBA as a result of the proposed Project. Under Future Year conditions, none of the sensitive receptor locations in both the with and without Project scenarios exhibit predicted noise impacts that exceed Tulare County's Maximum Acceptable Ambient Noise Exposure for Various Land Uses. No cumulative impacts related to this checklist item will occur.

Table 3.12-3
Noise Impacts for Future Conditions

Receptor Type	Receptor Number	Year 2035 No Project Leq(h) dBA	Year 2035 Plus Project Noise Level Leq(h) dBA	Impact
Project Site	1	57.2	70.4	None
Agricultural Site	2	67.1	67.5	None
School Site	3	61.5	61.9	None
Residence	4	56.9	58.6	None
Residence	5	55.0	57.8	None
Residence	6	54.5	57.0	None

Source: Noise Report

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted earlier, no Project specific or cumulative impacts related to this checklist item will occur.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Project Impact Analysis: ***Less than Significant Impact***

Typical outdoor sources of perceptible ground borne vibration consists of construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be

transient, random, or continuous. The proposed Project will consist of composting, and anaerobic digester, and a natural gas station. None of these elements will create significant vibration during operations. Although some vibration may occur during construction, any construction vibration will be temporary, short-term, and will not be perceptible by receptors outside the project site. Less than significant impacts Project specific impacts will occur.

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

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

Operations of the proposed Project will not result in any long-term vibration impacts. As such, cumulative impacts related to this checklist item will not occur.

Mitigation Measures:

None Required.

Conclusion: ***Less than Significant Impact***

As noted above, less than significant Project specific impacts related to this checklist item will occur and no cumulative impacts related to this checklist item will occur.

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 proposed Project site is set in a rural area, east of the City of Tulare. The site is predominately surrounded by agriculture, including row crops and a dairy. There are three residences near the Project site that will be located approximately 700 feet from the anaerobic digester. The Sundale Preschool and Elementary School is less than one (1) mile from the proposed site. The ambient noise environment in the vicinity of the proposed Project site is dominated by agricultural-related uses.

As noted above in the response to 3.12 a), the proposed Project will increase ambient noise levels; however, the increase in noise levels will not exceed Tulare County's Maximum Acceptable Ambient Noise Exposure for Various Land Uses. Therefore, less than significant Project specific impacts related to this checklist item will occur.

Cumulative Impact Analysis: ***Less than Significant Impact***

The geographic area of this cumulative analysis is 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 in the response to 3.12 a), the proposed Project will increase ambient noise levels; however, the increase in noise levels will not exceed Tulare County's Maximum Acceptable Ambient Noise Exposure for Various Land Uses. Therefore, less than significant cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***Less than Significant Impact***

As noted above, less than significant Project specific and cumulative impacts will occur.

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 noise will occur as the anaerobic digester and natural gas station is built. This construction noise will not involve pile drivers or other construction activities that will significantly impact off-site receptors.

In terms of periodic operational noise, composting operations will require equipment use. This equipment use was evaluated in the noise analysis and it was determined that noise levels will not exceed Tulare County Noise level Standards. As such, less than significant Project specific impacts will occur.

Cumulative Impact Analysis: ***Less than Significant Impact***

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

Temporary construction related noise will not have a cumulative impact unless significant temporary noise levels from multiple sources will occur at the same time. There are no projects that will significantly increase temporary noise levels in the vicinity of the Project site.

Periodic operational noise levels will increase; however, this increase will not exceed thresholds. In addition, cumulative periodic noise levels will not exceed threshold. Therefore, a less than significant impact related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***Less than Significant Impact***

As noted above, less than significant Project specific and cumulative impacts related to this checklist item will occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

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

The Visalia Municipal Airport is located approximately nine (9) miles northwest of the proposed Project site. Mefford Field (in the City of Tulare) is located approximately six (6) miles southwest of the proposed Project site. The Project site is located far enough away from these airports that exposure to airport noise is not an issue. No Project specific impacts related to this checklist item will occur.

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

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 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 2 miles of an airport. No cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted earlier, the proposed Project will not result in either Project specific or cumulative impacts related to this checklist item.

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***

The Project site is not near any known operating airstrips. Potential exposure to private airstrip noise is not an issue as there are no private airstrips near the Project site. No Project specific impacts related to this checklist item will occur.

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

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

As noted earlier, the Project site is not located near a private airstrip. No cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted earlier, the proposed Project will not result in either Project specific or cumulative impacts related to this checklist item.

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)."[17] 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."

[17] TCAG 2011 Regional Transportation Plan Draft Subsequent EIR, page 150

Attenuation
"Reduction in the level of sound resulting from absorption by the topography, the atmosphere, distance, barriers, and other factors.

A-weighted decibel (dBA)
A unit of measurement for noise based on a frequency weighting system that approximates the frequency response of the human ear.

Community Noise Equivalent Level (CNEL)
Used to characterize average sound levels over a 24-hour period, with weighting factors included for evening and nighttime sound levels. Leq values (equivalent sound levels measured over a 1-hour period - see below) for the evening period (7:00 p.m. to 10:00 p.m.) are increased by 5 dB, while Leq values for the nighttime period (10:00 p.m. to 7:00 a.m.) are increased by 10 dB. For a given set of sound measurements, the CNEL value will usually be about 1 dB higher than the Ldn value (see below). In practice, CNEL and Ldn are often used interchangeably.

Decibel (dBA)
A unit of measurement describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure (which is 20 micronewtons per square meter).

Day-Night Average Sound Level (Ldn)
Average sound exposure over a 24-hour period. Ldn values are calculated from hourly Leq values, with the Leq values for the nighttime period (10:00 p.m. to 7:00 a.m.) increased by 10 dB to reflect the greater disturbance potential from nighttime noises."
Equivalent Sound Level (Leq).
The level of a steady-state sound that, in a stated time period and at a stated location, has the same sound energy as the time-varying sound (approximately equal to the average sound level). The equivalent sound level measured over a 1-hour period is called the hourly Leq or Leq (h).

Lmax and Lmin
The maximum and minimum sound levels, respectively, recorded during a measurement period. When a sound meter is set to the "slow" response setting, as is typical for most community noise measurements, the Lmax and Lmin values are the maximum and minimum levels recorded typically for 1-second periods.

Percentile-Exceeded Sound Level (Lx)
The sound level exceeded during a given percentage of a measurement period. Examples include L10, L50, and L90. L10 is the A-weighted sound level that is exceeded 10% of the measurement period, L50 is the level exceeded 50% of the period, and so on. L50 is the median sound level measured during the measurement period. L90, the sound level exceeded 90% of the time, excludes high localized sound levels produced by nearby sources such as single car passages or bird chirps. L90 is often used to represent the background sound level. L50 is also used to provide a less conservative assessment of the background sound level.

Sensitive Receptors

Sensitive receptors are defined to include residential areas, hospitals, convalescent homes and facilities, schools, and other similar land uses."[18]

[18] General Plan Background Report, pages 8-46 to 8-47

REFERENCES

Tulare County 2030 General Plan, August 2012

Tulare County General Plan Background Report, February 2010

TCAG 2011 Regional Transportation Plan Draft Subsequent Environmental Impact Report, April 30, 2010

Noise Study Report , VRPA Technologies, Inc., November 30, 2012

2012 CEQA Guidelines

Federal Highway Administration website, Traffic Noise Model, http://www.fhwa.dot.gov/environment/noise/traffic_noise_model/

Population and Housing
Chapter 3.13

SUMMARY OF FINDINGS

The proposed Project will result in less than significant impacts to Population and Housing. No mitigation measures will be required. 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 Population and Housing. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

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

[1] 2012 CEQA Guidelines, Section 15126.2 (a)

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

- 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 Pacific Slope… Within the confines of Tulare County are now 4,863 square miles, or 3,158,400 acres."[2]

The Tulare County Region has three (3) sub-regional Housing Market Areas. These three areas are described below:

***Visalia/Farmersville/Exeter/Sequoia Park/Dinuba/Cutler/Orosi Market Area*:**

"Located in northern Tulare County and encompassing Census Tracts 1 through 20. Several cities are located within this market area including Dinuba, Exeter, Farmersville, Visalia (the County's largest City), and Woodlake. Visalia is the only city within the entire County with two regional shopping centers. A number of unincorporated communities are located within this market area including: Cutler, East Orosi, Orosi, Sultana, Traver, Goshen, West Goshen, Ivanhoe, Lemon Cove, Three Rivers, and other Valley and Sierra Communities. It should be noted that Woodlake and Farmersville are highly defined sub-market areas within this Market Area. These communities have high farmworker households, low median income, and high unemployment rates within Tulare County. The geographic boundary of this market area extends to the Tulare County line in the north, west and east, and generally extends to Avenue 256 in the south."[3]

Tulare/Southwest Tulare County Market Area:

"Located in central Tulare County, this Market Area encompasses Census Tracts 21 through 24, 29 through 32, and 42 through 44. The only incorporated city in this Market Area is Tulare, the second largest city in the County. A number of unincorporated cities are also located in this Market Area and include: Tipton, Pixley, Earlimart, and other Valley Communities. Most economic interaction with communities in this market area

[2] Tulare County Regional Blueprint, page 4 to 5
[3] Final Tulare County 2008 Regional Housing Needs Assessment Plan, page II-2

primarily occurs between the City of Delano located just south of the Tulare/Kern County Line and the City of Visalia to the north. The geographic boundary of this market area extends generally along Avenue 256, the County line to the west and to the south, and along Rd. 192/Rd. 176/Rd. 208/SR 65 to the east."[4]

Lindsay/Strathmore/Porterville/Foothills/Southeast Tulare County Market Area:

"Located in southeast Tulare County, this Market Area encompasses Census Tracts 25 through 28, 33 through 41, and 45. Most economic interaction in this Market Area occurs between the unincorporated communities and the Cities of Lindsay and Porterville. The unincorporated communities in this Market Area include: Strathmore, Cairns Corner, Ducor, Terra Bella, the Tule Indian Reservation, and other Valley and Sierra Communities. The geographic boundary of this market area extends along Avenue 256 to the north, Rd. 192/Rd. 176/Rd. 208/SR 65 to the west, and the County line to the south and east."[5]

According to the Tulare County Regional Housing Needs Plan, the number of household in Tulare County's was estimated as 110,356 in 2000. In 2007 the number of households was estimated as 125,836. The 2014 household Projection is estimated as 159,514.

Table 3.13-1
Tulare County Population

	1980	1990	2000	2008
Tulare County's Population	245,738	311,921	368,021	435,254

Source: 1980, 1990, 2000 U.S. Census, State of California, Department of Finance, E-1 Population Estimates.

"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."[6]

"Housing costs continue to rise significantly. Since 2000, the median rent has increased 40.9 percent from $516 to $727. The monthly owner costs for housing units with a mortgage have seen an even larger escalation going from $943 to $1,518 which is a 61 percent increase. The monthly owner costs for those housing units without a mortgage increased by 31 percent, going from $251 to $330."[7]

[4] Final Tulare County 2008 Regional Housing Needs Assessment Plan, page II-2
[5] Ibid., page II-4
[6] 2009 Housing Element, page 36
[7] Ibid., page 41

As noted in the Tulare County 2008 Regional Housing Needs Assessment Plan, "[t]he RHNA Plan recommends that the County provide land use and zoning for approximately 938 units per year in the unincorporated portions of the County. This augmented number was due to the high allocation of housing given to the incorporated cites mainly as a result of the amount of annexations carried out by incorporated cites. The County administratively agreed to increase its housing share to 7,035 units (938 units per year over the 7 1⁄2 year RHNA planning period) to alleviate member jurisdictions concerns over high housing numbers within the incorporated cities."[8]

"The County has made significant progress in meeting the quantifiable goals and Projected needs from the 2003 Housing Element… The 7.5-year time frame included a construction boom. The 2002 Regional Housing Needs Plan indicated a housing need of 2,250 units within the unincorporated area; overall growth was much greater than the Projected need."[9]

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."[10]

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."[11] "In 1977, the State 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."[12]

[8] 2009 Housing Element, page 10
[9] Ibid., page 101
[10] HUD Website, http://portal.hud.gov/hudportal/HUD?src=/about/mission
[11] HCD website, http://www.hcd.ca.gov/mission.html
[12] 2009 Housing Element, page 3 to 4

California Relocation Assistance Act

The State of California adopted the California Relocation Assistance Act (*California Government Code* §7260 et seq.) in 1970. This State law, which follows the federal Uniform Relocation Assistance and Real Property Acquisition Act, requires public agencies to provide procedural protections and benefits when they displace businesses, homeowners, and tenants in the process of implementing public programs and Projects. This State law calls for fair, uniform, and equitable treatment of all affected persons through the provision of relocation benefits and assistance to minimize the hardship of displacement on the affected persons.

Local Policy & Regulations

Tulare County 2008 Regional Housing Needs Assessment Plan

"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. Tulare County has no control over the countywide population and housing Projections provided to TCAG when it prepared the Regional Housing Needs Assessment Plan."[13]

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.

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

[13] Tulare County 2009 Housing Element, page 10

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."[14]

2009-2014 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 3.11
Support and coordinate with local economic development programs to encourage a "jobs to housing balance" throughout the unincorporated area.

IMPACT EVALUATION

Will 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: ***No Impact***

The proposed Project does not include new homes. As part of the proposed expansion, the number of employees will increase the staff from 7 to 12. This increase in the size of this existing business will not induce population growth because of the relative size of the growth. In addition, the Project site is located in a rural area and this increase in the size of this business will not induce nearby parcels to either increase new homes or create new businesses. No Project specific impacts related to this checklist item will occur.

[14] 2009 Housing Element, page 112

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 proposed Project will not result in any project specific impacts, no cumulative impacts will occur as well. As such, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts related to this checklist item will occur.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

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

There is no housing located on the Project site and no housing will be displaced as a result of the proposed Project. No Project specific impacts related to this checklist item will occur.

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

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

As noted above, there is no existing housing on the Project site and the proposed Project will not displace any housing units. No cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts related to this checklist item will occur.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

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

The proposed Project does not include the conversion of housing. As such, no Project specific impacts related to this checklist item will occur.

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

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

The proposed Project will not convert housing on-site or off-site. As such, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts related to this checklist item will occur.

REFERENCES

Tulare County 2030 General Plan, August 2012

Tulare County 2009 Housing Element Update, May 2012

HUD Website: http://portal.hud.gov/hudportal/HUD?src=/about/mission

HCD Website, http://www.hcd.ca.gov/mission.html

Final Tulare County 2008 Regional Housing Needs Assessment Plan, Tulare County Association of Governments, July 2008

2012 CEQA Guidelines

Tulare County Regional Blueprint, TCAG, May 2009

Public Services
Chapter 3.14

SUMMARY OF FINDINGS

The proposed Project will result in less than significant impacts related to Public Services with mitigation. 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 Recreation. As required in Section 15126, all phases of the proposed Project will 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.

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.

- Impact Fire Services
- Impact Police Services
- Impact Schools
- Impact Parks
- Impact Other Public Facilities

ENVIRONMENTAL SETTING

Fire Protection

"The [former] California Department of Forestry and Fire Protection/Tulare County Fire Department (now CalFire/TCFD) serve 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 Fire Station #25 is located at 2082 Foster Drive in Tulare and is approximately four miles from the proposed Project Site. The City of Tulare has three Fire Stations located within approximately five miles of the proposed Project site.[3]

> Fire Station 61 is located at 800 S. Blackstone St. in the southeast side of Tulare. Housed at this station is our 2000 E-ONE 75HP Ladder Truck, 1999 Central States HME Engine, and 2003 F550 chassis Patrol. Station one is staffed by 1-Captain, 2-Engineer and 2-Firefighter/Paramedics. Last Year station 61 responded to 82 fire calls, 1,201 medical aids and 513 other service and non-emergent calls for a total o 1,796 in their first response district. This Station is located approximately four miles to the southwest of the proposed Project site.
>
> Fire Station 62 is located at 138 N. "E" St. servicing Tulare's "Westside", the city's busiest District. Housed at this station is our 2005 E-ONE Engine and 1986 Pierce Suburban Reserve Brush Engine. Station 62 is staffed by 1-Captain,1-Engineer, and 1 Firefighter/Paramedic. Last Year station 62 responded to 92 fire calls, 1,353 medical aids and 645 other service calls and non-emergent calls for a total of 2,090 in their first response district. This Station is located approximately five miles to the southwest of the proposed Project site.
>
> Fire Station 63 located at 2900 N. "M" St., opened in 2004 servicing Tulare's northeast side. Housed at this station is our 2003 E-ONE Engine and 1996 Central States HME reserve engine. Station 63 is staffed with 1-Captain, 1-Engineer and 1-Firefighter/Paramedic. This station also houses the on-duty Battalion Chief, responsible

[1] General Plan Background Report, page 7-73
[2] Ibid., page 7-74
[3] Ibid.

for overseeing the safety of the citizens after hours and on weekends. Last year station 63 responded to 30 fire calls, 744 medical aids and 526 other service calls and non-emergent calls. This Station is located approximately four miles to the southwest of the proposed Project site.

Police Protection

"In 2007, the Tulare County Sheriff's Department currently had 448 sworn officers serving its unincorporated population (145,128), and generates a level of service ratio of 3.2 officers per 1,000 residents. The ratio is above the accepted standard of 2.0 officers per 1,000 residents set by the Federal Bureau of Investigation. The Sheriff's Department also has 186 non-sworn clerical and support staff amounting to a total Sheriffs 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]

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."[6]

"Total enrolment in Tulare County public schools has increased from about 80,000 to 88,300 students during a nine-year span from 1993 to 2002. On average, the growth rate has remained steady with annual increases approximating two percent."[7]

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. A list of these local park facilities is provided in **Table 3.14-1**.

Table 3.14-1
Recreational Areas in Tulare County

ID	Recreation Area	Location	Acres	Type of Use/Features
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	127.5	Reservations for picnic areas are taken. Entrance fee for vehicles.

[4] General Plan Background Report, pages 7-71 and 7-72
[5] Ibid.
[6] Ibid., pages 7-75 and 7-76
[7] Ibid., page 7-76

ID	Recreation Area	Location	Acres	Type of Use/Features
		North Drive.		
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 South Visalia.	143	Reservations for picnic areas are taken. Paddle boats, playground, baseball diamonds. Home of the End Trail statue. One of the largest oak woodlands in Tulare County. Location of the Agriculture and Farm Labor Museum.
10	Pixley Park	1 mile NE of Pixley on Road 124.	22	Reservations for picnic areas are taken. No fee.
11	Tulare County Museum	In Mooney Grove Park, South Visalia.	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.

Source: General Plan Background Report

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."[8]

Table 3.14-2
Tulare County Libraries

Branch	Address	Service Hours (2003)
Alpaugh	3816 Avenue 54 Alpaugh, CA 93201-0069	Tuesday: 10 am - 1pm, 2 pm - 6 pm Wednesday: 10 am - 1 pm, 2 pm – 6 pm
Dinuba	150 South I Street Dinuba, CA 93618-2399	Tuesday: 11 am - 5 pm, 6 pm - 8 pm Wednesday: 9 am - 1 pm, 2 pm - 6 pm Thursday: 11 am - 5 pm, 6 pm - 8 pm Friday: 9 am - 1 pm, 2 pm -6 pm
Earlimart	780 East Washington Earlimart, CA 93219-2153	Tuesday: 10 am -1 pm, 2 pm - 6 pm Wednesday: 10 am - 1 pm, 2 pm - 6 pm Thursday: 10 am - 1 pm, 2 pm - 6 pm Friday: 10 am - 1, 2 pm - 6 pm
Exeter	230 East Chestnut Exeter, CA 93221-1712	Tuesday: 11 am -5 pm; 6 pm - 8 pm Wednesday: 11 pm - 5 pm, 6 pm - 8 pm Thursday: 9 am - 1 pm; 2 pm - 6 pm Friday: 9 am - 1 pm; 2 pm - 6pm
Ivanhoe	15964 Heather Ivanhoe, CA 93235-1253	Wednesday: 10 am - 1 pm, 2 pm - 6 pm Thursday: 10 am - 1 pm, 2 pm - 6 pm

[8]General Plan Background Report, page 7-96

Branch	Address	Service Hours (2003)
Lindsay	165 North Gale Hill Street Lindsay, CA 93247-2507	Tuesday: 11 pm - 5 pm; 6 pm - 8 pm Wednesday: 9 am - 1 pm; 2 pm - 6 pm Thursday: 11 am - 5 pm; 6 pm - 8 pm Friday: 9 am - 1 pm; 2 pm - 6 pm
Cutler-Orosi	12646 Avenue 416 Orosi, CA 93647-2018	Wednesday: 9 am - 1 pm, 2 pm - 6 pm Thursday: 9 am - 1 pm, 2 pm - 6 pm Friday: 9 am -1 pm, 2 pm - 6 pm
Pixley	300 North School Pixley, CA 93256-1011	Tuesday: 9:30 am - 8 pm Wednesday : 9:30am - 5 pm Thursday: 9:30 am - 8 pm Friday: 9:30 am - 3:30 pm Saturday: 10 am - 2 pm
Springville	35800 Highway 190 Springville, CA 93265-0257	Thursday: 11 am - 5 pm , 6 pm - 8 pm Friday: 9 am - 1 pm , 2 pm - 6 pm Saturday: 9 am - 1 pm, 2 pm - 5 pm
Strathmore	19646 Road 230 Strathmore, CA 93267-0595	Tuesday: 9 am - 1 pm, 2 pm - 6 pm Wednesday: 9 am - 1 pm, 2 pm - 6 pm
Terra Bella	23825 Avenue 92 Terra Bella, CA 93270-0442	Monday – Friday: 8:30 am - 2:30 pm
Three Rivers	42052 Eggers Drive 216 Three Rivers, CA 93271-0216	Wednesday: 10 pm - 1 pm, 2 pm - 6 pm Thursday: 12 pm - 1 pm, 6 pm - 8 pm Friday: 10 am - 1 pm, 2 pm - 6 pm
Tipton	301 East Woods Avenue Tipton, CA 93272-0039	Thursday: 9 am - 1 pm, 2 pm - 6 pm Friday: 9 am - 1 pm, 2 pm - 6 pm
Visalia	Main Branch 200 West Oak Avenue Visalia, CA 93291-4993	Tuesday: 9 am - 8 pm Wednesday: 9 am - 8 pm Thursday: 9 am - 8 pm Friday: 12 pm - 6 pm Saturday: 9 am - 5 pm
Woodlake	400 West Whitney Woodlake, CA 93286-1298	Wednesday: 9 am - 1 pm, 2 pm - 6 pm Thursday: 9 am - 1 pm, 2 pm - 6 pm Friday: 9 am - 1 pm, 2 pm - 6 pm

Library hours current as of February 2010
Source: General Plan Background Report

REGULATORY SETTING

Federal Agencies & Regulations

None that apply to the proposed Project.

State Agencies & Regulations

None that apply to the proposed Project.

Local Policy & Regulations

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

PFS-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.

Table 3.14-3
Fire Staffing and Reponses 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 safety commence an initial attach within 2 minutes, 90% of the time. (FF = Fire Fighters)
Source: Tulare County 2030 General Plan

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.

PFS-7.12 Design Features for Crime Prevention and Reduction
The County shall promote the use of building and site design features as means for crime prevention and reduction.

PFS-8.1 Work with Local School Districts
The County shall work with local school districts to develop solutions for overcrowded schools and financial constraints of constructing new facilities.

PFS-8.4 Library Facilities and Services
The County shall encourage expansion of library facilities and services as necessary to meet the needs (e.g., internet access, meeting rooms, etc.) of future population growth.

IMPACT EVALUATION

a) With 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 with Mitigation***

The Project will continue to be served by the Tulare County Fire Department. The added digester component adds flare and a CNG gas station but does not result in a substantial adverse affect to fire protection facilities or capabilities. The County of Tulare Fire Department has 28 stations that are located throughout the County within its most densely populated areas and currently maintains minimal staffing to meet the requirements set forth under NFPA 1720-1721 for a rural area. These requirements consist of one full-time person per station per shift with other paid on-call firefighters. Per the Tulare County Fire Department while this is sufficient to meet the basic needs of the County, this level of staffing often results in an elevated fire loss value during some emergency conditions when compared with other departments with additional staff support. In addition to the need for additional staff, some facilities need repairs, replacements, or relocations. Currently, relocations are planned for the South Visalia and Alpaugh fire stations. Additional fire stations in need of relocation included West Olive, Tulare, and Dinuba fire stations. The County of Tulare Fire Department currently has one station located near the proposed Project site (TC GPBR, 2010). Therefore, Project specific impacts related to this checklist item may occur.

Cumulative Impact Analysis: ***Less than Significant Impact***

The geographic area of this cumulative analysis is Tulare County. This cumulative analysis is based on the information provided in the Tulare County 2030 General Plan, General Plan background Report, and/or Tulare County 2030 General Plan EIR. The proposed Project will

not significantly impact Tulare County Fire Department's response times. Therefore, less than significant cumulative impacts related to this checklist item may occur.

Mitigation Measures:

3.14-1 **Applicant shall provide an all weather access road to the site and any buildings affected by the Special Use Permit.**

3.14-2 **Applicant shall submit plans for any new construction, remodeling, alterations, or building additions. All new construction shall meet 2007 Building Code, Fire Code, Mechanical Code, Electric Code and Plumbing Code, as applicable.**

3.14-3 **If proposed use constitutes a change of occupancy, the existing building(s) affected by the change of occupancy and the Special Use Permit shall comply with 2007 Building and Fire Codes and other adopted standards.**

3.14-4 **The Tulare County Fire Department shall be notified of the proposed start date of any processing, storage, or special use granted and mitigated prior to initiation of any building operations.**

3.14-5 **Violations of any of these conditions will result in Tulare County Fire Department's rescission of approval of the Special Use Permit.**

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

With the above mentioned mitigation measures, the Project specific impacts related to this checklist item will be reduced to a level considered less than significant. No cumulative impacts related to this checklist item will occur.

Police protection?

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

The County of Tulare Sheriff's Office will continue to provide police protection services to the proposed Project site upon development. Emergency response is adequate to the proposed Project site. No residential construction is proposed for this site. There will be no impact to police services.

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

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

As noted earlier, the proposed Project will not impact Police Services. As such, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None required.

Conclusion: ***No Impact***

As noted earlier, no Project specific or cumulative impacts related to this checklist item will occur.

Schools?

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

There are a number of schools located in the Tulare area with the nearest, Sundale Preschool and Elementary School, located less than one mile southeast of the proposed Project site.

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 proposed Project will not impact Schools. As such, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted earlier, no Project specific or cumulative impacts related to this checklist item will occur.

Parks?

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

Local parks within the City of Tulare are the nearest to the proposed Project site. Del Lago Park is located approximately 2.9 miles to the west of the site, while Cutler Park and Mooney Grove Park are located approximately three (15) miles from the Project site. The Project will

not add employees or interfere with the use of these parks during operations or construction. Therefore, there will not be an impact on any parks.

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 proposed Project will not impact Recreational Services. As such, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted earlier, no Project specific or cumulative impacts related to this checklist item will occur.

Other public facilities?

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

Other public facilities include water/waste water treatment plants, libraries and solid waste disposal facilities.

Although the Project will add potential construction debris at the Visalia or Teapot Dome Landfills, ultimately, the proposed Project will improve operations at solid waste disposal facilities through increased diversion of solid waste from landfills. Therefore, the Project will result in a public benefit to the environment.

The proposed Project is not connected to a sewer line and the on-site office will continue to rely on an existing septic disposal system. Therefore, the proposed Project will not impact service levels of a wastewater treatment facility.

The proposed Project does not involve the creation of new residences. Therefore, the Project will not result in specific impacts related to this checklist item.

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

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

As noted earlier, the proposed Project will not impact other public facilities. As such, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted earlier, no Project specific or cumulative impacts related to this checklist item will occur.

REFERENCES

Tulare County 2030 General Plan, August 2012

Tulare County 2030 General Plan Background Report, February 2010

2012 CEQA Guidelines

Recreation
Chapter 3.15

SUMMARY OF FINDINGS

The proposed Project will result in less than significant impacts related to Recreation. No mitigation measures will be required. 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 Recreation. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in Section 15126.2 (a), "[a]n EIR shall identify and focus on the significant environmental effects of the proposed project. In assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision 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 Recreational Resources in the County. The regulatory setting provides a description of applicable Federal, State and Local regulatory

[1] 2012 CEQA Guidelines, Section 15126.2 (a)

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.

- 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.

Federal Recreation Areas

Lake Kaweah

"Lake Kaweah was formed after the construction of the Terminus Dam on the Kaweah River in 1962. The lake offers many recreational opportunities including fishing, camping, and boating. Lake Kaweah is located 20 miles east of Visalia on Highway 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

[2] General Plan Background Report, page 4-1
[3] Ibid., page 4-7

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
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.

<u>*Sequoia National Forest*</u>

"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

[4] General Plan Background Report, page 4-7
[5] Ibid., page 4-8

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 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]

Table 3.15-2
Recreational Areas in Tulare County

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.

[6] General Plan Background Report, page 4-9
[7] Ibid., page 4-9
[8] Ibid., page 4-9

ID	Recreation Area	Location	Acres	Type of Use/Features
8	Ledbetter Park	1 mile northwest of Cutler on Road 124/Hwy 63	11	Reservations for picnic areas are taken. No fee.
9	Mooney Grove Park	2 Miles south of Caldwell Avenue on Mooney Blvd. In South Visalia.	143	Reservations for picnic areas are taken. Paddle boats, playground, baseball diamonds. Home of the End Trail statue. One of the largest oak woodlands in Tulare County. Location of the Agriculture and Farm Labor Museum.
10	Pixley Park	1 mile NE of Pixley on Road 124.	22	Reservations for picnic areas are taken. No fee.
11	Tulare County Museum	In Mooney Grove Park, South Visalia.	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.
State				
14	Colonel Allensworth State Historic Park	7 miles west of Earlimart on County Road J22.	na	15 campsites, open year round.
15	Mountain Home State Forest	Located in Sequoia National Forest	na	No reservations taken for campgrounds.
Federal				
16	Lake Kaweah	25 miles east of Visalia on Highway 198.	2,558	Horse Creek Campground, boat ramps, picnic areas, swimming, and hiking.
17	Lake Success	10 miles SE of Porterville on Highway 198.	2,450	Tule Campground, boating, fishing, picnic areas, playgrounds, and softball field. Hunting is permitted in the Wildlife Management Area.
18	Sequoia National Forest	Southeastern portion of Tulare County.	na	Campgrounds include Gray's Meadow, Oak Creek, Onion Valley, Stony Creek, Sunset, and Whitney Portal with over 300 campsites.
19	Giant Sequoia National Monument	Covers areas north and south of Sequoia and Kings Canyon National Parks.	na	
20	Sequoia and Kings Canyon National Parks (SEKI)	Northeastern portion of Tulare County.	na	Campgrounds include Atwell Mill Campground, Buckeye Flat, Cold Springs, Crystal Springs, Dorst Campground, Lodgepole, Moraine, Potwisha, Sheep Creek, and South Fork with over 800 campsites.
Total Acres				**5,701**

Source: Tulare County Resource Management Agency, Parks and Recreation Branch, 2008; Automobile Club of Southern California, Tulare County Map.

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]

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] The City of Tulare has several small parks and recreational areas with the nearest to the Project site being Blain Park which is located approximately 4 miles west of the Project site.[13]

REGULATORY SETTING

The following environmental regulatory settings were summarized, in part, from information contained in the *Tulare County General Plan 2010 Background Report*.

Federal Agencies & Regulations

United States National Park Service (NPS)

"The National Park Service (NPS) is a bureau of the U.S. Department of the Interior. The NPS manages the 397 units of the National Park System. The NPS also helps administer dozens of affiliated sites, the National Register of Historic Places, National Heritage Areas, National Wild

[9] Tulare County 2030 General Plan Re-circulated RDEIR, page 4-3
[10] Ibid., page 4-7
[11] Ibid., page 3.9-32
[12] Ibid., page 3.9-29
[13] Ibid., page 3.9-29

and Scenic Rivers, National Historic Landmarks, and National Trails."[14]

State Agencies & Regulations

California Department of Parks and Recreation

"California Department of Parks and Recreation manages more than 270 park units, which contain the finest and most diverse collection of natural, cultural, and recreational resources to be found within California. These treasures are as diverse as California: From the last stands of primeval redwood forests to vast expanses of fragile desert; from the lofty Sierra Nevada to the broad sandy beaches of our southern coast; and from the opulence of Hearst Castle to the vestiges of colonial Russia. California State Parks contains the largest and most diverse natural and cultural heritage holdings of any state agency in the nation. State park units include underwater preserves, reserves, and parks; redwood, rhododendron, and wildlife reserves; state beaches, recreation areas, wilderness areas, and reservoirs; state historic parks, historic homes, Spanish era adobe buildings, including museums, visitor centers, cultural reserves, and preserves; as well as lighthouses, ghost towns, waterslides, conference centers, and off-highway vehicle parks. These parks protect and preserve an unparalleled collection of culturally and environmentally sensitive structures and habitats, threatened plant and animal species, ancient Native American sites, historic structures and artifacts . . . the best of California's natural and cultural history."[15]

Local Policy & Regulations

ERM-5.2 Park Amenities
The County shall provide a broad range of active and passive recreational opportunities within community parks. When possible, this should include active sports fields and facilities, community center/recreation buildings, children's play areas, multi-use areas and trails, sitting areas, and other specialized uses as appropriate.

ERM-5.3 Park Dedication Requirements
The County shall require the dedication of land and/or payment of fees, in accordance with local authority and State law (for example the Quimby Act), to ensure funding for the acquisition and development of public recreation facilities.

ERM-5.5 Collocated Facilities
The County shall encourage the development of parks near public facilities such as schools, community halls, libraries, museums, prehistoric sites, and open space areas and shall encourage joint-use agreements whenever possible.

[14] National Park Service Overview Brochure, Updated May, 2011
[15] California Dept. of Parks and Recreation, http://www.parks.ca.gov/?page_id=91

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: ***Less than Significant 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. Although the proposed Project will result in increase of 5 employees, the Project site is not located near a park or recreational facility. The Project is located approximately 0.13 miles northwest of Sundale Elementary School, which includes a school yard. The proposed Project will not impact the school yard.

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 Project does not include housing nor the accompanying growth of persons. The proposed Project will result in an increase of 5 employees, which will not significantly increase the use of parks or recreational facilities. As such less than significant cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***Less than Significant Impact***

As noted above, less than significant Project specific or cumulative impacts related to this checklist item will occur.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

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

The proposed Project does not include new recreational facilities or the expansion of recreational facilities. As such, no Project specific impacts related to this checklist item will occur.

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

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

As noted earlier, the proposed Project does not include new recreational facilities or the expansion of recreational facilities. As such, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted earlier, no Project specific or cumulative impacts related to this checklist item will occur.

REFERENCES

Tulare County 2030 General Plan, August 2012

Tulare County 2030 General Plan Background Report, February 2010

Tulare County 2030 General Plan, Recirculated Draft Environmental Impact Report (RDEIR), February 2010

2012 CEQA Guidelines

National Park Service Overview Brochure, Updated May, 2011

California Dept. of Parks and Recreation, http://www.parks.ca.gov/?page_id=91

Transportation/Traffic
Chapter 3.16

SUMMARY OF FINDINGS

The proposed Project will not have any significant impacts related to Transportation and Traffic. No mitigation measures will be required. 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 Transportation and Traffic. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

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

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

[1] 2012 CEQA Guidelines, Section 15126.2 (a)

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

"Tulare County has two major regional highways, State Highway 99 and 198. State Highway 99 connects Tulare County to Fresno and Sacramento to the north and Bakersfield to the south. State Highway 198 connects from U.S. Highway 101 on the west and continues eastward to Tulare County, passing through the City of Visalia and into Sequoia National Park. The highway system in the County also includes State highways, County-maintained roads, and local streets within each of the eight cities."[2]

"Tulare County's transportation system is composed of several State Routes, including three freeways, multiple highways, as well as numerous county and city routes. The county's public transit system also includes two common carriers (Greyhound and Orange Belt Stages), the AMTRAK Service Link, other local agency transit and paratransit services, general aviation, limited passenger air service and freight rail service."[3]

"Some prominent county roadways include, but are not limited to, Alta Avenue (Road 80), Caldwell Avenue/Visalia Road (Avenue 280), Demaree Road/Hillman Street (Road 108), Tulare Avenue (Avenue 232), Olive Avenue (Avenue 152), Spruce Road (Road 204), El Monte Way (Avenue 416), Paige Avenue (Avenue 216), Farmersville Boulevard (Road 164), Road 192, and Road 152. Additionally, the highway system includes numerous county-maintained local roads, as well as local streets and highways within each of the eight cities and several unincorporated

[2] Tulare County 2030 General Plan, page 13-2
[3] General Plan Background Report, page 5-4

communities."[4]

"Travel within Tulare County is a function of the size and spatial distribution of its population, economic activity, and the relationship to other major activity centers within the Central Valley (such as Fresno and Bakersfield) as well as more distant urban centers such as Los Angeles, Sacramento, and the Bay Area. In addition, there is considerable travel between the northwest portions of Tulare County and southern Fresno County and travel to/from Kings County to the west. Due to the interrelationship between urban and rural activities (employment, housing, services, etc.) and the low average density/ intensity of land uses, the private automobile is the dominant mode of travel for residents in Tulare County."[5]

"According to the 2005 HCM, 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). Interrupted flow facilities have fixed elements that cause an interruption in the flow of traffic such as stop signs, signalized intersections, and arterial roads (Transportation Research Board). The difference between uninterrupted flow and interrupted LOS is defined in the following summary."[6]

Table 3.16-1
Uninterrupted Traffic Flow Facilities LOS

LOS A	Represents free flow. Individual vehicles are virtually unaffected by the presence of others in the traffic stream.
LOS B	Is in the range of stable flow, but the presence of other vehicles in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
LOS C	Is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual vehicles becomes significantly affected by interactions with others vehicles in the traffic stream.
LOS D	Is a crowded segment of roadway with a large number of vehicles restricting mobility and a stable flow. Speed and freedom to maneuver are severely restricted and the driver experiences a generally poor level of comfort and convenience.
LOS E	Represents operating conditions at or near level capacity. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
LOS F	Is used to define forced or breakdown flow (stop and go gridlock). This condition exists wherever the amount of traffic approaches a point where the amount of traffic exceeds the amount that can travel to a destination. Operations within queues are characterized by stop and go waves and they are extremely unstable.

Source: 2011 Regional Transportation Plan, Tulare County Association of Governments

Table 3.16-2
Interrupted Traffic Flow Facilities LOS

LOS A	Describes operations with average intersection stopped delay of ten seconds or less (how long a driver must wait at a signal before the vehicle can begin moving again).
LOS B	Describes operations with average intersection stopped delay in the range of 10.0 to 20.0 seconds per vehicle, and with reasonably unimpeded operations between intersections.

[4] General Plan Background Report, page 5-7
[5] General Plan Background Report, page 5-4
[6] 2011 TCAG Regional Transportation Plan, page 3-17

LOS C	Describes operations with higher average stopped delays at intersections (in the range of 20.0 to 35.0 seconds per vehicle). Stable operations between locations may be more restricted due to the ability to maneuver and change lanes at mid-block locations can be more restrictive then LOS B. Further, longer queues and/or adverse signal coordination may contribute to lower average speeds.
LOS D	Describes operations where the influence of delay is more noticeable (35.0 to 55.0 seconds per vehicle). Intersection stopped delay is longer and the range of travel speeds are about 40 percent below free flow speed. This is caused by inappropriate signal timing, high volumes and some combinations of these.
LOS E	Is characterized by significant approach stopped delay (55.0 to 80.0 seconds per vehicle), and average travel speeds of one-third the free flow speed or lower. These conditions are generally considered to represent the capacity of the intersection or arterial.
LOS F	Characterizes arterial flow at extremely low speeds, with high intersection stopped delay (greater than 80.0 seconds per vehicle). Poor progression, long cycle lengths and high traffic demand volumes may be major contributing factors to this condition. Traffic may be characterized by frequent stop-and-go conditions.

Source: 2011 Regional Transportation Plan, Tulare County Association of Governments

"Public transportation provides an economical and efficient alternative for getting people to work, school and other chosen destinations. In Tulare County, buses are the primary mode of public transportation. Public transportation also takes the form of shared ride taxi, automobile and vanpools; dial-a-ride, and specialized handicapped accessible services. In Tulare County, social service transportation is provided by the following: local transit agencies, demand responsive operators and city/county special programs for senior citizens, mental health organizations and disabled citizens programs. These programs are funded and subsidized through State and federal grants, Local Transportation Funds (LTF), State Transit Assistance Funds (STAF), and local transportation sales tax revenues."[7]

Traffic

As it was anticipated that the proposed Project would generate more than 100 peak hour trips, it was determined that a traffic impact study was required. "The following criterion is a starting point in determining when a TIS is needed. When a project:

1. Generates over 100 peak hour trips assigned to a State highway facility
2. Generates 50 to 100 peak hour trips assigned to a State highway facility – and, affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS "C" or "D").
3. Generates 1 to 49 peak hour trips assigned to a State highway facility – the following are examples that may require a full TIS or some lesser analysis[4]:
    a. Affected State highway facilities experiencing significant delay; unstable or forced traffic flow conditions (LOS "E" or "F").
    b. The potential risk for a traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.).
    c. Change in local circulation networks that impact a State highway facility (i.e., direct access to State highway facility, a non-standard highway geometric design, etc.)."[8]

[7] 2011 TCAG Regional Transportation Plan, page 1-14
[8] Guide for the Preparation of Traffic Impact Studies, page 2

Airport

"There are nine public use airports in Tulare County. These include six publicly owned and operated facilities (Porterville Municipal, Sequoia Field, Tulare Municipal [Mefford Field], Visalia Municipal, Woodlake, and Harmon Field [currently closed]) and three privately owned and operated airports (Alta Airport [currently closed], Thunderhawk Field, and Eckert Field). Badger Field is under consideration for Federal Aviation Administration (FAA) recertification as a restricted private airfield (as of August 2006)."[9]

Design for Emergency Access

According to § 21060.3 and § 15359 of the CEQA Guidelines, an "Emergency" means a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services. "Emergency" includes such occurrences as fire, flood, earthquake, or other soil or geologic movements, as well as such occurrences as riot, accident, or sabotage. A Proposed Project could potentially generate impacts through inadequate design for emergency access.

Alternative Transportation

"TCAT has been providing rural route service between various cities and towns in Tulare County since 1981. TCAT retains MV Transportation to provide all of its transit services, which includes fixed route and demand responsive services for inter-city and intra-city service in many small communities throughout the County. TCAT is the most extensive transit system in Tulare County and connects with Dinuba Area Regional Transit (DART), Visalia City Coach (VCC), Tulare InterModal Express (TIME), Porterville City Operated Local Transit (COLT), Kings Area Rural Transit (KART), Kern Regional Transit, Orange Belt and Greyhound bus."[10]

REGULATORY SETTING

Federal Agencies & Regulations

None that apply to the proposed Project.

State Agencies & Regulations

Caltrans: Transportation Concept Reports

Caltrans has prepared a number concept reports for State Routes, Interstate Routes, and US Routes for each District. Tulare County is located in Caltrans District 6. The concept reports that apply the Proposed Project include SR 63 and SR 201.

[9] Tulare County 2030 General Plan, page 13-2
[10] 2011 TCAG Regional Transportation Plan, page 1-14

Caltrans Guide for the Preparation of Traffic Impact Studies

"The California Department of Transportation (Caltrans) has developed this "Guide for the Preparation of Traffic Impact Studies" in response to a survey of cities and counties in California. The purpose of that survey was to improve the Caltrans local development review process (also known as the Intergovernmental Review/California Environmental Quality Act or IGR/CEQA process). The survey indicated that approximately 30 percent of the respondents were not aware of what Caltrans required in a traffic impact study (TIS)."[11]

Local Policy & Regulations

Tulare County Transportation Control Measures (TCM)

"Transportation Control Measures (TCM) are designed to reduce vehicle miles traveled, vehicle idling, and/or traffic congestion in order to reduce vehicle emissions. Currently, Tulare County is a nonattainment region under the Federal Clean Air Act (CAA) and the California Clean Air Act (CCAA). Both of these acts require implementation of TCMs. These TCMs for Tulare County are as follows:

- Rideshare Programs;
- Park and Ride Lots;
- Alternate Work Schedules;
- Bicycle Facilities;
- Public Transit;
- Traffic Flow Improvement; and
- Passenger Rail and Support Facilities."[12]

Tulare County Association of Governments (TCAG)

"…[W]ith the passage of Assembly Bill (AB) 69 State law has required the preparation of Regional Transportation Plans (RTPs) to address transportation issues and assist local and state decision makers in shaping California's transportation infrastructure."[13] The Tulare County Association of Government has prepared the 2011 Regional Transportation Plan. Specific policies that apply to the Proposed Project are listed as follows:

TRANSPORTATION SYSTEM MANAGEMENT (TSM) Policy 5
Support installation of adequate left and right turning pockets to allow increased storage, as necessary.

TRANSPORTATION SYSTEM MANAGEMENT (TSM) Policy 6
Encourage improvements in design of signalized intersections to improve turning for large vehicles and circulation flow.

[11] Guide for the Preparation of Traffic Impact Studies, page ii
[12] Tulare County 2030 General Plan RDEIR, page 3.2-2
[13] 2011 TCAG Regional Transportation Plan, page 1-11

Tulare County General Plan Policies

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

TC-1.14 Roadway Facilities
As part of the development review process, new development shall be conditioned to fund, through impact fees, tonnage fees, and/or other mechanism, the construction and maintenance of roadway facilities impacted by the project. As projects or locations warrant, construction or payment of pro-rata fees for planned road facilities may also be required as a condition of approval.

TC-1.15 Traffic Impact Study
The County shall require an analysis of traffic impacts for land development projects that may generate increased traffic on County roads. Typically, applicants of projects generating over 100 peak hour trips per day or where LOS "D" or worse occurs, will be required to prepare and submit this study. The traffic impact study will include impacts from all vehicles, including truck traffic.

TC-1.16 County Level Of Service (LOS) Standards
The County shall strive to develop and manage its roadway system (both segments and intersections) to meet a LOS of "D" or better in accordance with the LOS definitions established by the Highway Capacity Manual.

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: ***Less than Significant Impact***

"The Harvest-Tulare Anaerobic Digester and Compressed Natural Gas Facility as proposed will add a high solids anaerobic digestion facility and Compressed Natural Gas (CNG) refueling station to Harvest-Power California, LLC's existing Harvest-Tulare composting operations. The facility has been operational since 1996 and currently holds all operational permits to compost green material, food, and dairy manure. The proposed Project will

include a dry anaerobic digestion facility on the same footprint as the existing composting facility and a CNG fueling station to produce and dispense CNG for sale on an adjacent parcel controlled by Harvest Power. The proposed Project site plan is shown in Figure 2. The trip generation and trip distribution data used in the various Project analyses are described and quantified below.

The facility would utilize approximately two (2) acres of the 35 acre footprint in the southern portion of the facility. The process converts the feedstock through high solids anaerobic digestion into biomethane, or renewable natural gas. The project will increase the total annual tonnage processed at the site from 86,000 tons per year to 216,000 tons per year. This increase includes both the proposed anaerobic digester and upgrading tonnages at the composting facility."[14]

The Existing intersection lane configurations and peak hour traffic volumes were analyzed for existing levels of service. **Table 3.16-3** shows the existing levels of service for the study intersections respectively. The signalized intersection levels of service shown in **Table 3.16-3** are representative of the whole intersection, individual intersection movements are shown for the 2-way stop controlled locations.

Table 3.16-3
Existing Conditions - Levels Of Service

	AM Peak Hour		PM Peak Hour	
Intersection	**LOS**	**Delay[1]**	**LOS**	**Delay[1]**
Lovers Lane at SR 137	A	8.5	A	8.6
Lovers Lane at Road 240				
Northbound Approach	A	7.8	A	7.8
Southbound Approach	A	7.6	A	7.7
Westbound Approach	B	11.7	B	12.1
Eastbound Approach	B	11.3	B	12.5
Lovers Lane at Project Driveway				
Northbound Approach	A	7.8	A	7.7
Southbound Approach	A	7.6	A	7.8
Westbound Approach	A	9.5	B	11.2
Eastbound Approach	A	9.8	B	10.7
Lovers Lane at Road 248				
Northbound Approach	A	7.7	A	7.8
Southbound Approach	A	7.6	A	7.8
Westbound Approach	B	11.1	B	12.7
Eastbound Approach	A	9.9	B	13.4

1 delay in seconds per vehicle
Source: Traffic Study

Table 3.16-4 shows the Existing Plus the Project levels of service analysis for the study intersections. The signalized intersection levels of service shown in **Table 3.16-4** are representative of the whole intersection, individual intersection movements are shown for the 2-way stop controlled locations.

[14] Traffic Impact Study, TPG Consulting, page 11

Table 3.16-4
Existing Conditions PLUS Project - Levels Of Service

	AM Peak Hour		PM Peak Hour	
Intersection	**LOS**	**Delay[1]**	**LOS**	**Delay[1]**
Lovers Lane at SR 137	A	9.4	A	9.4
Lovers Lane at Road 240				
Northbound Approach	A	7.8	A	7.8
Southbound Approach	A	7.6	A	7.7
Westbound Approach	B	11.7	B	12.1
Eastbound Approach	B	11.3	B	12.5
Lovers Lane at Project Driveway				
Northbound Approach	A	7.7	A	7.7
Southbound Approach	A	7.6	A	7.8
Westbound Approach	A	9.4	B	11.3
Eastbound Approach	A	10.0	B	10.8
Lovers Lane at Road 248				
Northbound Approach	A	7.6	A	7.8
Southbound Approach	A	7.6	A	7.8
Westbound Approach	B	10.9	B	12.8
Eastbound Approach	A	9.8	B	13.4

[1] *delay in seconds per vehicle*
Source: Traffic Study

"In the latest updated traffic study, and based on the total tonnage in the project discription, it was found that there was a slight reduction in trucks per day from the July, 2012 study. The total yield dropped from 19 new peak hour trips to 18 new peak hour trips to the Project site. Therefore, it can be reasonably concluded that since the overall peak hour trips is only 18 additional trips, the resulting levels of service at the study intersections will also operate well above the threshold of significance established by both the County of Tulare or Caltrans."[15]

Cumulative Impact Analysis: ***Less than Significant Impact***

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

All study area intersections are projected to operate well above the adopted County or Caltrans level of service standards with the additional traffic expected from the Harvest-Tulare Project in future conditions (See **Table 3.16-5**). As such, less than significant impacts related to this checklist item will occur.

[15] Updated Harvest Power Traffic Study, March 5, 2013

Table 3.16-5
2035 Conditions WITH the Harvest-Tulare Project - Levels Of Service

	AM Peak Hour		PM Peak Hour	
Intersection	**LOS**	**Delay[1]**	**LOS**	**Delay[1]**
Lovers Lane at SR 137	B	10.8	B	11.6
Lovers Lane at Road 240				
Northbound Approach	A	8.0	A	7.9
Southbound Approach	A	7.8	A	7.9
Westbound Approach	B	12.2	B	12.0
Eastbound Approach	B	13.3	B	13.6
Lovers Lane at Project Driveway				
Northbound Approach	A	8.0	A	7.9
Southbound Approach	A	7.9	A	8.0
Westbound Approach	B	11.3	B	12.9
Eastbound Approach	B	12.4	B	12.7
Lovers Lane at Road 248				
Northbound Approach	A	8.0	A	7.9
Southbound Approach	A	7.9	A	8.0
Westbound Approach	B	12.8	B	12.6
Eastbound Approach	B	13.7	B	14.2

1 delay in seconds per vehicle
Source: Traffic Study

Mitigation Measures:

None Required.

Conclusion: ***Less then Significant Impact***

As noted earlier, less than significant Project specific and cumulative impacts related to this checklist item will occur.

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***

As noted in the response to Checklist item 3.16 a), no significant impacts to levels of service will occur. The proposed Project will not impact any other congestion management standard. As such, 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 intersections outlined in the traffic report. This cumulative analysis is based on the information provided in the Tulare County

2030 General Plan, General Plan background Report, Tulare County 2030 General Plan EIR, and the traffic report.

As noted in the response to 3.16 a), the proposed Project will not impact level of service in future conditions. Less than significant cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

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

As noted earlier, less than significant Project specific and cumulative impacts related to this checklist item will occur.

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 Visalia Municipal Airport is located approximately nine (9) miles northwest of the proposed Project site. Mefford Field (in theCity of Tulare) is located approximately six (6) miles southwest of the proposed Project site. In addition, the proposed Project will not affect air traffic patterns. No Project specific impacts related to this checklist item will occur.

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

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

The proposed Project will have no Project specific impacts and thus will not contribute to any cumulative impacts related to this checklist.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts related to this checklist item will occur.

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 proposed Project includes new paving and all weather surfaces for trucks to deliver material to the anaerobic digester. The truck routing alignment does not include sharp curves. As such no Project specific impacts related to this checklist item will occur.

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

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

As noted earlier, no significant design changes that will cause a hazard are proposed. As such, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts related to this checklist item will occur.

e) Result in inadequate emergency access?

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

The Project site is currently has access and egress via the main entrance off Road 148, and has a second emergency point of access off of Road 248 along the Tulare Colony Ditch. As a result of the number and size of access to the Project site, the Proposed Project will not create any impacts related to this checklist item.

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

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

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts related to this checklist item will occur.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

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

The proposed Project does involve changes to public transit, bicycle facilities or pedestrian facilities. The Project site is accessible from Avenue 240 and Road 140. There are no existing or proposed bike lanes along either of these streets. The proposed Project is located more than a mile from the nearest bus route (Tulare County, Route 40), which travels along State Route 137. As such no Project specific impacts related to this checklist item will occur.

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

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

As the proposed Project will not result in Project specific impacts, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts related to this checklist item will occur.

DEFINITIONS/ACRONYMS

Acronyms

(AWSC)	All-Way Stop-Controlled
(HCM)	Highway Capacity Manual
(LOS)	Level of Service
(TWSC)	Two-Way Stop-Controlled

REFERENCES

Tulare County 2030 General Plan, August 2012

Tulare County General Plan Background Report, February 2010

Traffic Impact Study, Harvest-Tulare Anaerobic Digester and Compressed Natural Gas Facility, TPG Consulting. November 2012.

TPG Updated Traffic Study Letter to Harvest Power, February 28, 2013

Guide for the Preparation of Traffic Impact Studies, California Department of Transportation (Caltrans), December 2002

2011 Regional Transportation Plan, Tulare County Association of Governments (TCAG), July 11, 2012

2010 Tulare County Regional Bicycle Transportation Plan, Tulare County Association of Governments (TCAG)

2012 CEQA Guidelines

Tulare County 2030 General Plan, Recirculated Draft Environmental Impact Report (RDEIR), February 2010

Utilities and Service Systems
Chapter 3.17

SUMMARY OF FINDINGS

The proposed Project will result in less than significant impacts to Utilities and Service Systems with mitigation. 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 Utilities and Service Systems. As required in Section 15126, all phases of the proposed Project will be considered as part of the potential environmental impact.

As noted in Section 15126.2 (a), "[a]n EIR shall identify and focus on the significant environmental effects of the proposed Project. In assessing the impact of a proposed Project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area as they exist at the time the notice of preparation is published, or where no notice of preparation is published, at the time environmental analysis is commenced. Direct and indirect significant effects of the Project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. The discussion should include relevant specifics of the area, the resources involved, physical changes, alterations to ecological systems, and changes induced in population distribution, population concentration, the human use of the land (including commercial and residential development), health and safety problems caused by the physical changes, and other aspects of the resource base such as water, historical resources, scenic quality, and public services. The EIR shall also analyze any significant environmental effects the Project might cause by bringing development and people into the area affected. For example, an EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision 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 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, the Tulare County General Plan Background Report and/or the Tulare

[1] 2012 CEQA Guidelines, Section 15126.2 (a)

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

- 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 Gas Company is the primary provider of natural gas throughout the County."[3]

The proposed Project requires a solid waste facility permit from Tulare County Environmental Health Division. A "Solid Waste Facility includes a solid waste transfer or processing station, a composting facility, a transformation facility, and a disposal facility. Section 40194 of the PRC (Definitions)"[4]

On August 28, 2012, the Board of Supervisors approved the closure of the Earlimart, Balance Rock, Badger, and Kennedy Meadows Waste Transfer Stations was reduced but not closed.

[2] Tulare County 2030 General Plan, page 14-3
[3] Ibid., page 14-3
[4] CalRecycle website, http://www.calrecycle.ca.gov/swfacilities/Permitting/permittype/FullPermit/

Although, it was determined that there is sufficient capacity in the landfills, expansion of other transfer stations throughout Tulare County is desirable.

REGULATORY SETTING

Federal Agencies & Regulations

Resource Conservation and Recovery Act (RCRA)

Congress passed RCRA on October 21, 1976 to address the increasing problems the nation faced from our growing volume of municipal and industrial waste. RCRA, which amended the Solid Waste Disposal Act of 1965, set national goals for:

- Protecting human health and the environment from the potential hazards of waste disposal.
- Conserving energy and natural resources.
- Reducing the amount of waste generated.
- Ensuring that wastes are managed in an environmentally-sound manner
- To achieve these goals, RCRA established three distinct, yet interrelated, programs:
- The solid waste program, under RCRA Subtitle D, encourages states to develop comprehensive plans to manage nonhazardous industrial solid waste and municipal solid waste, sets criteria for municipal solid waste landfills and other solid waste disposal facilities, and prohibits the open dumping of solid waste.
- The hazardous waste program, under RCRA Subtitle C, establishes a system for controlling hazardous waste from the time it is generated until its ultimate disposal — in effect, from "cradle to grave."
- The underground storage tank (UST) program, under RCRA Subtitle I, regulates underground storage tanks containing hazardous substances and petroleum products. RCRA banned all open dumping of waste, encouraged source reduction and recycling, and promoted the safe disposal of municipal waste. RCRA also mandated strict controls over the treatment, storage, and disposal of hazardous waste.

State Agencies & Regulations

California Global Warming Solutions Act of 2006 (AB 32)

With the passage of AB 32, the California Air Resources Board was required to adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions levels in 1990 to be achieved by 2020. To achieve this requirement, a Scoping Plan was adopted in 2008 that includes high recycling and zero waste as a way to reduce greenhouse gas emissions from landfills. "As virgin raw materials are replaced with recyclables, a large reduction in energy consumption should be realized. Implementing programs with a systems approach that

focus on consumer demand, manufacturing, and movement of products will result in the reduction of greenhouse gas emissions and other co-benefits."[5]

Cal Recycle Full Solid Waste Facility Permit

"Public Resources Code (PRC), Sections 44001 and 44002, state that:

- "...no person shall operate a solid waste facility without a solid waste facilities permit..."
- "...any person who proposes to become an operator of a solid waste facility shall file with the enforcement agency having jurisdiction over the facility, or the board if there is no designated and certified enforcement agency, an application for a solid waste facilities permit..."

"Solid Waste Facility" includes a solid waste transfer or processing station, a composting facility, a transformation facility, and a disposal facility. Section 40194 of the PRC (Definitions) The following types of facilities are currently required to obtain a full solid waste facilities permit prior to commencing operations:

- Solid waste landfills
- All compost facilities with feedstock other than green material (Title 14, Section 17854)
- Green Material Composting Facilities with more than 12,500 cubic yards of feedstock, compost, or chipped and ground material on-site at any one time (Title 14, Section 17857.1)
- Chipping and Grinding Operations handling more than 500 tons per day (Title 14, Section 17862.1)
- Large volume transfer/processing facilities (Title 14, Section 17403.7) receiving 100 tons or more of solid waste per operating day.
- Transformation (a.k.a. "waste to energy" or "co-generation") means incineration, pyrolysis, distillation, or biological conversion of mixed municipal waste (including biosolids). "Transformation" does not include composting, gasification, or biomass conversion (PRC Section 40201).
- Certain large volume construction and demolition/inert debris facilities."[6]

Local Policy & Regulations

Tulare County General Plan Policies

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

PFS-2.1 Water Supply

The County shall work with agencies providing water service to ensure that there is an adequate quantity and quality of water for all uses, including water for fire protection, by, at a minimum,

[5] Climate Change Scoping Plan, page 62
[6] CalRecycle Website, http://www.calrecycle.ca.gov/swfacilities/Permitting/permittype/FullPermit/

requiring a demonstration by the agency providing water service of sufficient and reliable water supplies and water management measures for proposed urban development.

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-2.4 Water Connections
The County shall require all new development in UDBs, UABs, Community Plans, Hamlet Plans, Planned Communities, Corridor Areas, Area Plans, existing water district service areas, or zones of benefit, to connect to the community water system, where such system exists. The County may grant exceptions in extraordinary circumstances, but in these cases, the new development shall be required to connect to the water system when service becomes readily available.

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-3.2 Adequate Capacity
The County shall require development proposals to ensure the intensity and timing of growth is consistent with the availability of adequate wastewater treatment and disposal capacity.

PFS-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-4.2 Site Improvements
The County shall ensure that new development in UDBs, UABs, Community Plans, Hamlet Plans, Planned Communities, Corridor Areas, and Area Plans includes adequate stormwater drainage systems. This includes adequate capture, transport, and detention/retention of stormwater.

PFS-4.3 Development Requirements
The County shall encourage project designs that minimize drainage concentrations and impervious coverage, avoid floodplain areas, and where feasible, provide a natural watercourse appearance.

PFS-4.4 Stormwater Retention Facilities
The County shall require on-site detention/retention facilities and velocity reducers when necessary to maintain existing (pre-development) storm flows and velocities in natural drainage systems. The County shall encourage the multi-purpose design of these facilities to aid in active groundwater recharge.

PFS-4.5 Detention/Retention Basins Design
The County shall require that stormwater detention/retention basins be visually unobtrusive and provide a secondary use, such as recreation, when feasible.

PFS-4.7 NPDES Enforcement
The County shall continue to monitor and enforce provisions to control non-point source water pollution contained in the U.S. Environmental Protection Agency National Pollution Discharge Elimination System (NPDES) program.

PFS-5.1 Land Use Compatibility with Solid Waste Facilities
The County shall ensure that solid waste facility sites (for example, landfills) are protected from the encroachment by sensitive and/or incompatible land uses.

PFS-5.3 Solid Waste Reduction
The County shall promote the maximum feasible use of solid waste reduction, recycling, and composting of waste, strive to reduce commercial and industrial waste on an annual basis, and pursue financing mechanisms for solid waste reduction programs.

PFS-5.4 County Usage of Recycled Materials and Products
The County shall encourage all industries and government agencies in the County to use recycled materials and products where economically feasible.

PFS-5.8 Hazardous Waste Disposal Capabilities
The County shall require the proper disposal and recycling of hazardous materials in accordance with the County's Hazardous Waste Management Plan.

PFS-5.9 Agricultural Waste
The County shall investigate waste disposal and reuse needs for agricultural wastes for energy and other beneficial uses and shall change County plans accordingly.

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 with Mitigation***

Although the proposed Project consists of the construction and operation of an anaerobic digester and CNG facility, it will not include any facilities that will generate wastewater that will need to be treated at facility, nor will it require the construction of a new wastewater treatment facility or the expansion of existing wastewater treatment facilities. Since the proposed Project will not result in a change to facilities or operations at existing wastewater facilities servicing Harvest Power's existing composting facility, the Regional Water Quality Control Board's (RWQCB) wastewater treatment requirements will not be exceeded. In addition, the existing facility utilizes an on-site septic tank and leach field septic system for the office. According to the applicant, the existing septic system does not handle contact water generated from solid waste. Nonetheless, the facility may exceed wastewater treatment standards for composting facilities, dairy ponds and/or digesters, and may require a permit or updated permit from the RWQCB. Upon final adoption of the General Order for Composting the Project will also be subject to the General Order's Composting requirements. Upon receipt of RWQCB's determination, the proposed Project may be subject to RWQCB standards and may require a Report of Waste Discharge**.** Subsequently, the Project will result in a less than significant impact with the above noted mitigation.

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 Project will generate liquid digestate. All of the digestate will be either immediately mixed with the compost material or held and then used in the composting process. This amount of wastewater will not require an expansion of a wastewater facility. Less than significant cumulative impacts related to this checklist item will occur.

Mitigation Measures:

3.17-1 The Project shall comply with any conditions required by the RWQCB for wastewater treatment for on-site effluent treatment in lagoons or

tanks. RWQCB conditions shall be forwarded to the Tulare County Planning Branch and the Environmental Health and Human Services Agency for appropriate action.

3.17-2 The Project shall be required to obtain any applicable permit from the RWQCB as appropriate.

3.17-3 The Project shall include all facilities as specified by the RWQCB and/or the Tulare County Planning Branch and the Environmental Health and Human Services Agency.

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

With implementation of the Mitigation Measures noted earlier, the potential Project specific impacts related to this checklist item will be reduced to a level considered less than significant.

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 with Mitigation***

The proposed Project does not include the creation or expansion of a wastewater treatment facility. The impact will 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 proposed Project will not generate an increase in the amount of wastewater needing to be hauled or piped to a permitted wastewater treatment facility. No cumulative impacts will occur.

Mitigation Measures:

3.17-4 The applicant shall prepare a SWPPP prior to construction and keep it on site per the NPDES requirements.

Conclusion: ***No Impact***

As noted above, no Project specific or cumulative impacts related to this checklist item will occur.

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 with Mitigation***

The proposed Project will result in a new or an expansion of a local public storm water drainage facility. Storm water on the Project site is currently directed to one of two drainage detention basins. The digester design proposes the design and construction of a drainage swale. Sprinkler Irrigated Digestate effluent usage on the site will consist of using the liquid digestate on the compost piles during the dry months and will create insignificant runoff. Runoff from storm events will drain into a separate detention basin and not affect the manure detention pond. The runoff from the site will either evaporate or percolate in the basin; other on site runoff will be designed to percolate through the ground surface, and not be added to the manure waste water detention facility. All internal runoff created by facility operations will be contained on site and drainage patterns on the site will not be significantly altered during development. A retention ponding basin will be designed to collect runoff water from the proposed Project site. The existing topography on project site will also be modified to ensure that proposed Project water runoff is contained on site. Further, in order to prevent water and wind erosion during the construction period, a Storm Water Pollution Prevention Plan (SWPPP) will be developed for the proposed Project as required for all projects which disturb more than one acre in area. As part of the SWPPP, the applicant will be required to provide erosion control measures to protect the topsoil. Any stockpiled soils will be watered and/or covered to prevent loss due to wind erosion as part of the SWPPP during construction. As a result of these efforts, loss of topsoil and substantial soil erosion during the construction period are not anticipated. No new storm drainage facilities will be needed. The proposed and existing storm water facilities will require the approval of the public works department and environmental health in order to show that the Project's storm drainage facilities are sufficient to meet the storm water needs of the proposed Project.

Cumulative Impact Analysis: ***Less than Significant Impact with Mitigation***

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

The proposed Project will retain storm water on site. There are two foot berms designed around the perimeter of this facility and a new drainage swale is proposed. Currently, no storm drainage water currently leaves the site nor is it anticipated that design features of the

proposed expansion will result in Project-related storm drainage water leaving the site. As no offsite storm water impacts will occur, no cumulative impacts related to this checklist item will occur.

Mitigation Measures:

3.17-5 **The Project's drainage facilities and grading be designed to RWQCB, Tulare County Public Works, CalRecycle and Tulare County Environmental Health Standards and approved by a certified Professional Engineer. Certification shall indicate that the Project will accommodate 100 year, 24 hour storm events in accordance with the noted Agencies standards.**

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

As noted earlier, the Project will have significant specific or cumulative impacts related to this checklist item, if the Project were designed and built, without the drainage swale.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Project Impact Analysis: ***Less than Significant Impact***

Water supply for the proposed Project will come from an on site ground water well. As noted in groundwater extraction analysis (prepared by John Minney CE, GE) the proposed Project will result in the use of 1.3 feet of water per acre per year. As the average water use for crops is 3 feet of water per acre per year, the proposed Project will not increase water usage beyond the amount of water that will used by a conforming use outlined in the AE-40 Zoning District. A less than significant Project specific impact related to this checklist item will occur.

Cumulative Impact Analysis: ***Less than Significant Impact***

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

The expansion of the existing use requires the use of additional water; however, the proposed Project does not involve a Zone Change or General Plan amendment. The water usage for the existing Zoning and General Plan designations has been addressed in the General Plan EIR. Therefore the proposed Project will not contribute to a further cumulative water supply impact. Less than significant cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion:

As noted earlier, less than significant Project specific and cumulative impacts related to this checklist item will occur.

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: ***No Impact***

The proposed Project includes a new septic system. No connections to a wastewater treatment provider are proposed. No Project specific impacts related to this checklist item will occur.

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

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

The proposed Project includes a new septic system. No connections to a wastewater treatment provider are proposed. No cumulative impacts related to this checklist item will occur.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted earlier, no Project specific or cumulative impacts related to this checklist item will occur.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

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

The proposed Project includes expansion of the existing composting use and an anaerobic biodigester. Although the Project may use a local land fill during the construction phase, by diverting organic waste from landfills the proposed Project will have a net beneficial impact related solid waste disposal capacity. No Project specific impacts related to this checklist item will occur.

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

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

The proposed Project will reduce materials going directly to landfills. The proposed Project will have a cumulative benefit related to this checklist item as it will reduce the amount of waste sent to landfills.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

As noted earlier, no Project specific or cumulative impacts related to this checklist item will occur.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Project Impact Analysis: ***Less than Significant Impact with Mitigation***

As part of the objectives, the proposed Project is intended to comply with the California Global Warming Solutions Act of 2006 (AB 32). As noted in the Scoping Plan for AB 32, recycling, composting, and the diversion of solid waste from landfills is outlined as actions to that will assist achieving the California Air Resources Board target of 1990 levels of greenhouse gas emissions. The benefits from the project in diverting green waste and fat, oil and grease from the typical waste stream is a net benefit to the County.

The Project currently complies with all Solid Waste Regulations. The proposed expansion will increase the tonnage of material to be composted from 156,000 tpy to 216,000 tpy. The Project currently has a Solid Waste Facility Permit SWFP, including a Cal Recycle approved

Report of Compost Site Information (RCSI) and a Odor Impact Management Plan (OIMP). The existing SWFP will be revised for the added composting. The digester will require an additional RCSI and OIMP and the SWFP revised for the Anaerobic Digester.

The anaerobic digester has been reviewed by Tulare County Environmental Health Division, which provided recommendations that apply to anaerobic digester equipment. These recommendations are listed as mitigation measures.

With implementation of the following mitigation measures, the proposed Project will result in less than significant Project specific impacts related to this checklist item.

Cumulative Impact Analysis: ***Less than Significant Impact with Mitigation***

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

The proposed Project will not result in any Project specific impacts and will not contribute to any cumulative impacts.

Mitigation Measures:

3.17-6 **The applicant shall obtain an updated Solid Waste Facility Permit (SWFP) per CCR, Title 27, Section 21570. A SWFP must be obtained prior to the issuance of building permits, the commencement of the additional composting, and the construction of the anaerobic digestion facility.**

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

With mitigation, less than significant Project specific and cumulative impacts related to this checklist item will occur.

REFERENCES

Tulare County 2030 General Plan, August 2012

Climate Change Scoping Plan, California Air Resources Board for the State of California, December 2008

EPA's Summary of the Resource Conservation and Recovery Act
http://www.epa.gov/epawaste/laws-regs/rcrahistory.htm

2012 CEQA Guidelines

Cal Recycle website,
http://www.calrecycle.ca.gov/swfacilities/Permitting/permittype/FullPermit/

Mandatory Findings of Significance
Chapter 3.18

SUMMARY OF FINDINGS

The direct impacts from the Project's potential odor emissions and odor impacts to sensitive receptors are insignificant. Combined with the adjacent dairy's odors, the cumulative impacts from this Project will impact nearby humans resulting in a Mandatory Finding of Significance, which is significant and unavoidable. The remaining cumulative impacts associated with the Project are discussed in Section 4. The analyses contained in this environmental document demonstrate that there are no other impacts that will substantially degrade the quality of the environment, or impact sensitive species, or have significant cultural impacts requiring a mandatory finding of significance.

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 affects associated with construction and operation of the proposed Project, including direct, indirect, and cumulative impacts in the following resource areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- 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 4.4 (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. of this document. Thresholds of Significance for impacts to cultural resources, including impacts to historic and prehistoric resources, are addressed in Chapter 3.5 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]

"The project site is located in a region of California having a Mediterranean climate. Summers are dry and typically quite warm with daytime temperatures commonly exceeding 100° Fahrenheit. Winters are rainy and cool with daytime temperatures rarely exceeding 65o 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. Stormwater infiltrates onsite soils and, when field capacity is reached, surface runoff is collected in the onsite drainage basin" [2]

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,

[1] General Plan Background Report, page 1-2
[2] Live Oak Associates, Biological Report, page 4

white-tailed kites (Elanus leucurus), herons, western meadowlark (Sturnella neglecta) and California quail (Callipepla californica).[3]

REGULATORY SETTING

Federal Agencies & Regulations

See Chapters 3.4 and 3.5 of this document for federal regulations related to biological and cultural resources.

State Agencies & Regulations

See Chapters 3.4 and 3.5 of this document for state regulations related to biological and cultural resources.

Local Policy & Regulations

See Chapters 3.4 and 3.5 of this document for local regulations related to biological and cultural resources.

[3] General Plan Background Report, page 9-10

IMPACT EVALUATION

Will the project:

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?

Findings, Impacts to Biological Resources

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

Chapter 3.4, Biological Resources, addresses potential impacts to biological resources. A biological analysis of the Project site conducted by Live Oaks Associates concluded that the site is an intensely disturbed landscape devoid of natural habitat, wetlands, foraging areas, or movement corridors thus eliminating the potential for impacts to biological species. Therefore, no mitigation measures are required. Specific conclusions were as follows:

- There will be no loss of habitat or direct impact to special status animals will occur; therefore, no mitigations are warranted (3.4-a).
- There are no impacts to riparian or other sensitive habitats on or adjacent to the project site; therefore no mitigation measures are required (3.4-b)
- No federally protected wetlands on site. There are no project-related impacts and therefore no mitigation measures are required (3.4-c).
- The project will not result in harmful effects on regional fish or wildlife movements. Therefore, no mitigation measures are needed (3.4-d).
- There are no impacts to biological resources, and therefore there is no conflict with local policies or ordinances designed to protect biological resources (3.4-e).

Cumulative Impact Analysis: ***No 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, there will be no cumulative impacts related to biological resources.

Mitigation Measures:

None Required.

Conclusion: ***No Impact***

No impact to biological resources would result from the proposed Project. No Mitigation Measures for biological resources are required.

Findings, Impacts to Cultural Resources

Project Impact Analysis: ***Less than Significant Impact with Mitigation***

Chapter 3.5, Cultural Resources, discusses impacts to historic or prehistoric resources in depth. No significant cultural resources were identified within ½ mile of the Project site as a result of a records search conducted by the Southern San Joaquin Valley Information Center, or by a field survey of the site performed by a qualified professional archaeologist (Kristina Roper, November 2012). However, mitigation measures 3.5-1, 3.5-2, and 3.5-3 are included to address the potential of cultural resources being unearthed as a result of Project-related ground excavation. In addition, mitigation measures were added in the unlikely event that human remains are unearthed during Project-related ground excavation.

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. As the proposed Project would be mitigated to a level considered less than significant, cumulative impacts would also be considered less than significant with mitigation.

Mitigation Measures:

See mitigation measures 3.5-1, 3.5-2, and 3.5-3.

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

With implementation of the above mentioned mitigation measure(s), potential project specific and cumulative impacts related to this checklist item will be reduced level considered 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***

"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]

Cumulative impacts for biological and cultural resources are discussed within Chapters 3.4 and 3.5, respectively.

Conclusion for Cumulative Impacts to Biological Resources (Chapter 3.4): ***No Impact***

There are no project related or cumulative impacts, and therefore no mitigation measures are required.

Conclusion for Cumulative Impacts to Cultural Resources (Chapter 3.5): ***Less than Significant Impact with Mitigation***

With implementation of mitigation measures 3.5-1, 3.5-2 and 3.5-3, potential project specific and cumulative impacts related to this checklist item will be reduced level considered less than significant.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Project Impact Analysis: ***Less than Significant Impact***

The Project will not directly result in significant environmental effects to the listed resources above, which will cause substantial adverse effects on human beings, either directly or

[4] Tulare County 2030 General Plan RDEIR, pages 5-3 to 5-4

indirectly. The Project will not generate any emissions that exceed the Air District's air quality thresholds of significance. The existing operations on the Project site currently results in composting facility odors that are mitigated by the Odor Impact Management Plan as required by CalRecycle.

In the Air District's comment letter to the Notice of Preparation (Nov. 1, 2012), indicated that the Project should be evaluated "to determine the likelihood that the Project may result in nuisance odors. According to the Air District, nuisance odors are subjective; as such the Air District does not have established thresholds of significance for nuisance odors. Nuisance odors may be assessed qualitatively taking into consideration the project design elements and proximity to off-site receptors that potentially will be exposed [to] objectionable odors."[5]

The Air District's Guide to Assessing and Mitigating Air Quality Impacts (GAMAQI) states that an evaluation "should be conducted for both of the following situations: 1) a potential source of objectionable odors is proposed for a location near existing sensitive receptors, and 2) sensitive receptors are proposed to be located near an existing source of objectionable odors."[6] The criteria for this evaluation are based on the Lead Agency's determination of the proximity between the proposed project and the sensitive receptors. The Air District identifies a sensitive receptor as a location where human populations, especially children, senior citizens and sick persons, are present; and where there is a reasonable expectation of continuous human exposure to pollutants, according to the averaging period for ambient air quality standards (i.e., the 24-hour, 8-hour, or 1-hour standards). It should be noted; however, that commercial and industrial sources are not considered sensitive receptors. As shown in **Table 3.18-1**, there are sensitive receptors that are within a two mile radius to the Project site which could potentially be affected by odors.

"Additionally, TCCB [Harvest Power] currently operates under an Odor Impact Mitigation Plan (OIMP) to comply with the CalRecycle Full Composting Facility permit. The OIMP focuses on processes to prevent odor from migrating off site during the feedstock delivery, composting and curing phases and the protocol to deal with odor issues if they do arise. The processes include mixing any food materials with green materials immediately upon arrival at the site, and incorporating them into the compost windrows as soon as possible, within a maximum of 36 hours. Watering and turning regimes increase the temperature and speed of the breakdown of the material in the windrows, diminishing odor. A specific protocol for neighbor notification and response to neighbor issues is also included in the OIMP. The anaerobic digestion facility is designed with a biofilter to ensure that no offensive odor migrates off site.

Therefore, based on the predicted emissions from the project and the OIMP, the project is not anticipated to have a significant impact on any known sensitive receptor."[7]

[5] SJVAPCD Comment Letter to NOP, Nov. 1, 2012 (See Appendix A)
[6] SJVAPCD Guide to Assessing and Mitigating Air Quality Impacts, page 50
[7] Air Quality Impact Analysis, page 28

Based on the emissions impacts expected, the proposed project is not expected to affect sensitive receptors. As noted earlier, sensitive receptors are defined as areas where young children, chronically ill individuals, the elderly or people who are more sensitive than the general population reside. Schools, hospitals, nursing homes and daycare centers are locations where sensitive receptors will likely reside. Sensitive receptors less than one-mile from the project site are listed in **Table 3.18-1**.

Table 3.18-1
Sensitive Receptors Located ≤ 6 Miles from Project

Receptor	Type of Facility	Distance from Project (miles)	Direction from Project
Sundale Elementary School	Public K-8	0.51	SE
Sundale Preschool	Preschool	0.51	SE

Source: Air Quality Impact Analysis

Additionally, Harvest Power currently operates under an Odor Impact Mitigation Plan (OIMP) to comply with their CalRecycle Full Composting Facility permit. The OIMP focuses on processes to prevent odor from migrating off site during the feedstock delivery, composting and curing phases, and the protocol to abate odor should it occur. The processes include mixing any food materials with green materials immediately upon arrival at the site, and incorporating them into the compost windrows as soon as possible, within a maximum of 36 hours. Watering and turning regimes increase the temperature and speed of the breakdown of the material in the windrows, diminishing odor. A specific protocol for neighbor notification and response to neighbor concerns is also included. The anaerobic digestion facility is designed with a bio-filter to eliminate the potential for odor to migrate off site.

Therefore, based on the estimated emissions from the Project and the OIMP, the Project is not anticipated to have significant impacts on any known sensitive receptors.

Cumulative Impact Analysis: ***Significant and Unavoidable 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 odors that are currently emitted from composting facilities are considered significant. The potential odors from this facility plus odors from other sources (such as an adjacent dairy) are cumulatively unavoidable despite implementation of an OIMP as required by CalRecycle at the facility. To date, Harvest Power has complied with the OIMP and CalRecycle's Local Enforcement Agency has not issued any violations or compliance orders for the facility. However; when combined, the odors generated by the existing dairy and the Project may cumulatively result in a nuisance. As a result of this impact being unavoidable, even with the implementation of Mitigation Measures, the public benefits of the project (such as benefits to air quality,

conversion of waste materials to re-useable energy, and reduction of waste streams to local landfills) outweigh this isolated impact to the environment.

Mitigation Measures:

3.18-1 Update the Odor Impact Management Plan required by Cal Recycle at the facility to maintain its effectiveness with the Project's increase in the tonnage processed and differing digestion material.

Conclusion: ***Significant and Unavoidable Impact***

The Project's direct odor impacts are insignificant, and do not directly impact sensitive receptors. However, the Project (and the adjacent dairy) odor emissions will cumulatively add to a potentially significant and unavoidable impact to any neighboring uses, including the school even with an OIMP in place.

DEFINITIONS/ACRONYMS

Definitions

See Chapters 3.4 and 3.5 of this document for definitions related to biological and cultural resources.

Acronyms

(GAMAQI)	Air District's Guide to Assessing and Mitigating Air Quality Impacts
(OIMP)	Odor Impact Mitigation Plan

See Chapters 3.4 and 3.5 of this document for acronyms related to biological and cultural resources.

REFERENCES

Tulare County 2030 General Plan, August 2012

Tulare County 2030 General Plan: Recirculated Draft EIR, February 2010

Harvest Power Air Quality Impact Analysis, September 2012

SJVAPCD Comment Letter to NOP, November 2012

Hartesveldt, David and Gurule, Jeff, Live Oaks Associates, Inc., "Harvest Power Tulare Project: Biological Evaluation, Tulare County, California, November 2012

2012 CEQA Guidelines

Summary of Cumulative Impacts
Chapter 4

CUMULATIVE IMPACTS ANALYSIS UNDER CEQA

Section 15355 Cumulative Impacts
"Cumulative impacts" refers 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
"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 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."[2]

[1] 2012 CEQA Guidelines, Section 15355
[2] Ibid., Section 15130 (a)

"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 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."[3]

"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."[4]

[3] 2012 CEQA Guidelines, Section 15130 (b)
[4] 2012 CEQA Guidelines, Section 15130 (c)

"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 areawide cumulative impacts of the proposed project have already been adequately addressed, as defined in section 15152(f), in a certified EIR for that plan."[5]

"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)."[6]

PAST, PRESENT, PROBABLE FUTURE PROJECTS

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 project location is outside incorporated areas and would be consistent with the goal of separating urban boundaries.[7]

Tulare County General Plan Update 2030

The Cumulative Analysis outlined in the Tulare County General Plan Update 2030 Recirculated Draft EIR notes regional population growth (which impart was developed by the Tulare County Association of Governments) and a number major projects. Regional population projections are provided in the table below.[8]

Table 4-1
Regional Population Projections and Planning Efforts

	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

[5] 2012 CEQA Guidelines, Section 15130 (d)
[6] Ibid., Section 15130 (e)
[7] TGAG Blueprint 2050, Preferred Scenario (2009)
[8] Tulare County General Plan 2030 Update Recirculated Draft EIR, page 5-4 to 5-5

			climate change-greenhouse gases.
City of Woodlake			Unavailable.
City of Visalia	1991-2020	165,000	Air quality; biological resources; land use conflicts; noise; transportation/traffic; mass transit; agricultural resources; water supply; and visual resources.
City of Tulare	2007-2030	134,910	Farmland conversion; aesthetics; water supply; traffic; air quality; global climate change; noise; flooding from levee or dam failure; biological resources; and cultural resources.
City of Farmersville	2002-2025	12,160	Agricultural resources; agricultural land use conflicts; air quality; and traffic circulation.
City of Exeter			Information unavailable at time of analysis.
City of Lindsay	1990-2010	17,500	Air quality and farmland land conversion.
City of Porterville	2006-2030	107,300	Farmland conversion; air quality; noise; and biological resources.
City of Kingsburg	1992-2012	16,740	Farmland conversion and air quality.
City of Delano	2005-2020	62,850	Air quality; noise; farmland conversion; disruption of agricultural production; and conversion of agricultural soils to non-agricultural use.
County of Fresno	2000-2020	1,113,790	Farmland conversion; reduction in agricultural production; cancellation of Williamson Act Contracts; traffic; transit; bicycle facilities; wastewater treatment facilities; storm drainage facilities; flooding; police protection; fire protection; emergency response services; park and recreation facilities; library services; public services; unidentified cultural resources; water supply; groundwater; water quality; biological resources; mineral resources; air quality; hazardous materials; noise; and visual quality.
County of Kern	2004-2020	1,142,000	Air quality; biological resources; noise; farmland conversion; and traffic.
County of Kings*	1993-2005	149,100 (low) 228,000 (high)	Biological resources; wildlife movement; and special status species.

* The adopted Kings County General Plan did not identify a projected population for 2005. The General Plan does include population projections for 2010, which is included in this table.

SOURCE: City of Delano, 1999; City of Dinuba, 2008; City of Farmersville, 2003; City of Kingsburg, 1992; City of Lindsay, 1989; City of Porterville, 2007; City of Visalia, 2001, 1991; County of Fresno, 2000; County of Kern, 2004; County of Kings, 2009; DOF, 2007; TCAG, 2008.

In addition to the Regional Growth Projections used for the cumulative impact analysis, the Tulare County General Plan Update 2030 Recirculated Draft EIR noted the following Major Projects

- **Goshen**: Status – GPI allowed to proceed. On March 29, 2006, the Tulare County Resource Management Agency convened a meeting with 30 property owners, land developers, services providers, and their representatives, having a development interest in Goshen. The purpose of the meeting was to "…discuss the potential for joint cooperation amongst the various developers and property owners to achieve a well planned community and to foster the spirit of cooperation" towards completion of the Community Plan update

and EIR. The proposed planning study area boundary would add approximately 3,277 acres to the existing Goshen UDB, as opposed to the Draft Goshen Community Plan UDB which adds 422 acres using a needs-based analysis patterned on historical growth trends extrapolated 20 years into the future. The revised boundary incorporates the GPI applicants' lands, the hamlet of West Goshen, and additional land to be held in reserve for future growth. The applicant's land excluding Mangano's "Westfield" totals 661 acres. The area is bounded in the north by Avenues 320 and 312, taking in West Goshen; in the west by Roads 52 and 56; in the south by State Hwy. 198; and in the east by Camp Road and Road 76 at the City of Visalia Sphere of Influence. This 'study' area will be the focus of technical analysis that will set a proposed Urban Development Boundary in which build-out will be contemplated for preparation of the new Goshen Community Plan, EIR and Infrastructure Master Plan. Since the study area involves lands not owned or controlled by the developers, the MOU agreement to be negotiated will contain a provision to reimburse the developers for expenses incurred when development authorized by the new plan occurs.

- **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 – GPI allowed to proceed January 2006. On September 9, 2005, the Tulare County Resource Management Agency received a request from the Earlimart Development Group, a land development partnership comprised of four business owners with interests in 1,491 acres of private property located both within and outside of the existing Earlimart Urban Development Boundary. The Group is seeking authorization to file an amendment to the Tulare County General Plan, specifically the Earlimart Community Plan (1988). In addition to an updated Community Plan, an Infrastructure Master Plan and Program EIR for the update will also be prepared. The applicants proposed that a 7,680 acre planning study area be established. The area is bounded in the

north by Avenue 68 (Deer Creek as a natural boundary), in the south by Avenue 36 (White River as a natural boundary), in the east by Road 144, and in the west by Road 120. This 'study' area will be the focus of technical analysis that will set the proposed Community Plan boundary for which the new Community Plan, EIR and Infrastructure Master Plan will be prepared. Since the study area involves lands not owned or controlled by the Development Group, the MOU agreement to be negotiated will contain a provision to reimburse the Development Group for expenses when development authorized by the new plan occurs. The Earlimart Development Group has indicated that they have contracts with the consulting firms of Hogle-Ireland, Inc., Provost & Pritchard Engineering Group, Inc. and TPG Consulting or other environmental consulting firm, to prepare the General Plan amendment. However, it is important that preparation of the EIR be managed by the County as Lead Agency for the project.

In addition to the Major Projects outlined in the Tulare County General Plan Update 2030 Recirculated Draft EIR, there are a number of other projects that may produce cumulative impacts. These projects are briefly described below.

- **Pena –** proposed 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).

- **Pixley Biogas -** The proposed 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.

- **South County Correctional Detention Facility in Porterville -** The proposed 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 proposed 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 proposed Project will also include support service components.

As the site is currently under agricultural production, the proposed 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.

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 the previous chapter and are not reiterated.

Unavoidable Impacts

There is only one significant and unavoidable impact and is under the mandatory finding of significance for substantial adverse effects by odors impacts on human beings indirectly though accumulation with other adjacent dairy odors.

Table 4-2
Checklist Items with Significant Unavoidable Impacts

Impact Section	Checklist Item #	Checklist Criteria
Mandatory	3.18	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Although, the odor in the cumulative may be significant, the Project provides other environmental benefits. The increased diversion of recyclable food, green, and manure solid waste to landfills, and the use of recycled material for compost and energy purposes is a goal of the State under the Integrated Waste Management Act (AB939), and the purpose of AB 939 is to "reduce, recycle, and reuse solid waste generated in the state to the maximum extent feasible."

Under General Plan Goal: PFS-5.3 Solid Waste Reduction - The County shall promote the maximum feasible use of solid waste reduction, recycling, and composting of wastes, strive to reduce commercial and industrial waste on an annual basis, and pursue financing mechanisms for solid waste reduction programs.

In addition under PFS-5.9 Agricultural Waste - The County shall investigate waste disposal and reuse needs for agricultural wastes for energy and other beneficial uses and shall change County plans accordingly.

Less than Significant Impacts with Mitigation

Table 4-3
Checklist Items with Less than Significant with Mitigation

Impact Section	Checklist Item #	Checklist Criteria
Aesthetics	3.1 c)	Substantially degrade the existing visual character or quality of the site and its surroundings?
Aesthetics	3.1 d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?
Air Quality	3.3 b)	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)?
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?
Cultural Resources	3.5 d)	Disturb any human remains, including those interred outside of formal cemeteries?
Hydrology	3.9 a)	Violate any water quality standards or waste discharge requirements?
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 g)	Comply with federal, state, and local statutes and regulations related to solid waste?

There are a number of cumulative impacts that can be effectively mitigated. These impacts are listed in the table below.

Please see Chapter 8 for a list of mitigation measures to be implemented as part of the proposed Project.

Less than Significant Impacts

Table 4-4
Checklist Items with Less than Significant Impacts

Impact Section	Checklist Item #	Checklist Criteria
Agricultural & Forestry	3.2 a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to non-agricultural uses?
Air Quality	3.3 a)	Conflict with or obstruct implementation of the applicable air quality plan?
Air Quality	3.4 d)	Expose sensitive receptors to substantial pollutant concentrations?
Air Quality	3.5 e)	Create objectionable odors affecting a substantial number of people?
Biological	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 or U.S. Fish and Wildlife Service?
Geology	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?
Greenhouse Gases	3.7 a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
Hazards	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	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)?
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?
Public Services	3.14 a)	Fire protection?
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?
Traffic	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?
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 d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?
Land Use	3.10 c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impacts

Table 4-5
Checklist Items with No Impacts

Impact Section	Checklist Item #	Checklist Criteria
Aesthetics	3.1 a)	Have a substantial adverse effect on a scenic vista?
Aesthetics	3.1 b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Agricultural & Forestry	3.2 b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?
Agricultural & 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 & Forestry	3.2 d)	Result in the loss of forest land or conversion of forest land to non-forest use?
Agricultural & 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	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	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	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?
Biological	3.4 e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
Biological	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	3.6 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. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction?
Geology	3.6 b)	Result in substantial soil erosion or the loss of topsoil?
Geology	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?
Geology	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	3.8 a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
Hazards	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?
Hazards	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	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	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	3.8 g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
Hazards	3.8 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?
Hydrology	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	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	3.9 e)	Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
Hydrology	3.9 f)	Otherwise substantially degrade water quality?
Hydrology	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	3.9 h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?
Hydrology	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	3.9 j)	Inundation by seiche, tsunami, or mudflow?
Land Use	3.10 a)	Physically divide an established community?
Land Use	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?
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 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 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?
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)?
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:
Public Services	3.14 a)	Police protection?
Public Services	3.14 a)	Schools?
Public Services	3.14 a)	Parks?
Public Services	3.14 a)	Other public facilities?
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?
Traffic	3.16 c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
Traffic	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)?
Traffic	3.16 e)	Result in inadequate emergency access?
Traffic	3.16 f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?
Utilities	3.17 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 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?

REFERENCES

2012 CEQA Guidelines

ALTERNATIVES
Chapter 5

INTRODUCTION

CEQA Guidelines §15126.6 require that a reasonable range of alternatives to the proposed project be discussed in the EIR. Specific requirements include the following:

- CEQA Guidelines §15126.6(a): Alternatives to the proposed Project. An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.
- 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.
- 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.
- CEQA Guidelines §15126.6(e): "No project" alternative. 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.
- 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.

"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 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."[1]

ALTERNATIVES CONSIDERED

Alternative 1: No Project

This alternative by definition would not meet the objectives of the proposed Project. Although this alternative may lessen certain environmental impacts, it would also reduce the State of California's ability to achieve a number of environmental goals. Without the proposed Project, there would be more impacts on landfill capacity and also have indirect impacts on Greenhouse Gases.

Alternative 2: Digester Only

One potential alternative is limit the Project to just the digester. This alternative by definition would not meet the objectives of the proposed Project. From an operational point of view, the existing parcel would remain underutilized and the operational efficiency of the proposed Project would not be achieved.

Alternative 3: Compost Expansion Only

One potential alternative is to eliminate the digester. This alternative by definition would not meet the objectives of the proposed Project. As delivery truck for the composting would utilize the natural gas produced by the digester, operational efficiencies would be reduced.

Alternative 4: Project on Adjacent Site

An alternative site is typically the most complex and costly alternative. For expansion projects, this alternative typically involves land cost, construction of new buildings and/or additional equipment. It may also be challenging to find available land that would allow this type of use required for the proposed Project element, have lower site specific environmental issues, and be located within the desired service area. As such, this alternative typically results in a substantial increase in the cost to meet the objectives of the proposed Project. In addition, from an operational point of view, an existing parcel could remain underutilized and the operational efficiency of the proposed Project would not be achieved.

The nearest potential alternative site is the adjacent parcel on which the dairy is located. As this adjacent site has a fully functional dairy, it may not be feasible to include all the elements of the proposed Project.

[1] 2012 CEQA Guidelines, Section 15021

Alternative 5: Alternative Configuration
A potential alternative could be to reconfigure the site layout of the proposed Project. This alternative would not reduce environmental impacts, as most of the potentially significant impacts are not related to site layout. The digester could be moved to middle of the site or the other end of the site; however, this alternative would impact operational efficiencies. Moving the location of the digester would have little effect on any of the potentially significant impacts.

FACTORS CONSIDERED IN ANALYSIS OF ALTERNATIVES

In this Alternatives analysis the following criteria will be used:

Evaluation Criteria 1: Implementation of AB 32
AB 32 has defined plans and programs for 2020, with the vision of 2050 that sets a goal to have an 80% reduction of greenhouse gas (GHG) compared to the 1990 base year. The proposed composting expansion, anaerobic digester, and CNG station accommodates AB 32 measures of 2020 and provides the framework for addressing the goals outlined in AB 32.

Evaluation Criteria 2: General Plan Update 2030 – Climate Action Plan
The County of Tulare Board of Supervisors adopted a Climate Action plan as part of the General Plan 2030. This Climate Action Plan identifies specific General Plan policies that encourage solid waste reduction. The creating more compost and generating methane. These two project elements would reduce solid waste and encourage private use of recycled materials.

Evaluation Criteria 3: Renewable Energy
One of the objectives of the proposed Project is the use of renewable energy to develop the ability to have sustainable business operations. Although renewable energy can help the environment, a steady supply of clean energy allows for low cost fuel which allows for more efficient operations.

Evaluation Criteria 4: Expand production of organically certified soil
Harvest Power is in a unique market segment. The composting operations create organically certified soil. As the demand for this product grows, the proposed Project will allow Harvest Power to capture the demand within this market niche.

Evaluation Criteria 5: Efficient Business Operations
As the proposed Project involves an expansion of an existing business, operational efficiency is a major concern in the long-term viability of the business. Operational efficiency affects both operational costs and operational effectiveness through the maximization of existing buildings and equipment.

Evaluation Criteria 6: Project Specific Elements
- Increase composting tonnage from 86,000 tons a year to a potential 216,000 tons per year.
- High Solids/Low Solids/Hybrid Low and High Solids Anaerobic Digester to produce methane. This digester will process 60,000 tons of green waste a year.
- CNG Gas Station to refuel vehicles.

Evaluation Criteria 7: Reduce 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 structure and/or duplicative equipment. The addition of new buildings and/or equipment require the use of additional resources, which on a cumulative basis would increase impacts to environment in general.)

Evaluation Criteria 8: Financial Feasibility
Although there may be a large amount of theoretical alternatives, there are only a few alternatives that could potentially be implemented due to costs involved in the alternative. Considerable increases in costs can make a project alternative infeasible. In addition to construction costs, operational costs will be compared to the proposed project based on lost revenue.

Evaluation Criteria 9: Physical Feasibility (Land Size and Configuration Constraints): Physical feasibility is required because if site for a particular alternative is too small or if the components of the proposed Project cannot be configured on the site, then the alternative would not feasible and should be eliminated from review.

POTENTIAL IMPACTS OF ALTERNATIVES

The table below is a generalized comparative assessment of potential impacts of the alternatives.

Table 5-1
Alternatives Potential Impact Analysis

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Aesthetics	Less	Similar	Less	Similar	Similar
Agriculture and Forestry Resources	Similar	Similar	Similar	Similar	Similar
Air Quality	Less	Similar	Less	Similar	Similar
Biological Resources	Similar	Similar	Similar	Similar	Similar
Cultural Resources	Similar	Similar	Similar	Similar	Similar
Geology and Soils	Less	Less	Less	Similar	Similar
Greenhouse Gas Emissions	More	More	More	Similar	Similar
Hazards and Hazardous Materials	Less	Similar	Less	Similar	Similar
Hydrology and Water Quality	Less	Less	Less	More	Similar
Land Use and Planning	Similar	Similar	Similar	Similar	Similar
Mineral Resources	Similar	Similar	Similar	Similar	Similar
Noise	Less	Less	Similar	More	Similar
Population and Housing	Similar	Similar	Similar	Similar	Similar
Public Services	Similar	Similar	Similar	Similar	Similar
Recreation	Similar	Similar	Similar	Similar	Similar
Transportation and Traffic	Less	Similar	Less	Similar	Similar
Utilities and Service Systems	Less	Less	Less	Similar	Similar
Mandatory Findings of Significance	Less	Less	Less	Similar	Similar
Cumulative Impacts	Less	Similar	Less	Similar	Similar
Assessment of Impact Reduction	Yes & No	Yes & No	Yes & No	No	No

Alternatives 1, 2, and 3 would result in higher greenhouse gases (GHGs) on a cumulative level, as these alternatives do not include the all the proposed Project elements that would have full environmental benefit related to GHGs. Although, these three alternatives could reduce other impacts, the GHG benefits of the proposed Project would not occur in these three alternatives.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The No Project Alternative would have more Greenhouse Gas Impacts, as the proposed Project would result in a benefit to Greenhouse Gases. As discussed in Chapter 3.7, the amount of greenhouse gases diverted from the implementation of the proposed Project has been estimated to be 73,487 $MTCO_2E$.

As noted in the mandatory findings of the significance section, odor on a cumulative basis is the only significant and unavoidable impact. Alternatives 1 and 3 could potentially reduce this odor, although the amount of reduction is hard to quantify. The other alternatives would have similar impacts as the proposed Project in regards to odor. When evaluating impacts of alternatives 1 and 3, the choice is between cumulative odor impacts and cumulative greenhouse gas benefits. As greenhouse gas reduction benefits has been fully quantified and odor impacts are difficult to measure, the argument for greenhouse gas reduction is stronger than odor reduction.

In addition, the No Project Alternative would not meet the project elements or the project objectives. Furthermore, each of the alternatives analyzed will have at least one evaluation criteria that would result in higher impacts than the proposed Project. As such, the proposed Project is Environmentally Superior Alternative.

FINANCIAL ANALYSIS OF ALTERNATIVES

As part of the feasibility analysis of the alternatives, a financial analysis has been conducted. To allow this business to maintain it competitive edge in their niche market, no dollar amounts are used. Instead, scales of financial impact are provided for each potential cost/expense item. See tables below.

Table 5-2
Costs of Alternatives

Cost	Item
$$$$$	Loss of Grant Funding
$$$$	Land Purchase
$$$	Lost of Revenue from the additional compost sales
$$$-$$	Operational Inefficiencies
$$	Loss of Digester Tipping Fees
$$	Loss of Composting Tipping Fees
$	Increased Construction Costs
$	Cost of Additional Equipment
$	Loss of Electricity Sales
$	Cost of Gas usage

$ Very Low Cost
$$ Low Cost
$$$ Moderate Cost
$$$$ High Cost
$$$$$ Very High Cost

Table 5-3
Increased Costs of Alternatives

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Loss of Grant Funding	**$$$$$**	**-**	**$$$$$**	**-**	**-**
Land Purchase	**-**	**-**	**-**	**$$$$**	**-**
Lost of Revenue from the additional compost sales	**$$$**	**$$$**	**-**	**-**	**-**
Operational Inefficiencies	**$$$**	**$$**	**$$**	**$$**	**$$**
Loss of Digester Tipping Fees	**$$**	**-**	**$$**	**-**	**-**
Loss of Composting Tipping Fees	**$$**	**$$**	**-**	**-**	**-**
Increased Construction Costs	**-**	**-**	**-**	**$$**	**$$**
Cost of New Equipment	**-**	**-**	**-**	**$**	**-**
Loss of Electricity Sales	**$**	**-**	**$**	**-**	**-**
Cost of Gas Usage	**$**	**-**	**$**	**-**	**-**
Cost (Lost Revenue) Increase over Proposed Project	**Very High**	**Moderate**	**Very High**	**High**	**Low**

$ Very Low Cost
$$ Low Cost
$$$ Moderate Cost
$$$$ High Cost
$$$$$ Very High Cost

Each alternative would have some level of additional cost associated with each alternative. Alternative 1 (No Project) and the Alternative 3 (Compost expansion only) would have the highest cost from the loss of the CEC grant. Alternative 4 (Location on another site) would have the second highest cost due to the need to purchase additional property. Alternative 2 (Digester only) would have third highest cost due to loss of revenue sales from the additional compost production. Alternative 5 (Reconfiguration) would have fourth highest cost due to operational inefficiencies and increased construction costs.

ALTERNATIVES ANALYSIS

The proposed Alternatives were analyzed based on the nine evaluation criteria noted above. All the Alternatives considered would not meet the objectives of the proposed Project. In addition, each of the alternatives has other individual deficiencies.

Alternatives 4 and 5 will have higher costs without improvements in business operations or a reduction in potentially significant impacts. Alternatives 1, 2, and 3 will result in a lower level of implementation of AB 32 and the Tulare County General Plan Climate Action Plan than the proposed Project. In addition, these three Alternatives do not include all the project elements, and as a result, will not result in efficient business processes.

As such, the proposed Project is the favored alternative. See table below.

Table 5-4
Alternatives Evaluation

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
1. Implementation of AB 32	No	No	No	Yes	Yes
2. General Plan Update 2030: Climate Action Plan	No	No	No	Yes	Yes
3. Use of Renewable Energy	No	Yes	No	Yes	Yes
4. Expand production of organically certified soil	No	No	Yes	Yes	Yes
5. Efficient Business Operations	No	No	No	No	No
6. Project Elements	No	No	No	No	Yes
7. Reduce Potentially Significant Impacts	No	Yes	No	No	No
8. Financial Feasibility	Very High Cost	Moderate Cost	Very High Cost	High Cost	Low Cost
9. Physical Feasibility	Yes	Yes	Yes	No	Yes

Economic & Social Effects And Growth Inducing Chapter 6

INTRODUCTION

This Chapter discusses economic, social and growth inducing effects of the Project**. Table 6-1** provides the CEQA requirements and a summary of the impact analysis.

Table 6-1
Summary of Economic, Social and Growth Inducing Impacts

Topic	Summary of Impact	CEQA Requirement
Economic Impact	The proposed Project will not result in negative impacts to the region. It will result in a minor increase in economic benefits to the region since the proposed Project will employ 5 additional persons.	CEQA does not have specific requirements for evaluating the economic impacts of a proposed 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 proposed Project will not result in a disproportionate effect on minority populations, low income populations, or Native Americans. The proposed Project does not pose any adverse environmental justice issues that would require mitigation.	The social impacts of a project include environmental justice considerations. California Government Code Section 65040.12 defines Environmental Justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies."
Growth Inducing Effect	The proposed Project will not result in significant growth inducing impacts. The expansion of the current composting facility, addition of an anaerobic digester and a compressed natural gas (CNG) station will result in only 5 new employees. The Project will not result in new housing. Growth inducing impacts will be less than significant.	CEQA Guidelines § 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.

Therefore, 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. No mitigation measures are required.

ENVIRONMENTAL SETTING

"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. Employment figures for Tulare

County are released by the California Employment Development Department (EDD) in the monthly Labor Force Report. The most recent unemployment figures available (December 2008) reveal a national unemployment rate of 7.2%, 9.3% for California, and 14.3% for Tulare County."[1]

"Approximately 25 percent of the County's population lives under the poverty level. A comparison between poverty levels from 1990 and 2000 (Table 3-K) shows overall the County' poverty level has remained constant. However, upon closer investigation there appears to be improvement in some specific communities; London has improved from 64 percent to 45 percent and Tipton from 35 percent to 20 percent. Other communities have gotten worse; Pixley has slipped from 30 percent to 43 percent and Woodville has gone from 26 percent to 37 percent. Tulare County's rural communities continue to have lower incomes and a higher level of poverty."[2]

ECONOMIC IMPACTS

Under CEQA Guidelines 15131, "[e]conomic 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. 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

[1] 2009 Tulare County Housing Element, page 30
[2] Ibid., page 35

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]

Economic Benefits of proposed Project

According to the EPA, additional potential revenue from recycling and composting in California could be achieved. See **Table 6-2** below.

Table 6-2[4]
Potential Revenue from Recycling and Composting in California

Revenue Source	Dollars
Additional Salaries and Wages	$508,142,161
Additional Goods and Services	$1,383,555,388
Additional Sales	$679,199,918

The proposed Project consists of an expansion of organic compost production and the creation of an anaerobic digester. The site is the point of sale for the compost products and therefore will increase tax revenue for Tulare County.

The anaerobic digester will take green waste from the area. The point of sale for the disposal of the green waste will be located on site. This additional service will provide an economic benefit to Tulare County. In addition, the digester would produce methane that is processed into CNG for large delivery trucks. This alternative fuel source will serve the composting and digester business by reducing fuel costs. This operational efficiency will not result in direct economic impacts to Tulare County

In addition, the proposed Project will result in increasing the number of employees by 5 persons. This is a modest increase in the number of employees; however, any additional jobs in the area provide an economic benefit for Tulare County and the area near the project site.

SOCIAL EFFECTS

Environmental Justice

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."[5] The basis for environmental justice lies in the Equal Protection Clause of the U.S. Constitution, wherein, the Fourteenth Amendment expressly states the following: "No State shall make or enforce any law which shall abridge the

[3] 2012 CEQA Guidelines, Section 15131
[4] Reducing Greenhouse Gas Emissions through Recycling and Composting, page 13
[5] General Plan Guidelines, page 22

privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws."[6]

Environmental Justice in Cal Recycle Strategy

The California Integrated Waste Management Board (now known as CalRecycle) has committed to Environmental Justice as contained in their 2001 Strategic Plan. "[T]he Board is committed to protecting the environment and public health and safety in a manner that does not unfairly affect any group. Through the objectives and strategies listed below, we will examine all of our programs and activities to identify opportunities to reach out to low-income and minority populations to ensure that we provide the information and technical assistance needed to participate in a meaningful manner; and to address the disproportionate impacts of pollution on low-income and minority populations."[7]

Low-income and Minority Populations

The Project site in not located near disadvantaged communities (as defined by E.O. 12898) and there are no large housing complexes within a mile of the project site. The existing surrounding uses near the site are agricultural uses (rural residential/farms, and a dairy). No known housing for migrant farm workers is located within a mile of the site. In addition, the proposed Project is an agricultural land use type that is complementary to other agricultural uses. As a result of the surrounding context and land uses, the proposed Project will not impact low-income and/or minority populations.

Inappropriateness of Affordable Housing

The 2008 Regional Housing Needs Assessment (RHNA) allocated a total 7,035 units to unincorporated areas of the County to meet the January 1, 2007 - June 30, 2014 existing and projected housing need. The allocation included 1,147 units for extremely low income households; 1,147 units for very low income; 2,132 units for low income, 2,138 units for moderate income; and 471 units for above moderate income. The Tulare County Housing Element was certified by the State Department of Housing and Community Development (HCD) in June 2012.

The project site is not suitable for affordable housing as a result of the current agricultural/rural residential zoning. Typically, affordable housing projects require high-densities to maintain economic and financial viability. Low-income and high density affordable housing does not result in sufficient income volume to pay for the cost of construction (without subsidies) and farm worker housing would likely require additional subsidies to recapture cost. In addition, the siting of the proposed Project is not appropriate for affordable housing. The project site is located adjacent to a dairy which will result in land use incompatibility with affordable housing. Lastly, the project site is also not located adjacent to a bus line or within the central portion (a

[6] U.S. Constitution, Amendment XIV, §1
[7] Strategic Plan, Integrated Waste Management Board, 2001, page 20

downtown) of the community which could place additional hardships and increase the cost of living for potential low-income resident

GROWTH INDUCEMENT

As outlined in the CEQA Guidelines § 15126.2 (d), growth-inducing impacts of the proposed Project should "[d]iscuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."[8]

Generally, growth inducing impacts are a result of very large businesses or very large housing developments. A large influx of jobs or people would require additional services which could potentially induce growth related impacts. In addition, changes to a General Plan could also induce growth. The General Plan Background Report notes that the Tulare County population will grow from 429,000 in 2007 to 742,970 in 2030. This anticipated growth scenario has already been identified and addressed in the Tulare County 2030 General Plan EIR.

The proposed project would not result in a substantial increase in employment, and correspondingly, would not result in a substantial increase in population and associated demand for housing in the area. For these reasons, the project is not anticipated to result in substantial growth inducement. An increase of 5 individuals to Tulare County's population would have a minimal effect on employment, public services and facilities, and growth in the overall region. Given Tulare County's housing vacancy rates combined with the limited permanent workforce needed to support the project, it is anticipated that adequate housing would be available without exceeding the demands of Tulare County's existing housing supply. Therefore, the operation of the proposed project would not result in new growth in the area relating to the potential population increase.

In addition, the composting expansion and anaerobic digester will convert waste materials into additional niche market products and energy. This niche market product supply expansion will not induce growth as waste products will not be increased. As the region contains an existing supply of waste material for conversion to this niche market, the Project will not directly induce growth. As such the proposed Project does not have the potential to induce significant growth in Tulare County. See **Table 6-3**.

[8] 2012 CEQA Guidelines, Section 15126.2 (d)

Table 6-3
Discussion of Potential Growth Inducing Impacts

Potential Growth Inducing Impacts	Discussion
Foster Economic or Population Growth	The proposed expansion of the Project will require employment of 5 additional persons which will result in increased economic growth. Although the proposed Project will result in an economic benefit for Tulare County, the proposed Project will not induce substantial growth.
Construction of Additional Housing – Either Directly or Indirectly	The proposed Project would not increase the demand for housing beyond the existing housing supply. Therefore, the Project will not result in a need for additional housing.
Other Growth Actions	The proposed Project will would not remove obstacles to population growth and will not induce other growth-related activities.

As noted in **Table 6-3**, less than significant growth inducing impacts are anticipated.

REFERENCES

2009 Housing Element, Tulare County

2012 CEQA Guidelines

Strategic Plan, Integrated Waster Management Board, 2001

State of California General Plan Guidelines, Governor's Office of Planning and Research, 2003

Amendments to the Constitution of the United States of America,
http://www.gpo.gov/fdsys/pkg/GPO-CONAN-1992/pdf/GPO-CONAN-1992-7.pdf

Unmitigable Impacts
Chapter 7

ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

This Project will result in a significant and unavoidable odor impact. Combined with the adjacent dairy's odors, the cumulative impacts from this Project will impact nearby humans resulting in a Mandatory Finding of Significance, which is significant and unavoidable.

Under CEQA Guidelines Section 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 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 potential odors from this facility plus odors from other sources (such as an adjacent dairy) are cumulatively unavoidable despite implementation of an Odor Impact Mitigation Plan (OIMP) as required by CalRecycle at the facility. To date, Harvest Power has complied with the OIMP and CalRecycle's Law Enforcement Agency (LEA) has not issued any violations or compliance orders for the facility. However; when combined, the odors generated by the existing dairy and the Project may cumulatively result in a nuisance. As a result of this impact being unavoidable, even with the implementation of Mitigation Measures, the public benefits of the project (such as benefits to air quality, conversion of waste materials to re-useable energy, and reduction of waste streams to local landfills) outweigh this isolated impact to the environment.

IRREVERSIBLE IMPACTS

Under CEQA Guidelines Section 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]

[1] 2012 CEQA Guidelines, Section 15126.2 (b)
[2] 2012 CEQA Guidelines, Section 15126.2 (c)

STATEMENT OF OVERRIDING CONSIDERATIONS

Authority to Approve Project Despite Significant Effects

As contained in CEQA Guidelines Section 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."[3]

An agency may prepare a statement of overriding considerations. As noted in CEQA Guidelines Section 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]

Overriding Considerations for the proposed Project

The findings descried earlier indicate that the cumulative odor's environmental effects will remain significant to nearby owners despite implementation of mitigation, and the evaluation of odor reducing alternatives. Thus, the County of Tulare can conclude that there are no feasible alternatives that can reduce these potentially significant and unavoidable impacts to a less than significant level and that all feasible alternatives have some significant and unavoidable impacts. The County of Tulare can also determine that the Project results in the following public benefits as described in detail in the Final EIR that justify proceeding with the Project despite the adverse environmental impact of the residual significant effects:

[3] 2012 CEQA Guidelines, Section 15043
[4] Ibid., Section 15093 (a)
[5] Ibid., Section 15093 (b)
[6] Ibid., Section 15093 (c)

Imposition of Mitigation

"In California, the regulation of nuisance odors is more procedural and official than in most other states. All commercial composting facilities in California are required to "prepare, implement, and maintain" a site-specific Odor Impact Minimization Plan or *OIMP* (Title 14 California Code of Regulations, Chapter 3.1 §17863.4; California Integrated Waste Management Board (CWWMB). 2005).

The OIMP process was developed as a response to legislation that gave primary authority over odor complaints at composting facilities to the CIWMB (Health and Safety Code 41705), but required the CIWMB to develop odor regulations and procedures. The OIMP process relies on a philosophy of constant improvement, rather than prescriptive standards. California does not have numeric criteria for when an odor becomes a nuisance. Rather, a facility handling compostable organic materials is required to prepare, implement, and maintain an OIMP. The OIMP must describe design and operational procedures for minimizing odors.

The OIMP also describes meteorological conditions and a complaint response protocol. The OIMP and the facility are typically inspected monthly (although some types of facilities are inspected quarterly). The LEA determines whether or not the facility has an OIMP and is implementing the practices described in the OIMP. If the LEA finds that the facility is not implementing the procedures outlined in its OIMP, the LEA may issue a Notice and Order. If the LEA finds that the OIMP is being fully implemented, but odor impacts are still occurring, the LEA may require the operator "to take additional reasonable and feasible measures to minimize odors. [7]""

Harvest Power's existing OIMP process includes:

- Mixing the any food materials with green materials immediately upon arrival at the site,
- Incorporating into compost windrows as soon as possible, within a maximum of 36 hours.
- Watering and turning regimes increase the temperature and speed of breakdown of the material in the windrows, diminishing odor.
- A specific protocol for neighbor notification and response to neighbor issues is also included.

Per the Cal Recycle LEA, any complaints have been addressed, and the OIMP for this project has not been challenged, and will be updated and approved concurrently with the EIR.

The updating of the OIMP serves as current mitigation measures for Mitigation Measure 3.10-1, 3.18-1, 3.8-1&2. These Mitigation Measures all require the OIMP be updated prior to the attainment of building permits. In addition, there are other conditions of the existing Solid

[7] Comprehensive Compost Response Project, Integrated Waste Management Board, Macrh 2017, page 6

Waste Management Plan (SWMP) in place to control dust and visual impacts. These measures to control the dust and the impaired aesthetics also serve to manage odor. These measures include trees planted around the southern and western edge of the property, with a dust screen immediately behind that. The updated OIMP and SWMP serve as the best practicable, Best Management Practices (BMP), and legally accepted measures by the Responsible Agency in managing any "nuisance" odors.

ODOR RELATED MITIGATION MEASURE 3.10-1, 3.18-1, 3.8-1&2

Finding of No Feasible Alternatives

CEQA section 21061.1 defines "feasibility" as involving a balancing of various economic, environmental, social, and technological factors.[8]

There exists a strong odor from the existing directly adjacent odor to the east of the Project area. In addition, there is a strong odor from the dairy pond to the north of the site. Despite the BMP in place under the OIMP, as the odors from the existing and proposed Project are added to the dairy they create a significant and unavoidable impact to the rural residence to the north of the site. An updated OIMP will lessen odors to a less than significant level for direct impacts, but in the cumulative, the OIMP will not mitigate the Project's impacts as added to the dairy impacts. Therefore, alternative mitigation measures for cumulative odor were considered for this Project.

Infeasible Alternative Mitigation Measure 1: Covering the Facility and Bio-filtering Additional Odors.

The Air District has considered covering the material, as a mitigation measure for VOC's (not odor), under Rule 4565 – *Biosolids, Animal Manure, and Poultry Operations*. The rule allows biosolid / manure composting facilities to either cover their facilities or reduce their VOC emissions 10%. However, the Air District has also found the covering of dairies, with required bio-filtration to be infeasible.

The cost to cover compost can average at up to $32 per square meter.[9] To cover the 35 acres, at a rate of ½ the coverage with bio-filtration would require that approximately 69,000 square meters of compost be covered. This translates to over $2.4 million and would be infeasible.

Infeasible Alternative Mitigation Measure 2: Reducing Off-Site Dairy Odors a) freestall covering the dairy with bio-filtration, and b) reducing odor at the dairy pond through aeration

Again, the Air District has also found the covering of dairies, with required bio-filtration to be infeasible.[10] In addition, the Air District has found that Aerobic lagoon mechanical aeration to achieve a dissolved oxygen concentration of 2.0 mg/L to be infeasible due to enormous energy costs.

[8] Pub. Resources Code, § 21081(a)(3); CEQA Guidelines, § 15091(a)(3)
[9] Transform and Compost Systems (2008) http://www.compost.org/pdf/DGeesing,Aerated,Windrow, Composting,Uncovered.pdf
[10] *Van Der Kooi Dairy, Supplemental Environmental Impact Report* (2009) – See Exhibit C

Given these infeasible odor reduction measures, the Project can not mitigate its cumulative odor impacts.

PROJECT BENEFIT STATEMENTS

Project Benefit # 1: Implementation of AB 32

AB 32 has defined plans and programs for year 2020, with the vision of year 2050 that sets a goal to reduce 80% of greenhouse gas (GHG) compared to the 1990 base year. AB 32 resulted in the adoption of the AB 32 Scoping Plan in 2008 that included a series of measures adopted by the California Air Resources Board (ARB) for high recycling/zero waste which will affect the solid waste and recycling sector and local government. The key elements of AB 32 include anaerobic digestion (AD), the increased use of compost, and extended producer responsibility (EPR). The proposed composting expansion, anaerobic digester, and Compressed Natural Gas (CNG) station meets the objectives of AB 32 measures for year 2020 and provides a mechanism for obtaining the GHG reduction goal for year 2050.

Project Benefit # 2: General Plan Update 2030 – Climate Action Plan

Legislation mandating greenhouse gas reduction and 75% diversion of recyclable materials is resulting in residential collection of co-collected (comingled) food scraps and green materials combined with increased commercial food collection. The California Energy Commission noted proposed grant awards for a Celleulosic Ethanol Biorefinery, a project involving Fermentable Sugars for Ethanol from Microalgal Biomass, and a Biorefinery Phase II upscale project, in March 2012.[11] The County of Tulare Board of Supervisors adopted its General Plan 2030 Update on August 28, 2012. The Update includes a Climate Action Plan (CAP) to address AB 32 and identifies specific General Plan policies that encourage solid waste reduction.

The proposed Project was developed to support and implement the efforts by Tulare County to address climate change through its General Plan and Climate Action Plan policies. The proposed Project is intended to support, and is integral to, the diversion of organic materials (green waste and food waste) into composting in order to produce products that have multiple benefits beyond reduction of agricultural waste burning. Benefits include water conservation, soil erosion control, crop disease suppression, increased crop yields. In addition, the facility will assist in meeting state greenhouse gas emissions reductions by providing an alternative to diesel trucks coming to the facility, see Objective 3.

Project Benefit # 3: Renewable Energy

The proposed Project would add energy production capabilities on the current footprint of the composting facility pad. In addition, transportation fuel will be distributed through a CNG refueling station to provide fuel for trucks using the facility, and, to a limited extent, the general

[11] California Energy Commission Website, http://www.energy.ca.gov/contracts/PON-11-601_NOPA.pdf

public. By producing energy as well as compost, the facility will provide additional renewable energy resources to Tulare County.

Project Benefit # 4: Expand production of organically certified soil

The existing composting operations produce organically certified soil. With increasing demand, this facility proposes to expand production to fill the needs of this particular niche market.

Project Benefit # 5: Increase Business Operations within Tulare County

The proposed Project is intended to implement Harvest Power's strategic business plan by planning, designing, constructing and operating a facility which is economically, technologically, and environmentally feasible within Tulare County. This will increase the amount of employees at the site and increase the amount of tax base the County could receive from this project.

Project Benefit # 6: Implementation of Countywide General Plan Policies

Under General Plan Policy AG-2.11 Energy Production, the County shall encourage and support the development of new agricultural related industries featuring alternative energy, utilization of agricultural waste and solar or wind farms. This Project will support animal processing waste digestion, and its transition into biogas and then into CNG and a Combined Heat and Power CHP

Under General Plan Policy ERM-4.6 Renewable Energy, the County shall support efforts, when appropriately sited, for the development and use of alternative energy resources, including renewable energy such as wind, solar, bio-fuels and co-generation. This Project will support animal processing waste digestion, and its transition into biogas and then into CNG (bio-fuels) and CHP (co-generation).

Under General Plan Policy AQ-1.7, the County shall support statewide climate change solutions monitor and support the efforts of Cal/EPA, CARB, and the SJVAPCD, under AB 32 (Health and Safety Code §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. This Project will support animal processing waste digestion, and its transition into biogas and then into CNG (bio-fuels) and CHP (co-generation). According to the EPA, GHG reduction in California through the recycling and composting of Food Scraps is 5,837,189 $MTCO_2E$.[12] "Diversion of food scraps from landfills offers the greatest quantity of in-state GHG emissions reductions. Food scraps are responsible for a large share of methane emissions generated by landfills, and while landfill emissions comprise only a small portion of life-cycle emissions attributable to goods and food, they nonetheless represent a real opportunity for emissions reduction. This is largely due to the large quantities of food that is wasted and sent to landfills."[13]

[12] Reducing Greenhouse Gas Emissions through Recycling and Composting, page 8
[13] Reducing Greenhouse Gas Emissions through Recycling and Composting, page 10

As stated above, the proposed composting expansion, anaerobic digester, and CNG station accommodates AB 32 measures of 2020 and provides the framework for addressing the goal for 2050.

Under PFS-5.3 Solid Waste Reduction, the County shall promote the maximum feasible use of solid waste reduction, recycling, and composting of waste, strive to reduce commercial and industrial waste on an annual basis, and pursue financing mechanisms for solid waste reduction programs. This Project will reduce the amount of solid green waste that is going to landfills, and will recycle them, and re-use them as compost. The organic or food processing waste will be reduced through digestion and turned into energy or applied as liquid to the compost.

Acronyms

(AD)	Anaerobic Digestion
(ARB)	California Air Resources Board
(CAP)	Climate Action Plan
(CHP)	Combined Heat and Power
(EPR)	Extended Producer Responsibility
(GHG)	Greenhouse Gas
(OIMP)	Odor Impact Mitigation Plan

REFERENCES

Reducing Greenhouse Gas Emissions through Recycling and Composting, EPA, May 2011

California Energy Commission Website, http://www.energy.ca.gov/contracts/PON-11-601_NOPA.pdf

2012 CEQA Guidelines

Mitigation Monitoring Reporting Program
Chapter 8

The Mitigation Monitoring and Reporting Program (MMRP) has been prepared in compliance with State law and the Environmental Impact Report (EIR) (State Clearinghouse No.) prepared for the project by the County of Tulare.

The California Environmental Quality Act (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.[1] The law states that the reporting or monitoring program shall be designed to ensure compliance during project implementation. The Mitigation Monitoring and Reporting Program contains 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.

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
Aesthetics							
3.1-1	If any exterior lighting is proposed, it shall be so adjusted as	Prior Issuance of Building	Verification by County of	County of Tulare			

[1] Public Resource Code §21081.6

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
	to deflect direct rays away from public roadways and adjacent properties.	Permit	incorporation of project design features and issuance of building permits	Planning Department			
3.1-2	The Anaerobic Digester and equipment shall be painted with muted colors, with a matte finish prior to the final inspection by the building department.	Prior Issuance of Building Permit	Verification by County of incorporation of project design features and issuance of building permits	County of Tulare Planning Department			
Air Quality							
3.3-1	The applicant shall obtain all required permits from the Air District prior to implementing any elements of the proposed Project.	Prior to issuance of grading permits		County of Tulare Planning Department			
Cultural Resources							
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	Prior to issuance of grading permits Ongoing monitoring during subsurface	Retention of professional archeologist/ongoing monitoring/submittal of Report of Findings, if applicable	County of Tulare Planning Department			

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
	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.	excavation					
3.5-2	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	Prior to issuance of grading permits Ongoing monitoring	Retention of professional archeologist and Native American Representative /ongoing	Department of Planning and Building in consultation with			

Mitigation Monitoring Reporting Program							
Mitigation Measure		Monitoring Timing/ Frequency	Action Indicating Compliance	Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
	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	during subsurface excavation	monitoring/submittal of Report of Findings, if applicable	archaeologist and Native American representative			

Mitigation Monitoring Reporting Program							
Mitigation Measure		Monitoring Timing/ Frequency	Action Indicating Compliance	Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
	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						

Mitigation Monitoring Reporting Program							
Mitigation Measure		Monitoring Timing/ Frequency	Action Indicating Compliance	Monitoring Agency	Verification of Compliance		
					Initials	Date	Remarks
	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						

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
	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.						
3.5-3	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 owner shall include a standard inadvertent discovery	Prior to issuance of grading permits Ongoing monitoring during subsurface excavation	Retention of professional paleontologist/ ongoing monitoring/submittal of Report of Findings, if applicable	County of Tulare Planning and Public Works Department			

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
	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.						
Geology & Soils							
3.6-1	The project shall incorporate all recommendations contained within the Preliminary Soil and Geology Phase 1 Study. These	During project site design, construction, and operations,	Incorporation of all recommendations contained within	County of Tulare Planning and Public			

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
	recommendations shall be stipulated in the construction contracts and specifications.	to reduce any potential geotechnical hazards at the project site	the Preliminary Soil and Geology Phase 1 Study	Works Department			
Hazards and Hazardous Materials							
3.8-1	Hazardous Materials Business Plan from Environmental Health – Under the California Health Chapters 4 & 4.5, the facility is required to submit a business plan to Certified Unified Program Agency (CUPA). Environmental Health as the CUPA for Tulare County, requires a business plan for threshold quantities of: • 55 gallon of a liquid • 500 pounds of solids • 200 cubic yards of compressed gas	Prior to Occupancy	Submittal and verification of Hazardous Materials Business Plan, if required.	County of Tulare Planning and Public Works Department and TCEHSD(CUPA)			
3.8-2	If more than 10,000 pounds of methane is produced in the process, the applicant is required to submit an application for a California Accidental Release Prevention (CalARP)/Risk Management Plan. The applicant	Prior to Issuance of Building Permits	If necessary, submit an application for a California Accidental Release Prevention	County of Tulare Planning Works Department and TCEHSD			

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
	shall immediately contact the Certified Unified Program Agency's (CUPA) inspector and notify the CalARP and submit an application.		(CalARP)/Risk Management Plan	(CUPA)			
3.8-3	If the facility has/or proposes an above ground storage capacity over 1,320 gallons of a petroleum based product, the site shall be required to prepare a Spill Prevention Control and Countermeasure (SPCC) plan in accordance with the U.S. Code of Federal Regulations, Title 40, Part 112 (40CFR112) prior to the final inspection of the building permit. The plan shall be submitted to the Tulare County Environmental Health Services Division. The applicant shall contact the TCEHSD's CUPA inspector.	Prior to Issuance of Building Permits	If necessary, submit prepare a Spill Prevention Control and Countermeasure (SPCC)	County of Tulare Planning and Public Works Department and TCEHSD (CUPA)			
3.8-4	The applicant shall conduct additional soils testing prior to construction of the digester and/or the expansion of the composing activities, as recommended by the Klienfelder, Phase 1 report.	Prior to Issuance of Building Permits	Additional soil testing.	County of Tulare Building Inspection			

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
Hydrology & Water Quality							
3.9-1	The applicant shall receive all required permits from the RWQCB and the State Water Board prior to the issuance of building permits.	Prior to Issuance of Building Permits	Verification of receipt (either letter or email) that the appropriate permit or lack of need for a Report of Waste Discharge permit has been acknowledged by the Central Valley RWQCB.	County of Tulare Planning and Public Works Department and TCEHSD			
3.9-2	The proposed Project shall comply with any new regulations brought by the RWQCB and/or the State Water Board. This includes, but is not limited to, regulations pertaining to the General Tentative Composting Order No. Dwq-2012-Xxxx for composting facilities.	Prior to Issuance of Building Permits	Verification of receipt (either letter or email) that the appropriate permit or lack of need for a Report of Waste Discharge permit has been acknowledged by the Central Valley RWQCB.	County of Tulare Planning and Public Works Department and TCEHSD			

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
3.9-3	The applicant shall prepare and submit a SWPPP to Tulare County prior to the issuance of a building permit. This SWPPP shall be implemented and retain on site as part of business operations.	Prior to Issuance of Building Permits	Approval of SWPPP by Public Works.	County of Tulare Planning and Public Works Department, Public Works Department, and TCEHSD			
3.9-4	That any tanks or basin lining be designed to RWQCB standards and approved by TCEHSD prior to the issuance of a building permit.	Prior to Issuance of Building Permits	Approval of Piping plan by TCEHSD	County of Tulare Planning and Public Works Department, Public Works Department, and TCEHSD			
3.9-5	That any piping be reviewed and approved by the TCEHSD to verify that the contents will not pollute the groundwater.	Prior to Issuance of Building Permits	Approval of Piping plan by TCEHSD	County of Tulare Planning Works Department, Public			

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
				Works Department, and TCEHSD			
3.9-6	The drainage system, including the berms, and the retention pond and drainage swale facilities shall be designed, and the plans stamped by a registered Professional Engineer, of whom must be registered and/or licensed in California, and have professional knowledge and experience in the field of on site drainage and detention facility design. The specifications and engineering data for the drainage system and detention facilities shall be submitted to the Public Works Department and TCEHSD for review and approval prior to the issuance of a building permit.	Prior to Issuance of Building Permits	Verification of receipt (either letter or email) that the appropriate permit or lack of need for a Report of Waste Discharge permit has been acknowledged by the Central Valley RWQCB.	County of Tulare Planning, Pubic Works Department, and TCEHSD			
Land Use and Planning							
3.10-1	The composting and anaerobic digester operator shall adhere to all conditions of approval (COA's) noted in the Use Permits for the	Prior to Issuance of Building Permits	Letter of Compliance with all COA from both Special Use	County of Tulare Planning Department			

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
	composting expansion and the anaerobic digester.		Permits for this Project.				
Public Services							
3.14-1	Applicant shall provide an all weather access road to the site and any buildings affected by the Special Use Permit.						
3.14-2	Applicant shall submit plans for any new construction, remodeling, alterations, or building additions. All new construction shall meet 2007 Building Code, Fire Code, Mechanical Code, Electric Code and Plumbing Code, as applicable.	Prior to Issuance of Building Permits	Submittal and Approval of 100% construction plans.	County of Tulare Pubic Works Department			
3.14-3	If proposed use constitutes a change of occupancy, the existing building(s) affected by the change of occupancy and the Special Use Permit shall comply with 2007 Building and Fire Codes and other adopted standards.	Prior to Issuance of Building Permits	Submittal and Approval of 100% construction plans.	County of Tulare Fire Department			
3.14-4	The Tulare County Fire Department shall be notified of the proposed start date of any processing, storage, or special use granted and mitigated prior to initiation of any building	Prior to Occupancy	Notification to the Fire Department of processing, storing or special use granted or mitigated.	County of Tulare Fire Department			

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
	operations.						
3.14-5	Violations of any of these conditions will result in Tulare County Fire Department's rescission of approval of the Special Use Permit.	Prior to Occupancy Fire Department Inspection for Violations	Inspection by Fire Department at plan check, building code approval, and prior to occupation.	County of Tulare Fire Department			
Utilities and Services							
3.17-1	The Project shall comply with any conditions required by the RWQCB for wastewater treatment for on-site effluent treatment in lagoons or tanks. RWQCB conditions shall be forwarded to the Tulare County Planning Branch and the Environmental Health and Human Services Agency for appropriate action.	Prior to Occupancy that any RWQCB conditions be forwarded and considered.	Notification and a consideration of RWQCB conditions.	Tulare County Planning Department and TCEHSD			
3.17-2	The Project shall be required to obtain any applicable permit from the RWQCB as appropriate.	Prior to Issuance of Building Permits	Verification of receipt (either letter or email) that the appropriate permit or lack of need for a Report of Waste	County of Tulare Planning and Public Works Department and TCEHSD			

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
			Discharge permit has been acknowledged by the Central Valley RWQCB.				
3.17-3	The Project shall include all facilities as specified by the RWQCB and/or the Tulare County Planning Branch and the Environmental Health and Human Services Agency.	Prior to Issuance of Building Permits	Verification of receipt (either letter or email) that the appropriate permit or lack of need for a Report of Waste Discharge permit has been acknowledged by the Central Valley RWQCB.	County of Tulare Planning and Public Works Department and TCEHSD			
3.17-4	The applicant shall prepare a SWPPP prior to construction and keep it on site per the NPDES requirements.	Prior to Issuance of Building Permits	Approval of SWPPP by Public Works.	County of Tulare Planning and Public Works Department, Public Works Department, and			

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
				TCEHSD			
3.17-5	The Project's drainage facilities and grading be designed to RWQCB, Tulare County Public Works, CalRecycle and Tulare County Environmental Health Standards and approved by a certified Professional Engineer. Certification shall indicate that the Project will accommodate 100 year, 24 hour storm events in accordance with the noted Agencies standards.	Prior to Issuance of Building Permits	Approval of drainage plan	County of Tulare Planning and Public Works Department, Public Works Department, and TCEHSD			
3.17-6	The applicant shall obtain an updated Solid Waste Facility Permit (SWFP) per CCR, Title 27, Section 21570. A SWFP must be obtained prior to the issuance of building permits, the commencement of the additional composting, and the construction of the anaerobic digestion facility.	Prior to Issuance of Building Permits	Applicant shall submit a copy of the Solid Waste Facility Permit (SWFP)	County of Tulare Planning and Public Works Department and Cal Recycle local LEA: Keith Janke (559) 624-7430			
Mandatory Findings of Significance							
3.18-1	Update the Odor Impact	Prior to	Applicant shall	County of			

Mitigation Monitoring Reporting Program							
Mitigation Measure		**Monitoring Timing/ Frequency**	**Action Indicating Compliance**	**Monitoring Agency**	**Verification of Compliance**		
					Initials	**Date**	**Remarks**
	Management Plan (OIMP) required by Cal Recycle at the facility to maintain its effectiveness despite the Project's increase in the tonnage processed and differing digestion material.	Issuance of Building Permits	submit a copy OIMP	Tulare Planning and Public Works Department and Cal Recycle local LEA: Keith Janke (559) 624-7430			

Report Preparation
Chapter 9

INTRODUCTION

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

THE COUNTY OF TULARE COUNTY

This EIR has been prepared for:

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Tulare County Planning Commissioners:

- Nancy Pitigliano, Commissioner Tipton- District 2
- Bill Whitlatch, Commissioner (Chair) Visalia- District 3
- Wayne O. Millies, Commissioner Springville- District 5
- Melvin K. Gong, Commissioner Orosi- District 4
- John F. Elliott, Commissioner Three Rivers- District 1
- Ed Dias, Commissioner (Vice Chair) Visalia- At Large
- Charlie Norman, Commissioner

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Tulare County Resource Management Staff who Prepared this Document:

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- Ann Chapman, Planner III, MRP, M.A., PhD
- Robert Lujan, RMA GIS Graphics

Technical Studies were Prepared by the Following:

BSK Associates Engineers & Laboratories
Phase 1 Soil and Geology Study

California Historical Resources Information System –
Southern San Joaquin Valley Information Center
Cultural Resources Records Search

Insight Environmental Consultants
Air Quality Impact Analysis

Live Oak Associates, Inc.
Biological Site Assessment Report:

- David Hartesveldt, B.A., Principal
- Jeff Gurule, B.A., Senior Project Manager and Staff Ecologist

John Minney, Well Drilling Contractor
Memo re: Groundwater Extraction

Native American Heritage Commission
Sacred Lands Database Search

Provost and Prichard
Draft Initial Study/Mitigated Negative Declaration

Sierra Valley Cultural Planning
Cultural Resources Assessment Report:

- C. Kristina Roper, M.A., RPA

TPG Consulting
Traffic Impact Study

VRPA Technologies, Inc.
Noise Study