



MITIGATED NEGATIVE DECLARATION

Lemon Cove Wastewater Treatment Plant Project

September 2019

PREPARED FOR:

Lemon Cove Sanitary District
P.O. Box 44374
Lemon Cove, CA 93244

PREPARED BY:



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Initial Study/Mitigated Negative Declaration
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September 2019



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Chapter 1

INTRODUCTION

INTRODUCTION

1.1 Project Summary

This document is the Initial Study/Mitigated Negative Declaration describing the potential environmental effects of implementing a series of upgrades to the Lemon Cove Wastewater Treatment Plant (Project). The proposed Project is more fully described in Chapter Two – Project Description.

Lemon Cove Sanitary District (District) will act as the Lead Agency for this project pursuant to the *California Environmental Quality Act (CEQA)* and the *CEQA Guidelines*.

The Project is expected to be funded through a combination of District funds, Clean Water State Revolving Fund (CWSRF) funds administered through the California State Water Resources Control Board (Water Board). One requirement of CWSRF funding is that the District will be required to comply with the Water Board's environmental requirements including CEQA-Plus. CEQA-Plus involves additional environmental analysis of certain topics to include federal thresholds, rules and regulations (for topics such as air, biology, cultural, etc.). In addition to this Mitigated Negative Declaration, the District is preparing a separate Environmental Package for submittal to the Water Board which includes the CEQA-Plus analysis.

1.2 Document Format

This IS/MND contains five chapters, and appendices. Section 1, Introduction, provides an overview of the project and the CEQA environmental documentation process. Chapter 2, Project Description, provides a detailed description of project objectives and components. Chapter 3, Initial Study Checklist, presents the CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible mitigation measures. If the proposed project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. Chapter 4, Mitigation Monitoring and Reporting Program, provides the proposed mitigation measures, completion timeline, and person/agency responsible for implementation and Chapter 5, List of Preparers, provides a list of key personnel involved in the preparation of the IS/MND.

Environmental impacts are separated into the following categories:

Potentially Significant Impact. This category is applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

Less Than Significant After Mitigation Incorporated. This category applies where the incorporation of mitigation measures would reduce an effect from a “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less Than Significant Impact. This category is identified when the project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact. This category applies when a project would not create an impact in the specific environmental issue area. “No Impact” answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency, which show that the impact does not apply to the specific project (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis.)

Regardless of the type of CEQA document that must be prepared, the basic purpose of the CEQA process as set forth in the CEQA Guidelines Section 15002(a) is to:

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

According to Section 15070(b), a Mitigated Negative Declaration is appropriate if it is determined that:

- (1) Revisions in the project plans or proposals made by or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and
- (2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

The Initial Study contained in Section Three of this document has determined that with mitigation measures and features incorporated into the project design and operation, the environmental impacts are less than significant and therefore a Mitigated Negative Declaration will be adopted.

Chapter 2

PROJECT DESCRIPTION

Project Description

2.1 Location / Surrounding Land Use

The Lemon Cove Wastewater Treatment Plant Project (Project) site is within the central-eastern portion of the San Joaquin Valley. The community of Lemon Cove is a census-designated place located near State Route (SR) 198, approximately seven miles southeast of Woodlake and 17 miles east of Visalia, in Tulare County, California (See Figure 1). The existing wastewater treatment plant (WWTP) lies approximately 0.7 miles north of Lemon Cove on the west side of SR 216, adjacent to Goodale Lane. Immediate surrounding land use is primarily comprised of agricultural purposes. Improvements to the WWTP will occur within a 45-foot buffer around the existing pond and pipeline routes, totaling approximately 2.5-acres (See Figure 2).

2.2 Setting

The Project site consists of the existing 90-foot (northwest-southeast) by 70-foot (northeast-southwest) by 10-foot deep wastewater pond (Figures 2). The single two-celled, bentonite-sealed pond is currently dry. The location is at an elevation of approximately 480 feet and is largely flat. The Kaweah River lies less than a quarter mile northwest of the site and the terrain is slightly sloping in that direction. An overflow ditch is lies to the east of the pond and will not be included in the Project improvements. The Project site is bordered by citrus groves in all directions. Lake Kaweah is approximately two miles northeast of the site.

2.3 Project Background

The Lemon Cove Sanitary District (District) proposes to upgrade its wastewater treatment infrastructure for a Lemon Cove residential community of approximately 100 people. As previously discussed, the District will obtain financing for this Project from the Clean Water State Revolving Fund (CWSRF). The CWSRF is a state and federal partnership that helps address water quality needs. Consequently, the project must not only meet environmental documentation and review requirements under the California Environmental Quality Act (CEQA) but must meet such requirements with respect to certain federal laws and regulations as well. This state and federal review process is known as CEQA-Plus.

Figure 1 – Project Vicinity Map

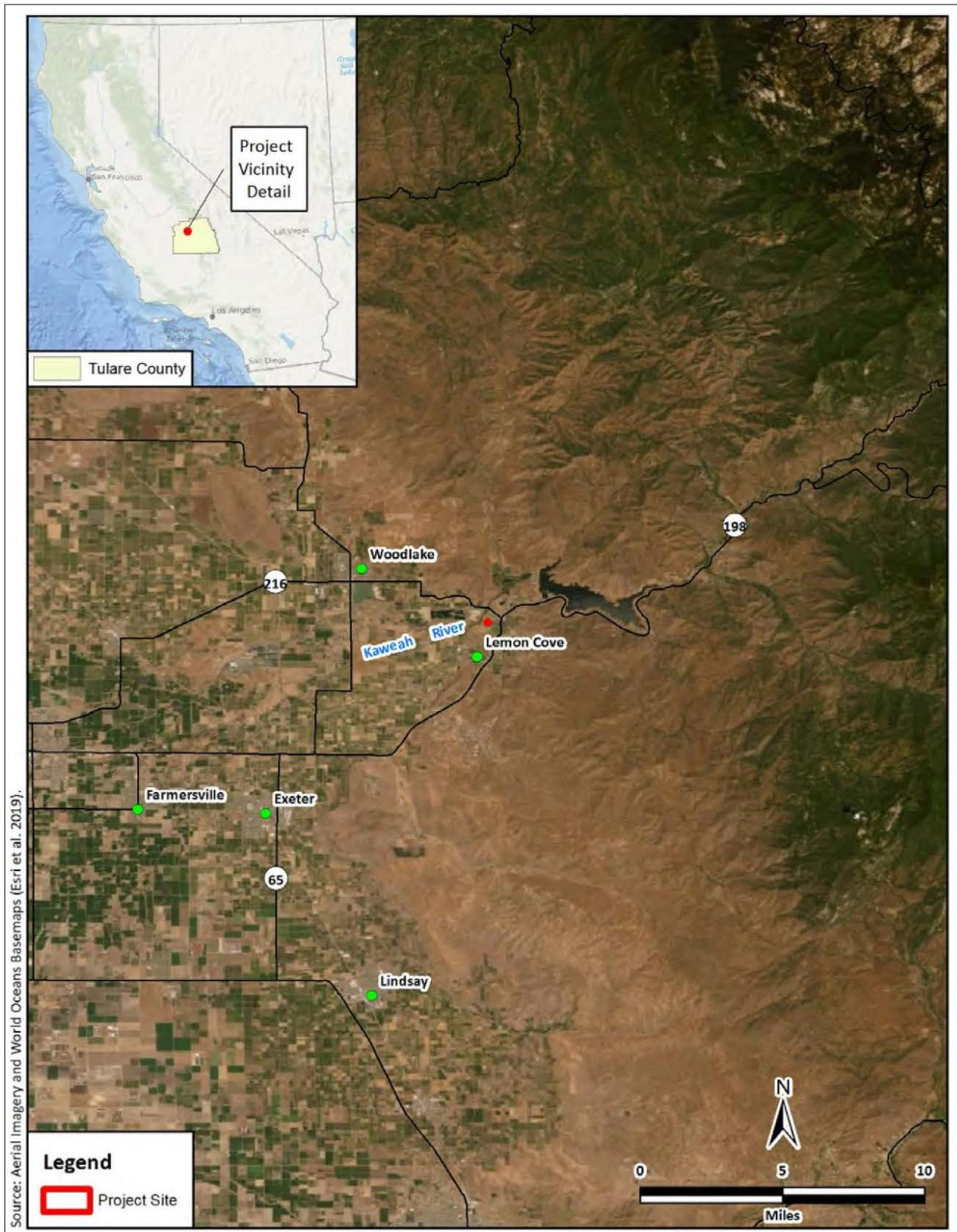
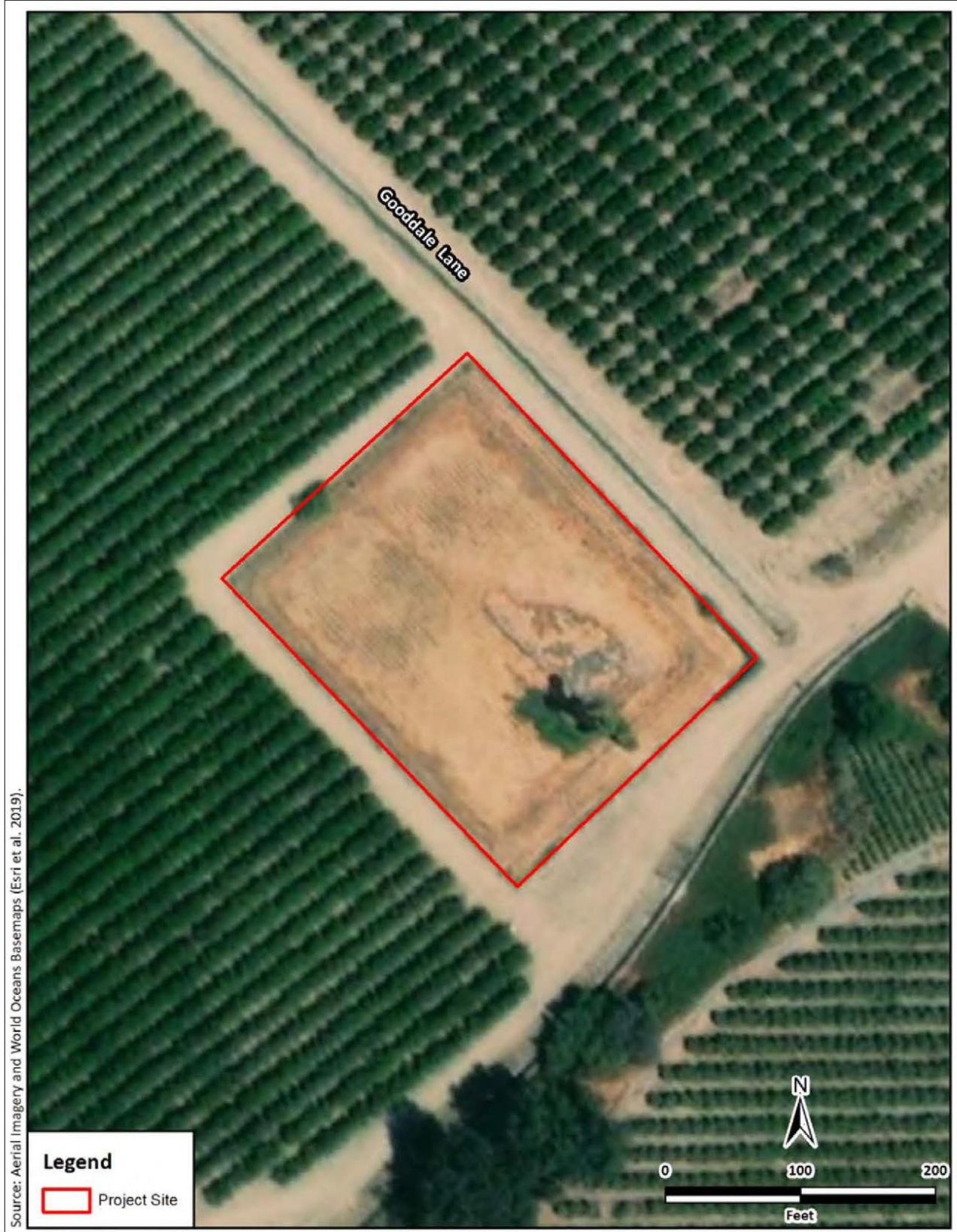


Figure 2 –Site Aerial



2.4 Project Description

The proposed Project is fully described in a Planning Study prepared in April 2019 by AM Consulting Engineers and is summarized herein. The Project will involve improving an existing wastewater treatment plant owned and operated by Lemon Cove Sanitary District under Waste Discharge Requirements (WDR) Order No. 94-348. The District service area totals approximately 22.2 acres and includes approximately 50 connections. The existing pond was evaluated and determined to be in poor condition, thus improved disposal alternatives are necessary to maintain the highest levels of service. It was determined that an alternate disposal system within the existing footprint of the WWTP facility was feasible. As shown in Figure 3 – Proposed Site Plan, upgrades to the existing WWTP will include the following:

- Installation of a 20,000 gallon (10-foot diameter X 35-foot long) septic tank,
- Installation of a 4,000 square foot leach field and associated leach lines, and
- Connection to the existing sewer collection system (with an 8-inch influent line).

Construction:

Construction will occur as plans and funding are in place and is expected to take several months. It is expected to occur in 2020. All construction staging of equipment and materials will be within vacant or unused areas of the existing water treatment plant site.

2.5 Objectives

The primary objectives of the proposed Project are as follows:

- The Lemon Cove Sanitation District’s primary objective is to provide wastewater treatment while maintaining existing levels of regulatory compliance for the protection of water quality and public health.
- The District seeks to operate the improved wastewater treatment system with the most cost-effective methods available that meet overall system performance and regulatory compliance requirements.

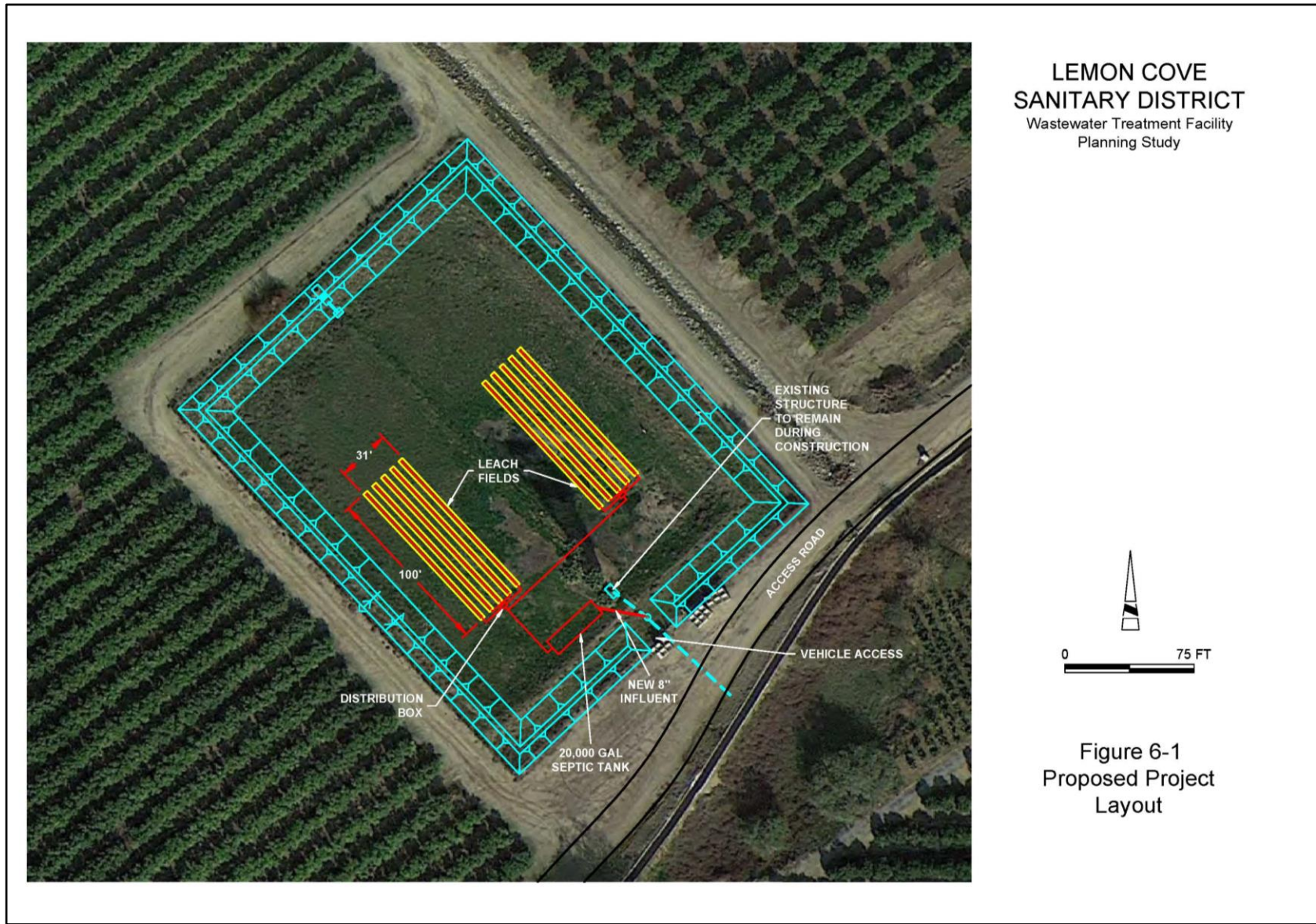
2.6 Other Required Approvals

The proposed Project will include, but not be limited to, the following regulatory requirements:

- The adoption of a Mitigated Negative Declaration by the District

- San Joaquin Valley Air Pollution Control District (dust control and other construction/operation permits)
- Regional Water Quality Control Board approval (SWPPP if applicable)
- CA Water Resources Control Board (CEQA-plus approval)

Figure 3 – Proposed Site Plan



Chapter 3

IMPACT ANALYSIS

Initial Study Checklist

3.1 Environmental Checklist Form

Project title: Lemon Cove Wastewater Treatment Plant Project

Lead agency name and address:

Lemon Cove Sanitary District
P.O. Box 44374
Lemon Cove, CA 93244

Contact person and phone number:

Bill Pensar
(559) 597-2504

Project location:

The Lemon Cove Wastewater Treatment Plant Project (Project) site is within the unincorporated community of Lemon Cove, approximately 0.7 miles north of center of town on the west side of State Route (SR) 198. The Project lies approximately seven miles southeast of Woodlake and 17 miles east of Visalia, in Tulare County, California (See Figure 1). The 2.5-acre wastewater treatment plant (WWTP) is adjacent to Goodale Lane on the west side of SR 216, at an elevation of about 480 feet above mean sea level. Improvements to the WWTP will occur within a 45-foot buffer around the existing pond and pipeline routes (See Figure 2).

Project sponsor's name/address:

Lemon Cove Sanitary District
P.O. Box 44374
Lemon Cove, CA 93244

Description of project:

Lemon Cove Sanitary District proposes to improve its wastewater treatment plant by updating the existing water treatment pond and associated pipelines with a community septic system. The proposed Project is more fully described in Chapter Two – Project Description.

Surrounding land uses/setting:

The Project site is located in an agricultural area approximately 0.7 miles north of Lemon Cove in Tulare County, California. The proposed Project setting is fully described in Chapter Two – Project Description.

Other Required Approvals:

- The adoption of a Mitigated Negative Declaration by the Lemon Cove Sanitary District
- San Joaquin Valley Air Pollution Control District (dust control and other construction/operation permits)
- Regional Water Quality Control Board approval (SWPPP)
- CA Water Resources Control Board (CEQA-plus approval)

California Native American Tribal Consultation:

Have California Native American tribes traditionally and culturally affiliated with the Project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun or is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

In accordance with Assembly Bill (AB) 52, potentially affected Tribes were formally notified of this Project and were given the opportunity to request consultation on the Project. The District’s consultant contacted the Native American Heritage Commission, requesting a contact list of applicable Native American Tribes, which was provided to the consultant. Using the NAHC provided contact list, letters were sent and follow-up phone calls were made to identify Native American interests and concerns in the Project area. No responses were received from any of the Tribal contacts.

3.2 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|---|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources and Forest Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology / Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input checked="" type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

3.3 Determination

Based on this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the

project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date

Lemon Cove Sanitary District

I. AESTHETICS

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

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RESPONSES

- a. Have a substantial adverse effect on a scenic vista?
- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. A scenic vista is defined as a viewpoint that provides expansive views of highly valued landscape for the benefit of the general public. The Sierra Nevada Mountains and foothills, as well as the Kaweah River, are the primary natural and visual resources in the proposed Project region. Views of the mountains are afforded only during clear conditions due to poor air quality in the valley. Distant views of the Sierra Nevada Mountains and close-up views of the Kaweah

River would largely be unaffected by the development of the Project because of the nature of the Project, distance and limited visibility of these features from the Project site. The Project will not impact views of a protected scenic vista or resource from surrounding vantage points.

The nearest eligible scenic highway is a section of SR 198, over 20 miles west of the Project site. The Project is not visible to or from this eligible scenic highway due to intervening land uses.

Therefore, the Project has *a less than significant impact* on protected scenic vistas or designated scenic resources or highways.

Mitigation Measures: None are required.

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

Less Than Significant Impact. The proposed Project involves improvements to the existing wastewater treatment plant (WWTP) that will occur within the existing footprint of the facility. Improvements to the WWTP will only be visible from Goodale Lane, which is a dead-ended agricultural roadway not anticipated to experience much traffic. The nearest rural residential homes are approximately 0.3 miles away, and the Project site is generally shielded from public view by citrus trees and other vegetation. Most of the improvements will not be visible outside of the Project site and the improvements will have similar aesthetic features as the existing facility and as such, will not result in a substantial change to the existing visual nature of the area.

Therefore, the Project would have *less than significant impacts* on the visual character of the area.

Mitigation Measures: None are required.

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

Less Than Significant Impact. Currently the sources of light in the Project area are from occasional vehicles traveling along Goodale Lane and security lights at the existing wastewater treatment plant. Wastewater treatment plant improvements may include a minimal amount of additional security lighting; however, any additional lighting would not be expected to appreciably change any existing glare or lighting conditions because the visibility of the site from residential areas and public spaces and roadways is limited. This lighting will be directed downward and will not result in light

“spillage” onto adjacent properties. Accordingly, the proposed Project would not create substantial new sources of light or glare. Potential impacts are *less than significant*.

Mitigation Measures: None are required.

II. AGRICULTURE AND FOREST RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RESPONSES

- a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?
- d. Result in the loss of forest land or conversion of forest land to non-forest use?
- e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The existing WWTP is located in an area of Tulare County considered urban, build up land by the State Farmland Mapping and Monitoring Program. The Project will not change any land uses. As such, the proposed Project would not convert prime farmland, conflict with an existing agricultural use, or result in the conversion of existing farmland. Additionally, no Williamson Act contracted lands would be impacted due to the Project.

The proposed Project does not conflict with any forest land or Timberland Production or result in any loss of forest land. The proposed Project does not include any changes which will affect the existing environment. There is *no impact*.

Mitigation Measures: None are required.

III. AIR QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors or adversely affecting a substantial number of people)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

- a. Conflict with or obstruct implementation of the applicable air quality plan?
- b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- c. Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. The proposed Project lies within the San Joaquin Valley Air Basin (SJVAB). At the Federal level, the SJVAB is designated as extreme nonattainment for the 8-hour ozone standard, attainment for PM₁₀ and CO, and nonattainment for PM_{2.5}. At the State level, the SJVAB is designated as nonattainment for the 8-hour ozone, PM₁₀, and PM_{2.5} standards. Although the Federal 1-hour ozone standard was revoked in 2005, areas must still attain this standard, and the SJVAPCD recently requested an EPA finding that the SJVAB has attained the standard based on 2011-2013 data.¹

¹ San Joaquin Valley Air Pollution Control District. Guide to Assessing and Mitigating Air Quality Impacts. March 19, 2015. Page 28. http://www.valleyair.org/transportation/GAMAOL_3-19-15.pdf. Accessed September 2019.

To meet Federal Clean Air Act (CAA) requirements, the SJVAPCD has multiple air quality attainment plan (AQAP) documents, including:

- Extreme Ozone Attainment Demonstration Plan (EOADP) for attainment of the 1-hour ozone standard (2004);
- 2007 Ozone Plan for attainment of the 8-hour ozone standard;
- 2007 PM₁₀ Maintenance Plan and Request for Re-designation; and
- 2008 PM_{2.5} Plan.

Because of the region's non-attainment status for ozone, PM_{2.5}, and PM₁₀, if the Project-generated emissions of either of the ozone precursor pollutants (ROG or NO_x), PM₁₀, or PM_{2.5} were to exceed the SJVAPCD's significance thresholds, then the Project uses would be considered to conflict with the attainment plans. In addition, if the Project uses were to result in a change in land use and corresponding increases in vehicle miles traveled, they may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

The annual significance thresholds to be used for the Project emissions are as follows²:

Pollutant/ Precursor	Construction Emissions (tpy)	Operational Emissions (permitted) (tpy)	Operational Emissions (non- permitted) (tpy)
CO	100	100	100
NO_x	10	10	10
ROG	10	10	10
SO_x	27	27	27
PM₁₀	15	15	15
PM_{2.5}	15	15	15

The estimated annual construction and operational emissions are provided below. The California Emissions Estimator (CalEEMod), Version 2016.3.2, was used to estimate construction of the wastewater treatment plants improvements and operational (vehicle trips) emissions. A conservative approach was utilized when modeling emissions. It was assumed that construction activities would take place across the entirety of the WWTP area. The improvements at the WWTP will not require electrical power, so there will be no significant additional on-site emissions generated by plant operations. Modeling results are provided in Table 1 and the CalEEMod and Road Construction Emissions Model output files are provided in Appendix A.

² San Joaquin Valley Air Pollution Control District. March 19, 2015. Guide for Assessing and Mitigating Air Quality Impacts. http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf. Page 80. Accessed September 2019.

Table 1
Proposed Project Construction and Operation Emissions

Pollutant/ Precursor	Construction Emissions (tpy)	Threshold/ Exceed?	Operational Emissions (permitted) (tpy)	Threshold/ Exceed?
CO	1.84	100/ N	2.64	100/ N
NOx	1.90	10/ N	0.84	10/ N
ROG	0.24	10/ N	0.49	10/ N
SOx	0.00	27/ N	0.00	27/ N
PM₁₀	0.30	15/ N	0.50	15/ N
PM_{2.5}	0.20	15/ N	0.15	15/ N

As demonstrated in Table 1, estimated construction and operational emissions would not exceed the SJVAPCD's significance thresholds for ROG, NO_x, PM₁₀, and PM_{2.5}. As a result, the Project uses would not conflict with emissions inventories contained in regional air quality attainment plans and would not result in a significant contribution to the region's air quality non-attainment status.³

Localized high levels of CO are associated with traffic congestion and idling or slow-moving vehicles. The SJVAPCD provides screening criteria to determine when to quantify local CO concentrations based on impacts to the level of service (LOS) of roadways in the Project vicinity.

As further discussed in the Transportation/Traffic checklist evaluation, the Project would not generate substantial traffic that would reduce the level of service on local roadways. Therefore, the Project would not significantly contribute to an exceedance that would exceed state or federal CO standards. Additionally, as the estimated construction and operational emissions are below SJVAPCD thresholds, any cumulative considerable increase in criteria pollutants would be less than significant.

As described above, the Project will not occur at a scale or scope with potential to contribute substantially or cumulatively to existing or projected air quality violations, impacts, or increases of criteria pollutants for which the San Joaquin Valley region is under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors). The proposed Project will comply with all applicable air quality plans. Therefore, no violations of air quality standards will occur and no net increase of pollutants will occur. Any impacts would be *less than significant*.

³ San Joaquin Valley Air Pollution Control District. Guide to Assessing and Mitigating Air Quality Impacts. March 19, 2015. Page 65. http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf. Accessed September 2019.

Mitigation Measures: None are required.

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

Less than Significant Impact. If the proposed Project were to result in a sensitive odor receptor being located in the vicinity of an undesirable odor generator, the impact would be considered significant. The SJVAPCD regulates odor sources through its nuisance rule, Rule 4102, but has no quantitative standards for odors. The SJVAPCD presents a list of project screening trigger levels for potential odor sources in its GAMAQI, which is displayed in Table 2. If the project were to result in sensitive receptors being located closer to an odor generator in the list in Table 2 than the recommended distances, a more detailed analysis including a review of SJVAPCD odor complaint records is recommended.

Table 2
Screening Levels for Potential Odor Sources⁴

Odor Generator	Distance (Miles)
Wastewater Treatment Facilities	2
Sanitary Landfill	1
Transfer Station	1
Composting Facility	1
Petroleum Refinery	2
Asphalt Batch Plant	1
Chemical Manufacturing	1
Fiberglass Manufacturing	1
Painting/Coating Operations (i.e. auto body shop)	1
Food Processing Facility	1
Feed Lot/ Dairy	1
Rendering Plant	1

Significant odor problems are defined as:

- More than one confirmed complaint per year averaged over a three-year period; or
- Three unconfirmed complaints per year averaged over a three-year period.

⁴ San Joaquin Valley Air Pollution Control District. March 19, 2015. Guide for Assessing and Mitigating Air Quality Impacts. http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf . Page 103. Accessed September 2019.

There are sensitive receptors located within 2 miles of the Project site. However, these receptors are already located within the vicinity of the existing WWTP and the proposed Project does not substantially bring WWTP operations closer to any existing receptors. Additionally, a majority of the WWTP upgrade is a subsurface community septic system, which should not contribute any offensive odors. As such, any impacts would be considered less than significant.

Mitigation Measures: None are required.

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

- 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?

Less Than Significant Impact With Mitigation. The Project site consists of the existing 2.5-acre developed, graveled, and fenced WWTP and the improvements to be made within a 45-foot buffer around the existing pond and pipeline routes. The Project site is bordered by agricultural development in the form of citrus groves in all directions. The Kaweah River is less than a quarter mile northwest of the site. The Project site is underlain by 90% Tujunga sand soil, alluvial fans (NRCS 2019).

A Biological Resource Evaluation (BRE) was prepared for the proposed Project in September 2019 by Colibri Ecological Consulting, LLC (see Appendix B). As part of the BRE, the California Natural Diversity Data Base (CNDDDB), the California Native Plant Society’s Inventory of Rare and Endangered Plants, and the USFWS special status species lists were queried for records of special-status plant and animal species in the Project area. In addition, a field reconnaissance survey of the Project site was conducted in May of 2019.

A total of 27 plant species (10 native, 16 nonnative and one unknown) were found during the reconnaissance survey (Table 2 of Appendix B). Thirteen bird species and one reptile species were

also detected (Table 2 of Appendix B). Although no protected species were found during the biological survey, the Project could potentially impact the state-listed as threatened Swainson's hawk, which could nest near the Project site. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs, nestlings, or young, or otherwise lead to nest abandonment for Swainson's hawks. Loss of fertile eggs, nestlings, or young or any activities resulting in nest abandonment would constitute a significant impact. Implementation of mitigation measure BIO-1 will reduce any impacts to *less than significant*.

Mitigation Measures:

BIO – 1 Protect nesting Swainson's hawks

1. To the extent practicable, construction shall be scheduled to avoid the Swainson's hawk nesting season, which extends from March through August.
 2. If it is not possible to schedule work between September and February, a qualified biologist shall conduct a survey for active Swainson's hawk nests within 0.25 miles of the Project site no more than 14 days prior to the start of construction. If an active nest is found within 0.25 miles, and the qualified biologist determines that Project activities would disrupt nesting, a construction-free buffer or limited operating period shall be implemented in consultation with the CDFW.
- 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 U.S. Fish and Wildlife Service?
- c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. No wetlands, riparian habitat, or other sensitive natural community were present in the proposed Project area and as such, there would be *no impacts* associated with the proposed improvements.

Mitigation Measures: None 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?

Less Than Significant with Mitigation. The Project could impede the use of nursery sites for native birds protected under the Migratory Bird Treaty Act and California Fish and Game Code. Migratory birds are expected to nest on and near the Project site. 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 or loss of reproductive effort is considered take by the CDFW. Loss of fertile eggs or nestlings, or any activities resulting in nest abandonment, could constitute a significant impact if the species is particularly rare in the region. Implementation of BIO-2 would ensure any impacts remain *less than significant*.

Mitigation Measures:

BIO – 2 Protect Nesting Birds

1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.
 2. If it is not possible to schedule construction between September and January, preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A preconstruction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.
- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- 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?

Less Than Significant Impact. No biologically sensitive areas will be significantly impacted by the proposed Project. Additionally, there are no adopted local, regional, or state habitat conservation plans adopted for the area. As such, there impact is *less than significant*.

Mitigation Measures: None are required.

V. CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

RESPONSES

- a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?
- b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?
- c. Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact With Mitigation. All Project-related activities will occur within the existing footprint of the WWTP, including the small expansion area surrounding the pond. The Project’s area of potential effect (APE) contains all construction, staging, and lay-down areas for the Project. The horizontal APE, consists of approximately 3.2-acres, where the new community septic tank and associated pipelines/leechlines will be installed. It should be noted that the cultural APE contains additional buffer areas where no construction will occur. The vertical APE, estimated at 10-feet, is the maximum depth of excavation necessary for the installation of the aforementioned additions.

To assist in the assessment of cultural/historical resources, an intensive Cultural Resources Class III Inventory / Phase I Survey (Report) was prepared for the proposed Project in September 2019 by ASM Affiliates, Inc. (Note: the Report is under separate cover due to confidential information pertaining to

cultural resource sites nearby). The Report included: (1) a records search at the Southern San Joaquin Valley Archaeological Information Center (SSJVIC) of the California Historical Resources Information System to identify previously recorded cultural resources and prior studies in the APE and surrounding 0.5-mile radius of the APE; (2) a search of the Native American Heritage Commission's (NAHC) Sacred Lands File for known sacred resources and request for contact information for individuals and tribal representatives who may have information about the Project; (3) desktop archival research; (4) an archaeological and built environment pedestrian survey of the APE; (5) an National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) eligibility evaluation of a historical archaeological site; and (6) a buried site sensitivity assessment.

According to the IC's record search, two previous studies – block surveys in 1998 (JA Nodolski/Pacific Legacy) and 2010 (L. Leach-Palm et al/ Far Western Anthropological Research Group, Inc) – had covered portions of the study area. One historical structure (two segments of Foothill Ditch; P-54-004615) was found in the WWTF APE by these surveys. An additional six studies had been completed within 0.5-mi of the APE, resulting in the recording of seven cultural resources within that radius. The records search and a map of previous reports and recorded cultural resources in and around the study area are presented in the Report.

The Native American Heritage Commission Sacred Lands Files were also consulted. This search resulted in no sacred sites or tribal cultural resources being known in the immediate vicinity of the WWTF APE.

The Phase I survey fieldwork was conducted with parallel transects spaced at 15-meter intervals across the 3.2-acres of Project APE, across both sides of the road. One previously recorded cultural resource was identified during the survey (Foothill Ditch) within the Project site's APE and was recorded. No other cultural resources were found. The two segments of Foothill Ditch were found to be significantly altered since their original construction in 1892. Based on the evaluation that the segments lacked integrity, the study concluded on an agreement with previous determinations that Foothill Ditch is not a significant or unique historical resource.

Although no other cultural or archaeological resources, paleontological resources or human remains have been identified in the Project area, the possibility exists that such resources or remains may be discovered during Project site preparation, excavation and/or grading activities. Mitigation Measures CUL – 1 and CUL – 2 will be implemented to ensure that Project will result in *less than significant impacts with mitigation*.

Mitigation Measures:

- CUL – 1** Should evidence of prehistoric archeological resources be discovered during construction, the contractor shall halt all work within 25 feet of the find and the resource shall be evaluated by a qualified archaeologist. If evidence of any archaeological, cultural, and/or historical deposits is found, hand excavation and/or mechanical excavation shall proceed to evaluate the deposits for determination of significance as defined by the CEQA guidelines. The archaeologist shall submit reports, to the satisfaction of the District, describing the testing program and subsequent results. These reports shall identify any program mitigation that the Project proponent shall complete in order to mitigate archaeological impacts (including resource recovery and/or avoidance testing and analysis, removal, reburial, and curation of archaeological resources).
- CUL – 2** In order to ensure that the proposed Project does not impact buried human remains during Project construction, the Project proponent shall be responsible for on-going monitoring of Project construction. Prior to the issuance of any grading permit, the Project proponent shall provide the District with documentation identifying construction personnel that will be responsible for on-site monitoring. If buried human remains are encountered during construction, further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall be halted until the Tulare County coroner is contacted and the coroner has made the determinations and notifications required pursuant to Health and Safety Code Section 7050.5. If the coroner determines that Health and Safety Code Section 7050.5(c) require that he give notice to the Native American Heritage Commission, then such notice shall be given within 24 hours, as required by Health and Safety Code Section 7050.5(c). In that event, the NAHC will conduct the notifications required by Public Resources Code Section 5097.98. Until the consultations described below have been completed, the landowner shall further ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices where Native American human remains are located, is not disturbed by further development activity until the landowner has discussed and conferred with the Most Likely Descendants on all reasonable options regarding the descendants' preferences and treatments, as prescribed by Public Resources Code Section 5097.98(b). The NAHC will mediate any disputes regarding treatment of remains in accordance with Public Resources Code Section 5097.94(k). The landowner shall be entitled to exercise rights established by Public Resources Code Section 5097.98(e) if any of the circumstances established by that provision become applicable.

VI. ENERGY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

- a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
- b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The proposed Project involves improvements to the existing WWTP. During construction, the Project would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass. Title 24 Building Energy Efficiency Standards would provide guidance on construction techniques for the wastewater pond to maximize energy conservation and it is expected that contractors and the District have a strong financial incentive to use recycled materials and products originating from nearby sources in order to reduce materials costs. As such, it is anticipated that materials used in construction and construction vehicle fuel energy would not involve the wasteful, inefficient, or unnecessary consumption of energy.

There would be little operational energy consumed by the updated WWTF, as the processes for treatment are passive and utilize gravity, as opposed to pumps which require electricity. Operational energy will

primarily be consumed during each vehicle trip associated with the proposed use; however, the Project site requires very little operator oversight and few trips are expected.

As discussed in Impact XVII – Transportation/Traffic, the proposed Project would not generate significant on-going additional vehicle trips. However, during construction there will be a temporary increase in vehicular trips to the Project site. The length of these trips and the individual vehicle fuel efficiencies are not known; therefore, the resulting energy consumption cannot be accurately calculated. Adopted federal vehicle fuel standards have continually improved since their original adoption in 1975 and assists in avoiding the inefficient, wasteful, and unnecessary use of energy by vehicles.

As discussed previously, the proposed Project would be required to implement and be consistent with existing energy design standards at the local and state level, such as Title 24. The Project would also be subject to energy conservation requirements in the California Energy Code and CALGreen for the new plant house. Adherence to state code requirements would ensure that the Project would not result in wasteful and inefficient use of non-renewable resources due to building operation.

Therefore, any impacts are *less than significant*.

Mitigation Measures: None are required.

VII. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the most recently	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

VII. GEOLOGY AND SOILS

Would the project:

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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adopted Uniform Building Code creating substantial direct or indirect risks to life or property?

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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Responses:

- a-i. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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.
- a-ii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?
- a-iii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?
- a-iv. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Less Than Significant Impact. The proposed Project site is not located in an earthquake fault zone as delineated by the 1972 Alquist-Priolo Earthquake Fault Zoning Map Act. The nearest known potentially active fault is the Clovis Fault, located almost 50 miles northwest of the site.⁵ No active faults have been mapped within the Project boundaries, so there is no potential for fault rupture. It is anticipated that the proposed Project site would be subject to some ground acceleration and ground shaking associated with seismic activity during its design life. The Project site would be engineered and constructed in strict accordance with the earthquake resistant design requirements contained in the latest edition of the California Building Code (CBC) for seismic zone III, as well as Title 24 of the California Administrative Code, and therefore would avoid potential seismically induced hazards on planned structures. The impact of seismic hazards on the Project would be *less than significant*.

Mitigation Measures: None are required.

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

Less Than Significant Impact With Mitigation. Construction activities associated with the Project involves excavation of soil for installation of the community septic tanks and the associated pipelines and leechlines. These activities could expose barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the Project site. During construction, nuisance flow caused by minor rain could flow off-site. The District and/or contractor would be required to employ appropriate sediment and erosion control BMPs as part of a Stormwater Pollution Prevention Plan (SWPPP) that would be required in the California National Pollution Discharge Elimination System (NPDES). In addition, soil erosion and loss of topsoil would be minimized through implementation of the SVJAPCD fugitive dust control measures (See Section III). Once construction is complete, the Project would not result in soil erosion or loss of topsoil. Mitigation Measure GEO – 1 will ensure that impacts remain *less than significant with mitigation*.

Mitigation Measures:

GEO – 1 In order to reduce on-site erosion due to Project construction and operation, an erosion control plan and Storm Water Pollution Prevention Plan (SWPPP) shall be prepared for the site preparation, construction, and post-construction periods by a registered civil engineer or certified professional. The erosion control plan shall incorporate best management practices consistent with the requirements of the National Pollution

⁵ California Department of Conservation. Fault Activity Map of California (2010). <http://maps.conservation.ca.gov/cgs/fam/>. Accessed September 2019.

Discharge Elimination System (NPDES). The erosion component of the plan must at least meet the requirements of the SWPPP required by the California State Water Resources Control Board.

- 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?
- d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial risks to life or property?

Less Than Significant Impact. See Section VIa. above. The site is not at significant risk from earthquakes, ground shaking, liquefaction, or landslide and is otherwise considered geologically stable. Expansive soils are soils that expand when water is added and shrink when they dry out. Soils in and around the WWTF site include primarily Tujunga sand with gravel – NRCS 2019, which is well-drained sand formed in alluvium. These soils have no limitations for load supporting capacity and as such, would not be classified as expansive. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

- 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?

No Impact. The Project site is comprised of primarily Tujunga sand and is capable of adequately supporting a large septic system. Therefore, there is *no impact*.

Mitigation Measures: None are required.

- f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. As identified in the cultural studies performed for the Project site, there are no known paleontological resources on or near the site. (See Section V. and Appendix C for more details). Mitigation measures have been added that will protect unknown (buried) resources during construction, including paleontological resources. In addition, the site is substantially disturbed and graded and there are no unique geological features on site or in the area. Therefore, there is a *less than significant impact*.

Mitigation Measures: None are required.

VIII. GREENHOUSE GAS EMISSIONS

Would the project:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Responses:

- a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. The U.S. Environmental Protection Agency published a rule for the mandatory reporting of greenhouse gases from sources that in general emit 25,000 metric tons or more of carbon dioxide (CO₂) per year. As shown in the CalEEMod results (Appendix A), the Project will produce the following CO₂:

Construction (2020)	242.04 MT/yr
<u>Operation (2020)</u>	<u>112.06 MT/yr</u>
Combined:	354.10 MT/yr

To be conservative, the proposed Project construction and operational CO₂ emissions are combined, and the Project is estimated to produce 354.10 tons per year of CO₂. This represents less than one percent of the reporting threshold. The impact is therefore considered *less than significant*.

Additionally, emissions from construction are temporary in nature. The SJVAPCD has implemented a guidance policy for development projects within their jurisdiction. This policy, "Guidance for Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA," approved by the Board on December 17, 2009, does not address temporary GHG emissions

from construction, nor does this policy establish numeric thresholds for ongoing GHG emissions. Therefore, construction-generated GHGs are *less than significant*.

Mitigation Measures: None are required.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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response plan or emergency evacuation plan?

- g. Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?

Responses:

- a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- 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?

Less than Significant Impact. While grading and construction activities may involve the limited transport, storage, use or disposal of hazardous materials, such as the fueling/servicing of construction equipment onsite, the activities would be short-term or one-time in nature and would be subject to federal, state, and local health and safety regulations.

Long-term operation of the proposed Project would involve transport, storage, use or disposal of hazardous materials. Water treatment chemicals may be utilized at the treatment site. Small quantities of petroleum products, thinners, and paints would also likely be used on-site.

There are several federal, state and local requirements and regulations that are designed to minimize risks from accidental releases of hazardous materials and the proposed Project will be in compliance with all applicable requirements and regulations. Hazardous material storage and use areas at the WWTP will be built and operated in compliance with the minimum requirements of the Uniform Fire Code and the California Fire Code. Additionally, the WWTP will be constructed in compliance with the California Building Code, which requires design features to resist forces generated by a major earthquake with limited architectural or structural damage and to provide adequate fire protection that precludes accidental releases of hazardous chemicals due to fire.

With implementation of the proposed Project, there are no reasonably foreseeable upset and accident conditions that would create a significant hazard to the public due to the release of hazardous materials. Impacts are considered *less than significant*.

Mitigation Measures: None are required.

- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. No schools are located within 0.25 mile of the Project site. *No impact* would occur.

Mitigation Measures: None are required.

- 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?

No Impact. A database search was conducted to identify recorded hazardous materials incidents in the Project area. The search included recorded incidents on the National Priorities List (NPL), State Priority List (SPL), the Superfund Comprehensive Environmental Response Compensation and Liability Information System List (CERLIS), the EPA's emergency response notification system list (ERNS), and other federal, state, and local agency databases. The Project site was not listed in any of the databases searched. There is *no impact*.

Mitigation Measures: None are required.

- e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. There are no public or private airport within two miles of the Project site; the nearest airport is the Woodlake Airport approximately 4.4 miles west. The proposed Project is not located within any airport safety zone. The Project will have *no impact* to airport operations.

Mitigation Measures: None are required.

- f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The proposed Project involves improvements to the existing WWTP. Construction activities will take place within the existing plant area and will not cause any road

closures that could interfere with any adopted emergency response or evacuation plan. The construction contractor will be required to work with the County (public works, sheriff/fire, etc.) if any roadway diversions are required to ensure that adequate access is maintained for residents and emergency vehicles. However, no such road diversions are anticipated. As such, any impacts will be *less than significant*.

Mitigation Measures: None are required.

g. Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?

No Impact. Implementation of the Project would not change the degree of exposure to wildfires because no new housing or businesses will be constructed and there are no wildlands in the Project vicinity, thus precluding the possibility of wildfires. Therefore, there is *no impact*.

Mitigation Measures: None are required.

X. HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Result in substantial erosion or siltation on- or off- site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

X. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

- a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant Impact. The proposed Project includes improvements to the existing WWTP to ensure water treatment quality standards and pressures are being met. The State Water Resources Control Board will have ultimate review and approval of the upgraded system, thereby ensuring adequate quality standards. The Project would result in a likely beneficial impact to groundwater quality, as it is eliminating direct discharge into the ground. The replacement septic system does not discharge. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

- b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. The proposed Project is intended to provide adequate wastewater treatment to the area by improving the water treatment and storage capacities of the District and by improving wastewater treatment facilities. Additional water supplies are not needed for the Project. The WWTF does not use clean or fresh water in the treatment process and would not otherwise decrease the groundwater supply. Therefore, the impact is *less than significant*.

Mitigation Measures: None are required.

- c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
- i. result in substantial erosion or siltation on- or offsite;
 - ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - iv. impede or redirect flood flows?

Less Than Significant Impact. The proposed Project includes improvements to the existing WWTP. Given the highly disturbed nature of the site, the improvements are not anticipated to significantly alter the drainage pattern of the site. However, the site is designed for adequate stormwater drainage. During construction, the District would be required to obtain a Stormwater Pollution Prevention Plan to minimize erosion and potential site runoff. As such, any impacts resulting from drainage patterns would be *less than significant*.

Mitigation Measures: None are required.

- d. In flood hazard, tsunami or seiche zones, risk release of pollutants due to project inundation?
- e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. According to the Tulare County General Plan, the Project is within a base floodplain (100 year) elevation. However, the Project does not include any housing or structures that would be subject to flooding either from a watercourse or from dam inundation. There are no bodies of water near the site that would create a potential risk of hazards from seiche, tsunami or mudflow. Terminus Dam is located at the western end of Kaweah Lake, upstream from the Project area. The Project site is within the dam failure inundation zone. Dam failure can result from a number of natural and/or man-made causes, including earthquake, high flood waters, structural deficiency, and other causes. Existing protocol implemented through the area includes flood warning alert and evacuation implemented by the Tulare County Flood Control District. If there is adequate forewarning of a dam failure, access to facilities would be closed. Implementation of the existing procedures will ensure a less than significant impact related to the exposure of persons to flood risks caused by the Project.

Therefore, impacts are considered *less than significant*.

Mitigation Measures: None are required.

XI. LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

- a. Physically divide an established community?
- b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. Construction and operation of the proposed Project would not cause any land use changes in the surrounding vicinity nor would it introduce barriers that would divide and established community. The proposed Project involves improvements to the existing WWTP and does not conflict with any land use plans, policies or regulations. There are *no impacts*.

Mitigation Measures: None are required.

XII. MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

- 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?
- 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?

No Impact. There are no known mineral resources in the Project area and none are identified in the County’s General Plan near the proposed Project site. Therefore, there is *no impact*.

Mitigation Measures: None are required.

XIII. NOISE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

- a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b. Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. The nearest sensitive receptor to the wastewater treatment plant is a rural residence approximately 0.3 miles to the northeast. Once operational, the WWTP improvements will not generate noise above levels that currently exist.

Proposed Project construction related activities will involve temporary noise sources. Typical construction related equipment include graders, trenchers, small tractors and excavators. During the proposed Project construction, noise from construction related activities will contribute to the noise

environment in the immediate vicinity. Activities involved in construction will generate maximum noise levels, as indicated in Table 3, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise controls.

Table 3
Typical Construction Noise Levels

Type of Equipment	dBA at 50 ft	
	Without Feasible Noise Control	With Feasible Noise Control
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75

The distinction between short-term construction noise impacts and long-term operational noise impacts is a typical one in both CEQA documents and local noise ordinances, which generally recognize the reality that short-term noise from construction is inevitable and cannot be mitigated beyond a certain level. Thus, local agencies frequently tolerate short-term noise at levels that they would not accept for permanent noise sources. A more severe approach would be impractical and might preclude the kind of construction activities that are to be expected from time to time. Most residents recognize this reality and expect to hear construction activities on occasion.

Typical outdoor sources of perceptible ground borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be transient, random, or continuous. Construction associated with the proposed Project is earthmoving activities associated installing pipelines and installing equipment.

The approximate threshold of vibration perception is 65 VdB, while 85 VdB is the vibration acceptable only if there are an infrequent number of events per day.⁶ Table 4 describes the typical construction equipment vibration levels.

⁶ Transit Noise and Vibration Impact Assessment. Final Report No. FTA-VA-90-1003 prepared for the U.S. Federal Transit Administration by Harris Miller Miller & Hanson Inc., May 2006. Page 7-5. http://www.rtd-fastracks.com/media/uploads/nm/14_Section_38_NoiseandVibration_Part3.pdf. Accessed September 2019.

Table 4
Typical Construction Vibration Levels

Equipment	VdB at 25 ft
Small Bulldozer	58
Jackhammer	79

Vibration from construction activities will be temporary and not exceed the Federal Transit Authority threshold for the nearest sensitive receptors.

As such, any impacts resulting from an increase in noise levels or from groundborne noise levels is *less than significant*.

Mitigation Measures: None are required.

e. For a project located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. As there are no airports or airstrips in the vicinity, there is *no impact*.

Mitigation Measures: None are required.

XIV. POPULATION AND HOUSING

Would the project:

a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Responses:

- a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Less Than Significant Impact. There are no new homes associated with the proposed Project, nor would Project implementation displace people or housing. The proposed Project is needed to improve existing wastewater treatment facilities to meet statewide water quality standards. There is a *less than significant impact*.

Mitigation Measures: None are required.

XV. PUBLIC SERVICES

Would the project:

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

Police Protection?

Schools?

Parks?

Other public facilities?

Less Than Significant Impact. The proposed Project would improve the existing WWTP. The proposed Project would not directly or indirectly induce population growth and as such, will not increase demand for schools, parks, or other public facilities. Existing Tulare County fire and sheriff services will continue to maintain site safety. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

XVI. RECREATION

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses:

- 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?
- 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?

No Impact. The proposed Project does not include the construction of residential uses or recreational facilities and would not directly or indirectly induce population growth. Therefore, the proposed Project would not cause physical deterioration of existing recreational facilities from increased usage or result in the need for new or expanded recreational facilities. The Project would have *no impact* to existing parks.

Mitigation Measures: None are required.

XVII. TRANSPORTATION/ TRAFFIC

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Responses:

- a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?
- c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- d. Result in inadequate emergency access?

Less Than Significant Impact. The proposed Project includes the construction of additional components at the existing WWTP. There are no components of the proposed Project that would increase hazards due to a geometric design feature. As traffic due to construction activities would be temporary in nature, the proposed Project would not cause a substantial increase in traffic or result in inadequate emergency access. Once installed, the newly installed septic system would not generate significant additional traffic

trips per day. The new septic would require periodic but infrequent maintenance/monitoring, which would generate an insignificant amount of vehicle trips. The Project would not conflict with a program plan, ordinance, or policy addressing the circulation system and as such, impacts would be *less than significant*.

Mitigation Measures: None are required.

XVIII. TRIBAL CULTURAL RESOURCES

Would the project:

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Responses:

- a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
- i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
 - ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact. In accordance with Assembly Bill (AB) 52 and Senate Bill (SB) 18, potentially affected Tribes were formally notified of this Project and were given the opportunity to request consultation on the Project. The District's consultant contacted the Native American Heritage Commission, requesting a contact list of applicable Native American Tribes, which was provided to the consultant. Using the NAHC provided contact list, letters were sent and follow-up phone calls were made to identify Native American interests and concerns in the Project area. Documentation is included in the confidential cultural resources report that was prepared for the Project. No responses were received from any of the Tribal contacts. Therefore, there is a *less than significant impact*.

Mitigation Measures: None are required.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

- a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact with Mitigation. The Project includes improvements to the District's existing wastewater treatment plant, the results of which would not require the construction of storm water drainage, electric power, natural gas, or telecommunication facilities. The Project itself is the construction of improvements to the wastewater treatment plant and any environmental impacts resulting from the improvements are discussed within this document.

Mitigation Measures: The Project will require multiple mitigation measures as identified throughout this document.

- b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. The proposed Project includes improving the existing Lemon Cove WWTP and storage capacity. No new water supplies would be required as a result of the Project. There is *no impact*.

Mitigation Measures: None are required.

- c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. As the proposed Project includes improvements to the existing WWTP, and no component of the proposed Project would generate additional wastewater, there is *no impact*.

Mitigation Measures: None are required.

- d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
- e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. Proposed Project construction and operation will generate minimal amounts of solid waste. The proposed new septic system will be an unmanned facility and therefore

won't generate waste on an on-going basis. The proposed Project will comply with all federal, state and local statutes and regulations related to solid waste. Any impacts will be *less than significant*.

Mitigation Measures: None are required.

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Responses:

- a. Substantially impair an adopted emergency response plan or emergency evacuation plan?
- b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

- c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
- d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant Impact. The proposed Project is located within a relatively disturbed area (homes, roads, active agriculture, etc.) which precludes the risk of wildfire. The area surrounding the Project site is generally flat in nature which would limit the risk of downslope flooding and landslides, and limit any wildfire spread.

To receive building permits, the proposed Project would be required to be in compliance with the adopted emergency response plan. As such, any wildfire risk to the Project structures or people would be *less than significant*.

Mitigation Measures: None are required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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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)?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Responses:

- 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?

Less than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the proposed Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to *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)?

Less than Significant Impact. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The proposed Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc.). The impact is *less than significant*.

- c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the Project is not expected to have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to *less than significant*.

Chapter 4

MITIGATION MONITORING & REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Lemon Cove Wastewater Treatment Plant Project (Project). The MMRP lists mitigation measures recommended in the IS/MND for the proposed Project and identifies monitoring and reporting requirements.

The first column of the Table identifies the mitigation measure. The second column, entitled “Party Responsible for Implementing Mitigation,” names the party responsible for carrying out the required action. The third column, “Implementation Timing,” identifies the time the mitigation measure should be initiated. The fourth column, “Party Responsible for Monitoring,” names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last column will be used by the Lemon Cove Sanitary District to ensure that individual mitigation measures have been monitored.

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
Biology				
<p>BIO – 1 Protect nesting Swainson’s hawks</p> <ol style="list-style-type: none"> 1. To the extent practicable, construction shall be scheduled to avoid the Swainson’s hawk nesting season, which extends from March through August. 2. If it is not possible to schedule work between September and February, a qualified biologist shall conduct a survey for active Swainson’s hawk nests within 0.25 miles of the Project site no more than 14 days prior to the start of construction. If an active nest is found within 0.25 miles, and the qualified biologist determines that Project activities would disrupt nesting, a construction-free buffer or limited operating period shall be implemented in consultation with the CDFW. <p>BIO –2 Protect Nesting Birds</p> <ol style="list-style-type: none"> 1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August. 	Lemon Cove Sanitary District / Construction Contractor	Prior to and during construction	Lemon Cove Sanitary District / Construction Contractor	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
<p>If it is not possible to schedule construction between September and January, preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.</p>				

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
Cultural				
<p>CUL – 1 Should evidence of prehistoric archeological resources be discovered during construction, the contractor shall halt all work within 25 feet of the find and the resource shall be evaluated by a qualified archaeologist. If evidence of any archaeological, cultural, and/or historical deposits is found, hand excavation and/or mechanical excavation shall proceed to evaluate the deposits for determination of significance as defined by the CEQA guidelines. The archaeologist shall submit reports, to the satisfaction of the District, describing the testing program and subsequent results. These reports shall identify any program mitigation that the project proponent shall complete in order to mitigate archaeological impacts (including resource recovery and/or avoidance testing and analysis, removal, reburial, and curation of archaeological resources).</p>	Lemon Cove Sanitary District / Construction Contractor	Prior to and during construction	Lemon Cove Sanitary District / Construction Contractor	
CUL – 2	In order to ensure that the proposed project			

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
<p>does not impact buried human remains during project construction, the project proponent shall be responsible for on-going monitoring of project construction. Prior to the issuance of any grading permit, the project proponent shall provide the District with documentation identifying construction personnel that will be responsible for on-site monitoring. If buried human remains are encountered during construction, further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall be halted until the Tulare County coroner is contacted and the coroner has made the determinations and notifications required pursuant to Health and Safety Code Section 7050.5. If the coroner determines that Health and Safety Code Section 7050.5(c) require that he give notice to the Native American Heritage Commission, then such notice shall be given within 24 hours, as required by Health and Safety Code Section 7050.5(c). In that event, the NAHC will conduct the notifications required by Public Resources</p>				

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
<p>Code Section 5097.98. Until the consultations described below have been completed, the landowner shall further ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices where Native American human remains are located, is not disturbed by further development activity until the landowner has discussed and conferred with the Most Likely Descendants on all reasonable options regarding the descendants' preferences and treatments, as prescribed by Public Resources Code Section 5097.98(b). The NAHC will mediate any disputes regarding treatment of remains in accordance with Public Resources Code Section 5097.94(k). The landowner shall be entitled to exercise rights established by Public Resources Code Section 5097.98(e) if any of the circumstances established by that provision become applicable.</p>				

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
Geology / Soils				
<p>GEO – 1 In order to reduce on-site erosion due to project construction and operation, an erosion control plan and Storm Water Pollution Prevention Plan (SWPPP) shall be prepared for the site preparation, construction, and post-construction periods by a registered civil engineer or certified professional. The erosion control plan shall incorporate best management practices consistent with the requirements of the National Pollution Discharge Elimination System (NPDES). The erosion component of the plan must at least meet the requirements of the SWPPP required by the California State Water Resources Control Board.</p>	Lemon Cove Sanitary District / Construction Contractor	Prior to construction	Lemon Cove Sanitary District / Construction Contractor	

Chapter 5

PREPARERS

LIST OF PREPARERS

Crawford & Bowen Planning, Inc.

- Travis Crawford, AICP, Principal Environmental Planner
- Emily Bowen, LEED AP, Principal Environmental Planner

AM Consulting Engineers

- Alfonso Manrique, PE

Colibri Ecological Consulting, LLC.

- Jeff Davis

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- David S. Whitley, Ph.D., RPA

Appendices

Appendix A

CalEEMod Output Files

Lemon Cove WWTP Improvements Project Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	63.00	1000sqft	1.45	63,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	51
Climate Zone	7			Operational Year	2020
Utility Company					
CO2 Intensity (lb/MW hr)	0	CH4 Intensity (lb/MW hr)	0	N2O Intensity (lb/MW hr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - For construction

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Interior	94500	0
tblAreaMitigation	UseLowVOCPaintNonresidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintNonresidentialInteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	150	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	150	0

tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	200.00	150.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	4.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	NumDays	2.00	64.00
tblConstructionPhase	PhaseEndDate	10/27/2020	7/29/2020
tblConstructionPhase	PhaseEndDate	12/31/2019	12/31/2010
tblConstructionPhase	PhaseEndDate	3/31/2011	3/31/2020
tblConstructionPhase	PhaseStartDate	1/1/2011	1/2/2011
tblConstructionPhase	PhaseStartDate	4/1/2020	1/2/2020
tblConstructionPhase	PhaseStartDate	1/1/2020	1/2/2011
tblConstructionPhase	PhaseStartDate	1/1/2011	1/2/2011
tblConstructionPhase	PhaseStartDate	1/1/2011	1/2/2011
tblConstructionPhase	PhaseStartDate	1/1/2011	1/2/2020
tblGrading	AcresOfGrading	32.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	7.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	6.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00

tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2571	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1300e-003	1.1300e-003	0.0000	0.0000	1.1900e-003
Energy	6.0000e-003	0.0546	0.0458	3.3000e-004		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	59.4051	59.4051	1.1400e-003	1.0900e-003	59.7667
Mobile	0.2259	0.7892	2.5921	7.7100e-003	0.4828	0.0130	0.4958	0.1295	0.0120	0.1415	0.0000	555.0366	555.0366	0.0165	0.0000	555.3824
Waste						0.0000	0.0000		0.0000	0.0000	15.8577	0.0000	15.8577	0.9372	0.0000	35.5380
Water						0.0000	0.0000		0.0000	0.0000	4.6220	0.0000	4.6220	0.4747	0.0112	18.0660
Total	0.4889	0.8437	2.6385	8.0400e-003	0.4828	0.0171	0.4999	0.1295	0.0161	0.1457	20.4796	614.4429	634.9225	1.4295	0.0123	668.7543

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2571	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1300e-003	1.1300e-003	0.0000	0.0000	1.1900e-003
Energy	6.0000e-003	0.0546	0.0458	3.3000e-004		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	59.4051	59.4051	1.1400e-003	1.0900e-003	59.7667
Mobile	0.2259	0.7892	2.5921	7.7100e-003	0.4828	0.0130	0.4958	0.1295	0.0120	0.1415	0.0000	555.0366	555.0366	0.0165	0.0000	555.3824
Waste						0.0000	0.0000		0.0000	0.0000	15.8577	0.0000	15.8577	0.9372	0.0000	35.5380
Water						0.0000	0.0000		0.0000	0.0000	4.6220	0.0000	4.6220	0.4747	0.0112	18.0660
Total	0.4889	0.8437	2.6385	8.0400e-003	0.4828	0.0171	0.4999	0.1295	0.0161	0.1457	20.4796	614.4429	634.9225	1.4295	0.0123	668.7543

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2011	12/31/2010	5	0	
2	Grading	Grading	1/2/2011	12/31/2010	5	0	
3	Paving	Paving	1/2/2011	12/31/2010	5	0	
4	Architectural Coating	Architectural Coating	1/2/2011	12/31/2010	5	0	
5	Site Preparation	Site Preparation	1/2/2020	3/31/2020	5	64	
6	Building Construction	Building Construction	1/2/2020	7/29/2020	5	150	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 94,500; Non-Residential Outdoor: 31,500 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	174	0.41
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	6.00	174	0.41
Paving	Paving Equipment	1	8.00	130	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	5	13.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	26.00	10.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.6 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1686	0.0000	0.1686	0.0927	0.0000	0.0927	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0565	0.5742	0.4410	5.5000e-004		0.0297	0.0297		0.0274	0.0274	0.0000	48.1152	48.1152	0.0156	0.0000	48.4420
Total	0.0565	0.5742	0.4410	5.5000e-004	0.1686	0.0297	0.1984	0.0927	0.0274	0.1200	0.0000	48.1152	48.1152	0.0156	0.0000	48.4420

3.6 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	1.1800e-003	0.0111	4.0000e-005	3.1700e-003	2.0000e-005	3.1900e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.3091	2.3091	1.0000e-004	0.0000	2.3113
Total	7.3000e-004	1.1800e-003	0.0111	4.0000e-005	3.1700e-003	2.0000e-005	3.1900e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.3091	2.3091	1.0000e-004	0.0000	2.3113

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1686	0.0000	0.1686	0.0927	0.0000	0.0927	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0565	0.5742	0.4410	5.5000e-004		0.0297	0.0297		0.0274	0.0274	0.0000	48.1151	48.1151	0.0156	0.0000	48.4419
Total	0.0565	0.5742	0.4410	5.5000e-004	0.1686	0.0297	0.1984	0.0927	0.0274	0.1200	0.0000	48.1151	48.1151	0.0156	0.0000	48.4419

3.6 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3000e-004	1.1800e-003	0.0111	4.0000e-005	3.1700e-003	2.0000e-005	3.1900e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.3091	2.3091	1.0000e-004	0.0000	2.3113
Total	7.3000e-004	1.1800e-003	0.0111	4.0000e-005	3.1700e-003	2.0000e-005	3.1900e-003	8.4000e-004	2.0000e-005	8.6000e-004	0.0000	2.3091	2.3091	1.0000e-004	0.0000	2.3113

3.7 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1712	1.2740	1.2278	1.9200e-003		0.0733	0.0733		0.0702	0.0702	0.0000	159.3741	159.3741	0.0328	0.0000	160.0626
Total	0.1712	1.2740	1.2278	1.9200e-003		0.0733	0.0733		0.0702	0.0702	0.0000	159.3741	159.3741	0.0328	0.0000	160.0626

3.7 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9700e-003	0.0412	0.0716	1.6000e-004	4.3900e-003	7.3000e-004	5.1200e-003	1.2600e-003	6.7000e-004	1.9300e-003	0.0000	13.6128	13.6128	1.1000e-004	0.0000	13.6151
Worker	5.6000e-003	9.0200e-003	0.0848	2.8000e-004	0.0242	1.6000e-004	0.0243	6.4200e-003	1.5000e-004	6.5700e-003	0.0000	17.5891	17.5891	7.7000e-004	0.0000	17.6052
Total	0.0106	0.0502	0.1564	4.4000e-004	0.0285	8.9000e-004	0.0294	7.6800e-003	8.2000e-004	8.5000e-003	0.0000	31.2019	31.2019	8.8000e-004	0.0000	31.2203

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1712	1.2740	1.2278	1.9200e-003		0.0733	0.0733		0.0702	0.0702	0.0000	159.3739	159.3739	0.0328	0.0000	160.0624
Total	0.1712	1.2740	1.2278	1.9200e-003		0.0733	0.0733		0.0702	0.0702	0.0000	159.3739	159.3739	0.0328	0.0000	160.0624

3.7 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.9700e-003	0.0412	0.0716	1.6000e-004	4.3900e-003	7.3000e-004	5.1200e-003	1.2600e-003	6.7000e-004	1.9300e-003	0.0000	13.6128	13.6128	1.1000e-004	0.0000	13.6151
Worker	5.6000e-003	9.0200e-003	0.0848	2.8000e-004	0.0242	1.6000e-004	0.0243	6.4200e-003	1.5000e-004	6.5700e-003	0.0000	17.5891	17.5891	7.7000e-004	0.0000	17.6052
Total	0.0106	0.0502	0.1564	4.4000e-004	0.0285	8.9000e-004	0.0294	7.6800e-003	8.2000e-004	8.5000e-003	0.0000	31.2019	31.2019	8.8000e-004	0.0000	31.2203

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2259	0.7892	2.5921	7.7100e-003	0.4828	0.0130	0.4958	0.1295	0.0120	0.1415	0.0000	555.0366	555.0366	0.0165	0.0000	555.3824
Unmitigated	0.2259	0.7892	2.5921	7.7100e-003	0.4828	0.0130	0.4958	0.1295	0.0120	0.1415	0.0000	555.0366	555.0366	0.0165	0.0000	555.3824

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	439.11	83.16	42.84	1,281,318	1,281,318
Total	439.11	83.16	42.84	1,281,318	1,281,318

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.407130	0.071843	0.163335	0.195282	0.057212	0.008237	0.019822	0.064465	0.001813	0.001463	0.006055	0.001106	0.002238

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	6.0000e-003	0.0546	0.0458	3.3000e-004		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	59.4051	59.4051	1.1400e-003	1.0900e-003	59.7667
NaturalGas Unmitigated	6.0000e-003	0.0546	0.0458	3.3000e-004		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	59.4051	59.4051	1.1400e-003	1.0900e-003	59.7667

5.2 Energy by Land Use - NaturalGas
Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	1.11321e+006	6.0000e-003	0.0546	0.0458	3.3000e-004		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	59.4051	59.4051	1.1400e-003	1.0900e-003	59.7667
Total		6.0000e-003	0.0546	0.0458	3.3000e-004		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	59.4051	59.4051	1.1400e-003	1.0900e-003	59.7667

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	1.11321e+006	6.0000e-003	0.0546	0.0458	3.3000e-004		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	59.4051	59.4051	1.1400e-003	1.0900e-003	59.7667
Total		6.0000e-003	0.0546	0.0458	3.3000e-004		4.1500e-003	4.1500e-003		4.1500e-003	4.1500e-003	0.0000	59.4051	59.4051	1.1400e-003	1.0900e-003	59.7667

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	166320	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	166320	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2571	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1300e-003	1.1300e-003	0.0000	0.0000	1.1900e-003
Unmitigated	0.2571	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1300e-003	1.1300e-003	0.0000	0.0000	1.1900e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0110					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1300e-003	1.1300e-003	0.0000	0.0000	1.1900e-003
Total	0.2571	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1300e-003	1.1300e-003	0.0000	0.0000	1.1900e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0110					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1300e-003	1.1300e-003	0.0000	0.0000	1.1900e-003
Total	0.2571	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1300e-003	1.1300e-003	0.0000	0.0000	1.1900e-003

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.6220	0.4747	0.0112	18.0660
Unmitigated	4.6220	0.4747	0.0112	18.0660

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	14.5688 / 0	4.6220	0.4747	0.0112	18.0660
Total		4.6220	0.4747	0.0112	18.0660

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	14.5688 / 0	4.6220	0.4747	0.0112	18.0660
Total		4.6220	0.4747	0.0112	18.0660

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	15.8577	0.9372	0.0000	35.5380
Unmitigated	15.8577	0.9372	0.0000	35.5380

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	78.12	15.8577	0.9372	0.0000	35.5380
Total		15.8577	0.9372	0.0000	35.5380

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	78.12	15.8577	0.9372	0.0000	35.5380
Total		15.8577	0.9372	0.0000	35.5380

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Appendix B

Biological Evaluation Report

Biological Resource Evaluation

Lemon Cove Wastewater Treatment Plant Project

Tulare County, California



PREPARED FOR:

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Executive Summary

The Lemon Cove Sanitary District (District) proposes to upgrade wastewater treatment infrastructure for a Lemon Cove residential community of approximately 100 people. The proposed project will involve installing a 20,000-gallon septic tank and leach lines on a roughly 2.5-acre property that currently supports an open wastewater oxidation pond. A new 8-inch influent line will be installed to connect the septic tank to the existing collection system. The purpose of the project is to improve wastewater treatment at the Lemon Cove wastewater treatment plant to enable the District to adequately meet and maintain waste discharge requirements.

The County will obtain funding for the project from the Clean Water State Revolving Fund (CWSRF). The CWSRF is a state and federal partnership that helps address water quality needs. It is administered by the State of California and partially funded by the United States Environmental Protection Agency. Consequently, the project must not only meet environmental documentation and review requirements under the California Environmental Quality Act (CEQA) but must meet such requirements with respect to certain federal laws and regulations as well. This state and federal review process is known as CEQA-Plus.

To evaluate whether the project may affect biological resources under CEQA-Plus purview, we (1) obtained lists from the United States Fish and Wildlife Service, California Department of Fish and Wildlife, and California Native Plant Society of special-status species and designated and proposed critical habitat; (2) reviewed other relevant background information such as aerial images and topographic maps; and (3) conducted a field reconnaissance survey of the project site.

This biological resource evaluation summarizes (1) existing biological conditions on the project site, (2) the potential for special-status species and regulated habitats to occur on or near the project site, (3) the potential impacts of the proposed project on biological resources and regulated habitats, and (4) measures to reduce those potential impacts to less-than-significant levels. We concluded the project will have no effect on regulated habitats but could affect the state-listed as threatened Swainson's hawk (*Buteo swainsoni*). However, these effects can be reduced to less-than-significant levels with mitigation.

Abbreviations

Abbreviation	Definition
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
EFH	Essential Fish Habitat
EPA	Environmental Protection Agency
FE	Federally listed as Endangered
FESA	Federal Endangered Species Act
FP	Fully Protected
FT	Federally listed as Threatened
MBTA	Migratory Bird Treaty Act
NMFS	National Marine Fisheries Service
SC	State Candidate for listing
SE	State-listed as Endangered
SSSC	State Species of Special Concern
ST	State-listed as Threatened
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WDR	Waste Discharge Requirements
WWTP	Wastewater Treatment Plant

1.0 Introduction

1.1 Background

The District proposes to improve wastewater treatment for the community of Lemon Cove by upgrading an existing wastewater treatment plant (WWTP) system (the Project). The District will obtain financing for the Project from the Clean Water State Revolving Fund (CWSRF). Because the CWSRF is partially funded by the Environmental Protection Agency (EPA), the Project will constitute a federal action. Consequently, the environmental review for the project must meet not only state requirements under the California Environmental Quality Act (CEQA) but some federal requirements as well. To comply with applicable federal statutes and authorities, the EPA established specific “CEQA-Plus” requirements in its operating agreement with the State Water Resources Control Board, which administers the CWSRF program.

The purpose of this biological resource evaluation is to assess whether the Project will affect state- or federally protected resources pursuant to CEQA-Plus guidelines. Such resources include species of plants or animals listed or proposed for listing under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA), as well as those covered under the Migratory Bird Treaty Act (MBTA), the California Native Plant Protection Act, various other sections of the California Fish and Game Code, and the California Native Plant Society Inventory of Rare and Endangered Plants. Biological resources considered here also include designated or proposed critical habitat recognized under the FESA. This biological resource evaluation also addresses Project-related impacts to regulated habitats, which are those under the jurisdiction of the United States Army Corps of Engineers (USACE), State Water Resources Control Board, or California Department of Fish and Wildlife (CDFW), as well as those addressed under the Wild and Scenic Rivers Act, Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), and Executive Order 11988 pertaining to floodplain management.

1.2 Project Description

The Project will involve installing a 20,000-gallon (10-foot diameter x 35-foot long) septic tank, leach lines, and a 4000-square-foot leach field. The septic tank will be connected to the existing collection system with an 8-inch influent line. The Project will occur in the footprint of the existing approximately 2.5-acre WWTP system.

1.3 Project Location

The Project site is roughly 0.4 miles southwest of the intersection of Highway 198 and Highway 216, and 0.7 miles north of the census-designated place of Lemon Cove in north-central Tulare County, California (Figure 1). The Kaweah River is approximately 0.15 miles north and west. Access to the Project site is via Goodale Lane, an unmarked dirt farm road. The Project site is surrounded by citrus groves at an elevation of roughly 480 feet above mean sea level (Figure 2).

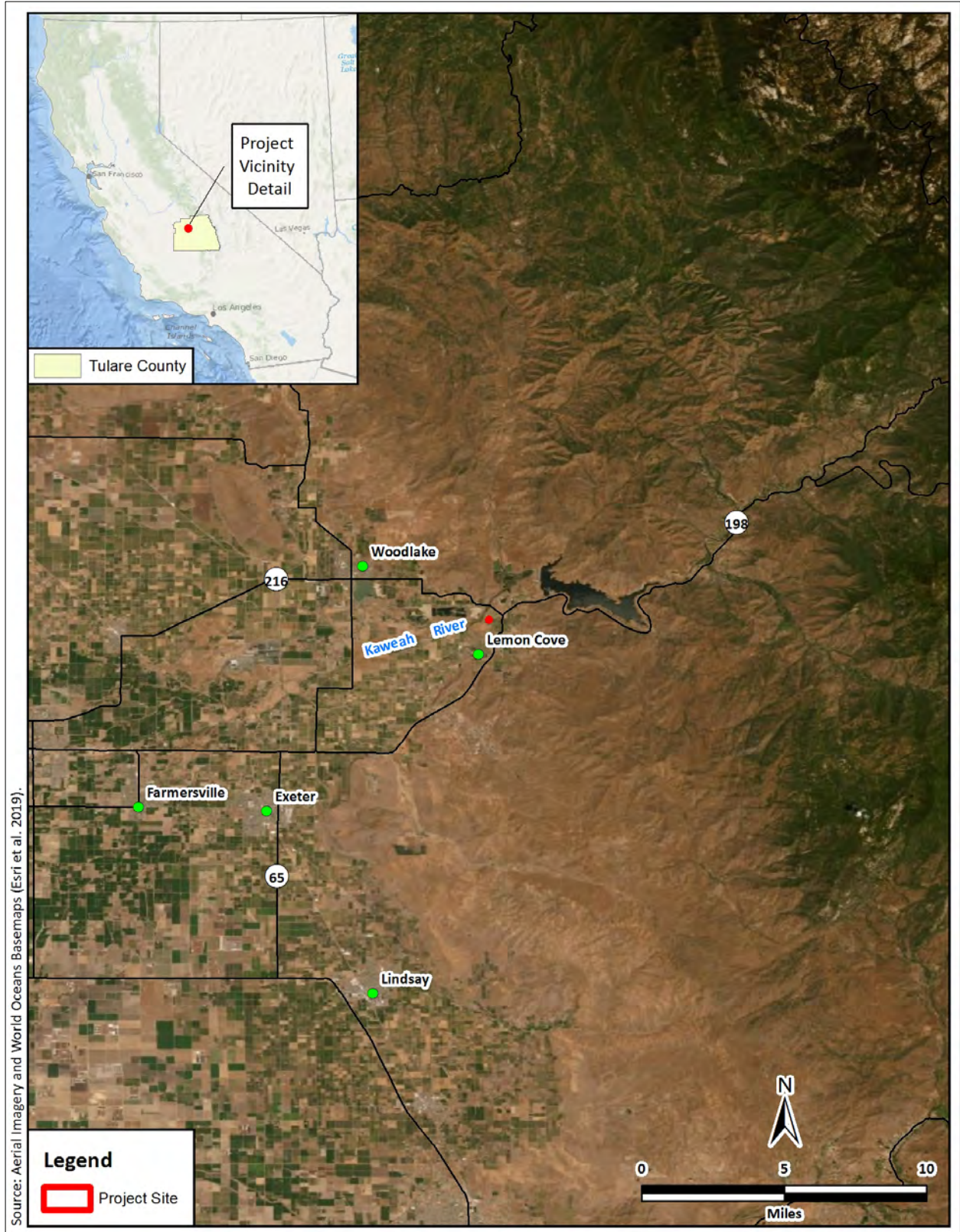


Figure 1. Site vicinity map.

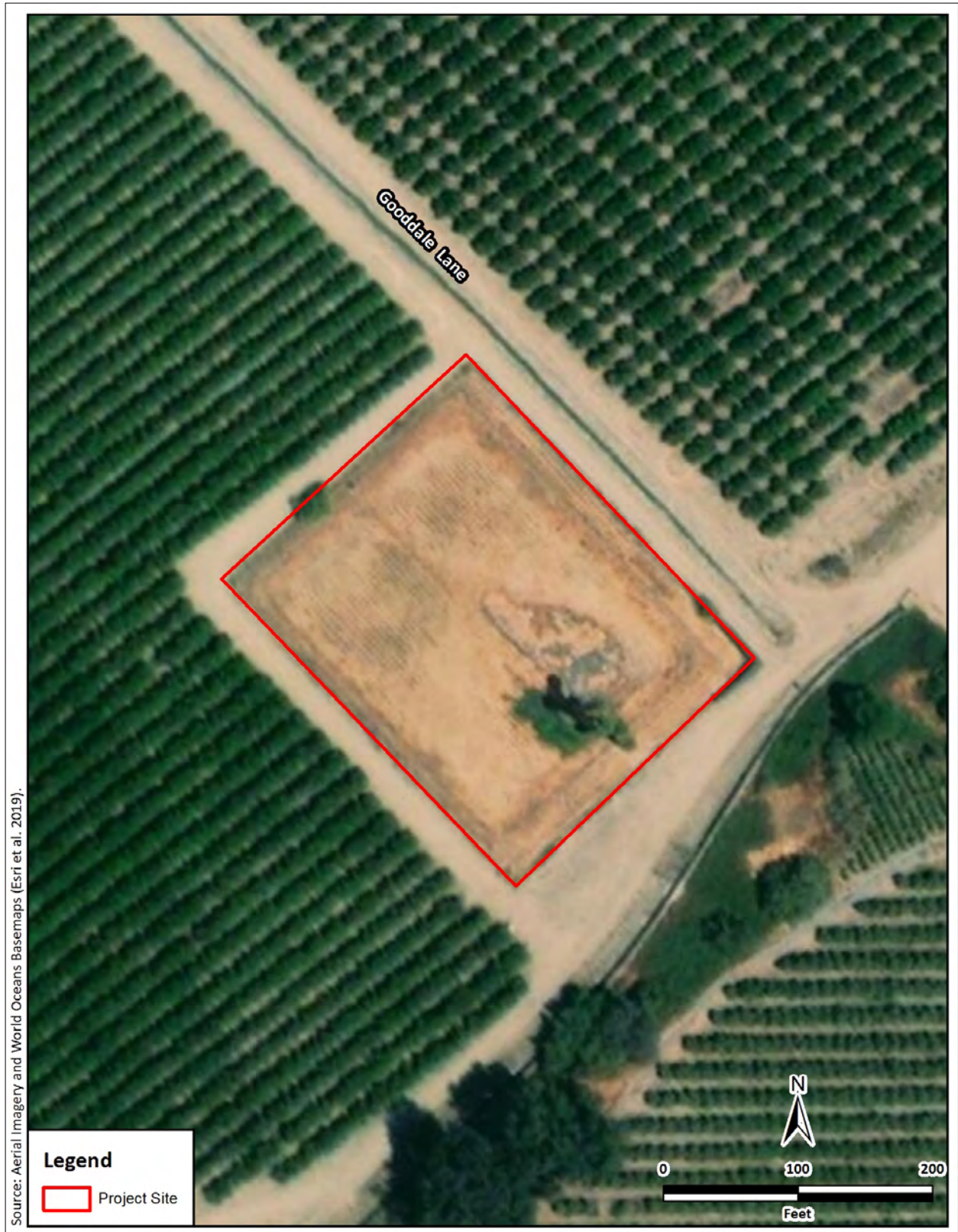


Figure 2. Project site map.

1.4 Purpose and Need of Proposed Project

The purpose of the Project is to improve wastewater treatment at the Lemon Cove WWTP by upgrading the existing wastewater treatment system to enable the District to adequately meet and maintain waste discharge requirements (WDR). The Project is needed because the oxidation pond at the existing WWTP is susceptible to weed growth, and wetting and drying cycles have caused the bentonite liner to swell and shrink, causing cracks. In September 2018, the Central Valley Regional Water Quality Control Board cited the District with WDR violations for allowing untreated wastewater to percolate and impact underlying groundwater and for failing to manage pond weeds. This Project will eliminate the need for a liner, and wastewater will instead be treated with the use of a septic system and leach fields, producing an effluent quality to meet WDR limits.

1.5 Consultation History

Lists of all species listed or proposed for listing as threatened or endangered and all designated or proposed critical habitat under the FESA that could occur near the Project site were obtained by Colibri Field Scientist Ruby Rebensdorf from the United States Fish and Wildlife Service (USFWS) website (<https://ecos.fws.gov/ipac/>) on 28 May 2019 (Appendix A).

1.6 Regulatory Framework

The relevant federal and state regulatory requirements and policies that guide the impact analysis of the Project are summarized below.

1.6.1 Federal Requirements

Federal Endangered Species Act. The USFWS and the National Oceanographic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) enforce the provisions stipulated in the Federal Endangered Species Act of 1973 (FESA, 16 United States Code [USC] § 1531 et seq.). Threatened and endangered species on the federal list (50 Code of Federal Regulations [CFR] 17.11 and 17.12) are protected from take unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct. Pursuant to the requirements of the FESA, an agency reviewing a proposed action within its jurisdiction must determine whether any federally listed species may be present in the proposed action area and determine whether the proposed action may affect such species. Under the FESA, habitat loss is considered an effect to a species. In addition, the agency is required to determine whether the proposed action is likely to jeopardize the continued existence of any species that is listed or proposed for listing under the FESA (16 USC § 1536[3],

[4]). Therefore, proposed action-related effects to these species or their habitats would be considered significant and would require mitigation.

Migratory Bird Treaty Act. The federal Migratory Bird Treaty Act (MBTA) (16 USC § 703, Supp. I, 1989) prohibits killing, possessing, trading, or other forms of take of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. “Take” is defined as the pursuing, hunting, shooting, capturing, collecting, or killing of birds, their nests, eggs, or young (16 USC § 703 and § 715n). This act encompasses whole birds, parts of birds, and bird nests and eggs. The MBTA specifically protects migratory bird nests from possession, sale, purchase, barter transport, import, and export, and take. For nests, the definition of take per 50 CFR 10.12 is to collect. The MBTA does not include a definition of an “active nest.” However, the “Migratory Bird Permit Memorandum” issued by the USFWS in 2003 clarifies the MBTA in that regard and states that the removal of nests, without eggs or birds, is legal under the MBTA, provided no possession (which is interpreted as holding the nest with the intent of retaining it) occurs during the destruction (USFWS 2003).

United States Army Corps of Engineers Jurisdiction. Areas meeting the regulatory definition of “waters of the United States” (jurisdictional waters) are subject to the jurisdiction of the United States Army Corps of Engineers (USACE) under provisions of Section 404 of the Clean Water Act (1972) and Section 10 of the Rivers and Harbors Act (1899). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as waters of the United States, tributaries of waters otherwise defined as waters of the United States, the territorial seas, and wetlands adjacent to waters of the United States (33 CFR part 328.3). Ditches and drainage canals where water flows intermittently or ephemerally are not regulated as waters of the United States. Wetlands on non-agricultural lands are identified using the *Corps of Engineers Wetlands Delineation Manual* and related Regional Supplement (USACE 1987 and 2008). Construction activities, including direct removal, filling, hydrologic disruption, or other means in jurisdictional waters are regulated by the USACE. The placement of dredged or fill material into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of state water quality certification pursuant to Section 401 of the Clean Water Act. The State Water Resources Control Board is the state agency (together with the Regional Water Quality Control Boards) charged with implementing water quality certification in California.

Wild and Scenic Rivers Act. The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 USC § 1271 et seq.) to preserve certain rivers with significant natural, cultural, and recreational values in a free-flowing condition. The Act safeguards the special character of these rivers, while also recognizing the potential for their appropriate use and development.

Magnuson-Stevens Fishery Conservation and Management Act. The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (Public law 94-265; Statutes at Large 90 Stat. 331; 16 USC Chapter 38 § 1801 et seq.) establishes a management system for national marine and estuarine fishery resources. This legislation requires that all federal agencies consult the NMFS regarding all actions or proposed actions permitted, funded, or undertaken that may adversely affect “essential fish habitat (EFH).” EFH is defined as “waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” The Magnuson-Stevens Act states that migratory routes to and from anadromous fish spawning grounds are considered EFH. The phrase “adversely affect” refers to any impact that reduces the quality or quantity of EFH. Federal activities that occur outside of EFH, but which may have an impact on EFH must also be considered. The Act applies to salmon species, groundfish species, highly migratory species such as tuna, and coastal pelagic species such as anchovies.

Executive Order 11988: Floodplain Management. Executive Order 11988 (42 Federal Register 26951, 3 CFR, 1977 Comp., p. 117) requires federal agencies to avoid to the extent possible the long-term and short-term adverse impacts associated with occupying and modifying flood plains and to avoid direct and indirect support of developing floodplains wherever there is a practicable alternative.

1.6.2 State Requirements

California Endangered Species Act. The California Endangered Species Act (CESA) of 1970 (Fish and Game Code § 2050 et seq. and California Code of Regulations (CCR) Title 14, Subsection 670.2, 670.51) prohibits the take of species listed under CESA (14 CCR Subsection 670.2, 670.5). Take is defined as hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill. Under CESA, state agencies are required to consult with the California Department of Fish and Wildlife when preparing CEQA documents. Consultation ensures that proposed projects or actions do not have a negative effect on state-listed species. During consultation, CDFW determines whether take would occur and identifies “reasonable and prudent alternatives” for the project and conservation of special-status species. CDFW can authorize take of state-listed species under Sections 2080.1 and 2081(b) of Fish and Game Code in those cases where it is demonstrated that the impacts are minimized and mitigated. Take authorized under section 2081(b) must be minimized and fully mitigated. A CESA permit must be obtained if a project will result in take of listed species, either during construction or over the life of the project. Under CESA, CDFW is responsible for maintaining a list of threatened and endangered species designated under state law (Fish and Game Code § 2070). CDFW also maintains lists of species of special concern, which serve as “watch lists.” Pursuant to the requirements of CESA, a state or local agency reviewing a proposed project within its jurisdiction must determine whether the proposed project will have a potentially significant impact upon such species. Project-related impacts to species on the CESA list would be considered significant and would require mitigation. Impacts to species of concern or fully protected species would be considered significant under certain circumstances.

California Environmental Quality Act. The California Environmental Quality Act (CEQA) of 1970 (Subsections 21000–21178) requires that CDFW be consulted during the CEQA review process regarding impacts of proposed projects on special-status species. Special-status species are defined under CEQA Guidelines subsection 15380(b) and (d) as those listed under FESA and CESA and species that are not currently protected by statute or regulation but would be considered rare, threatened, or endangered under these criteria or by the scientific community. Therefore, species considered rare or endangered are addressed in this biological resource evaluation regardless of whether they are afforded protection through any other statute or regulation. The California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity (CNPS 2017). Plants with Rare Plant Ranks 1A, 1B, 2A, or 2B are considered special-status species under CEQA.

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if it can be shown to meet certain specified criteria. These criteria have been modeled after the definition in the FESA and the section of the California Fish and Game Code dealing with rare and endangered plants and animals. Section 15380(d) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (i.e., candidate species) would occur. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agency has an opportunity to designate the species as protected, if warranted.

California Native Plant Protection Act. The California Native Plant Protection Act of 1977 (California Fish and Game Code §§ 1900–1913) requires all state agencies to use their authority to carry out programs to conserve endangered and otherwise rare species of native plants. Provisions of the act prohibit the taking of listed plants from the wild and require the project proponent to notify CDFW at least 10 days in advance of any change in land use, which allows CDFW to salvage listed plants that would otherwise be destroyed.

Nesting birds. California Fish and Game Code Sections 3503, 3503.5, and 3800 prohibit the possession, incidental take, or needless destruction of birds, their nests, and eggs. California Fish and Game Code Section 3511 lists birds that are “Fully Protected” as those that may not be taken or possessed except under specific permit.

California Department of Fish and Wildlife Jurisdiction. The CDFW has regulatory jurisdiction over lakes and streams in California. Activities that divert or obstruct the natural flow of a stream; substantially change its bed, channel, or bank; or use any materials (including vegetation) from the streambed, may require that the project applicant enter into a Streambed Alteration Agreement with the CDFW in accordance with California Fish and Game Code Section 1602.

2.0 Methods

2.1 Desktop Review

As a framework for the evaluation and reconnaissance survey, we obtained a USFWS species list for the Project (USFWS 2019, Appendix A). In addition, we searched the California Natural Diversity Data Base (CNDDDB, CDFW 2019) and the CNPS Inventory of Rare and Endangered Plants (CNPS 2019) for records of special-status plant and animal species in the Project area. Regional lists of special-status species were compiled using USFWS, CNDDDB, and CNPS database searches confined to the Woodlake 7.5-minute United States Geological Survey (USGS) topographic quad, which encompasses the Project site, and the eight surrounding quads (Stokes Mountain, Auckland, Shadequarter Mountain, Kaweah, Chicken Coop Canyon, Rocky Hill, Exeter, and Ivanhoe). Local lists of special-status species were compiled using CNDDDB records from within 5 miles of the Project site. Species that lack a special-status designation by state or federal regulatory agencies or other groups were omitted from the final list. Species for which the Project site does not provide habitat were eliminated from further consideration. We also reviewed aerial imagery from Google Earth (Google 2019) and other sources, USGS topographic maps, the Web Soil Survey (NRCS 2019), and relevant literature.

2.2 Reconnaissance Survey

Colibri Staff Scientist Joe Medley conducted a field reconnaissance survey of the Project site on 31 May 2019. The Project site and a 50-foot buffer surrounding the Project site were walked and thoroughly inspected to evaluate and document the potential for the site to support federally or state-protected resources. The survey area also included a 0.5-mile buffer around the Project site to evaluate the potential occurrence of nesting special-status raptors (Figure 3). All plants except ornamentals and all animals (vertebrate wildlife species) observed within the survey area were identified and documented. The survey area was evaluated for the presence of regulated habitats, including lakes, streams, and other waters using methods described in the *Wetlands Delineation Manual* and regional supplement (USACE 1987, 2008) and as defined by the CDFW (<https://www.wildlife.ca.gov/conservation/lisa>).

2.3 Effects Analysis and Significance Criteria

2.3.1 Effects Analysis

Factors considered in evaluating the effects of the Project on special-status species included the (1) presence of designated or proposed critical habitat in the survey area, (2) potential for the survey area to support special-status species, (3) dependence of any such species on specific habitat components that would be removed or modified, (4) the degree of impact to habitat, (5) abundance and distribution of habitat in the region, (6) distribution and population levels of the

species, (7) cumulative effects of the Project and any future activities in the area, and (8) the potential to mitigate any adverse effects.

Factors considered in evaluating the effects of the Project on migratory birds included the potential for the Project to result in (1) mortality of migratory birds or (2) loss of migratory bird nests containing viable eggs or nestlings.

Factors considered in evaluating the effects of the Project on regulated habitats included the (1) presence of features comprising or potentially comprising waters of the United States, Wild and Scenic Rivers, essential fish habitat (EFH), floodplains, and lakes or streams within the survey area, and (2) potential for the Project to impact such habitats.

2.3.2 Significance Criteria

CEQA defines “significant effect on the environment” as “a substantial, or potentially substantial, adverse change in the environment” (Pub. Res. Code § 21068). Under CEQA Guidelines Section 15065, a project's effects on biological resources are deemed significant where the project would do the following:

- a) Substantially reduce the habitat of a fish or wildlife species
- b) Cause a fish or wildlife population to drop below self-sustaining levels
- c) Threaten to eliminate a plant or animal community
- d) Substantially reduce the number or restrict the range of a rare or endangered plant or animal

In addition to the Section 15065 criteria, Appendix G within the CEQA Guidelines includes six additional impacts to consider when analyzing the effects of a project. Under Appendix G, a project's effects on biological resources are deemed significant where the project would do the following:

- e) 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 CDFW or USFWS.
- f) 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 CDFW or USFWS.
- g) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- h) 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.
- i) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- j) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

These criteria were used to determine whether the potential effects of the Project on biological resources qualify as significant.

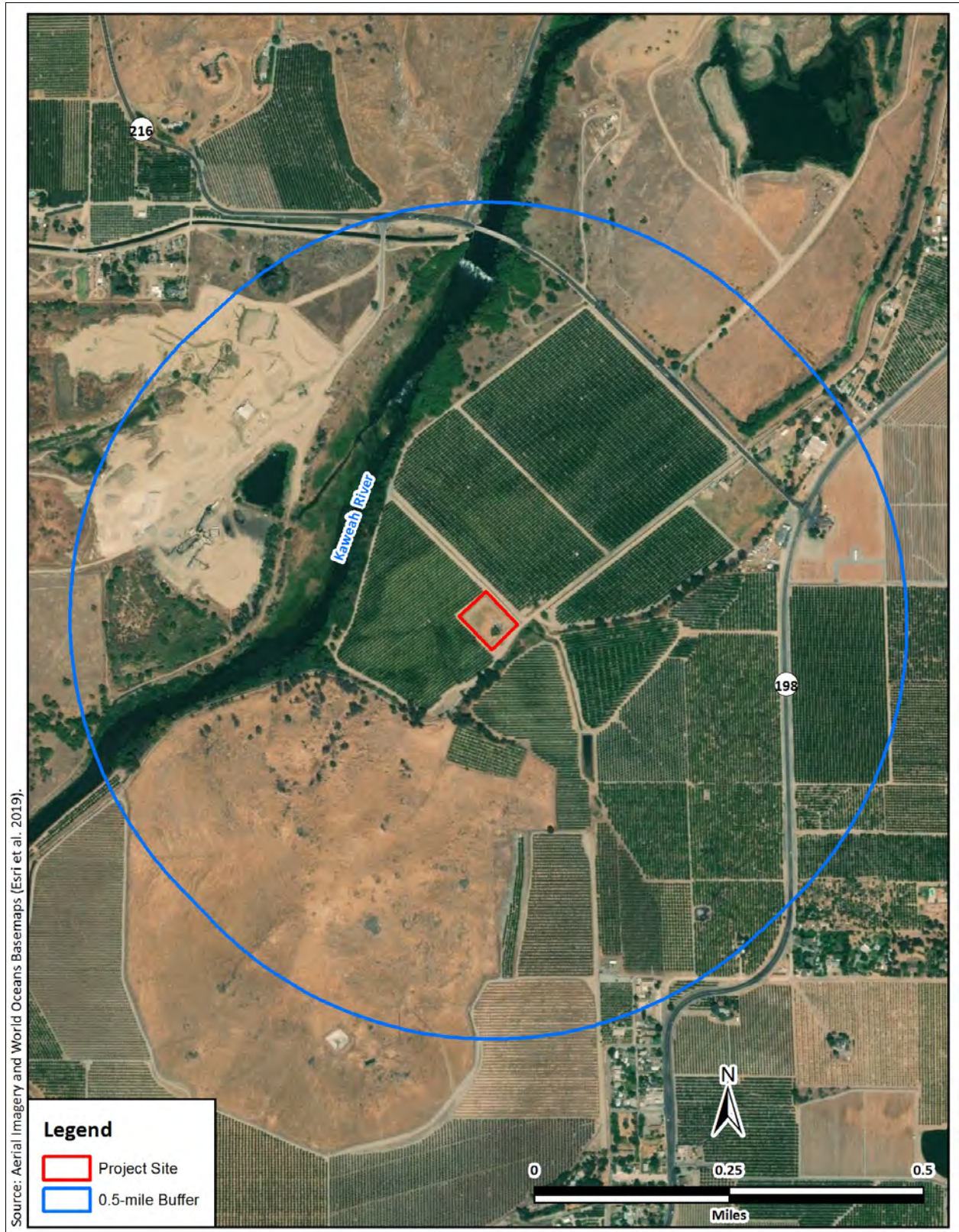


Figure 3. Reconnaissance survey area map.

3.0 Results

3.1 Desktop Review

The USFWS species list for the Project site (USFWS 2019, Table 1, Appendix A) includes 11 species listed as threatened or endangered under the FESA. Those species include the endangered Greene's tuctoria (*Tuctoria greenei*), the threatened San Joaquin adobe sunburst (*Pseudobahia peirsonii*), the threatened San Joaquin valley orcutt grass (*Orcuttia inaequalis*), the threatened delta smelt (*Hypomesus transpacificus*), the endangered conservancy fairy shrimp (*Branchinecta conservatio*), the endangered blunt-nosed leopard lizard (*Gambelia sila*), the threatened giant garter snake (*Thamnophis gigas*), the endangered California condor (*Gymnogyps californianus*), and the endangered San Joaquin kit fox (*Vulpes macrotis mutica*). None of these species could occur on or near the Project site due to either a lack of habitat, the Project site being outside the current known range of the species, or the presence of development that would otherwise preclude occurrence (Table 1). As identified in the USFWS species list (USFWS 2019, Appendix A), the Project site does not occur in USFWS-designated Critical Habitat for any species.

Searching the CNDDDB (CDFW 2019) for records of special-status species from within the Woodlake 7.5-minute USGS topographic quad and the eight surrounding quads produced 193 records of 43 species (Table 1, Appendix B). Six of these species are not given further consideration because they are not recognized as special-status species by state or federal regulatory agencies or other groups (moestan blister beetle (*Lytta moesta*), Moody's gnaphosid spider (*Talanites moodyae*), Morrison's blister beetle (*Lytta morrisoni*), Tulare cuckoo wasp (*Chrysis tularensis*), Kings River slender salamander (*Batrachoseps regius*), and great blue heron (*Ardea herodias*). Of the remaining 37 species, 15 are known from within 5 miles of the Project site (Table 1, Figure 4). None of those species are expected to occur near the Project site due to a lack of habitat (Table 1). In addition to these species, the state-listed as threatened Swainson's hawk (*Buteo swainsoni*), which was not identified in the CNDDDB search, has a low potential to occur on or near the Project site.

Searching the CNPS inventory of rare and endangered plants of California yielded 19 species (CNPS 2018, Appendix C), 16 of which have of a CRPR of 1B (Table 1). None of those species are expected to occur on or near the Project site due to a lack of habitat or a lack of observed records from within 5 miles (Table 1).

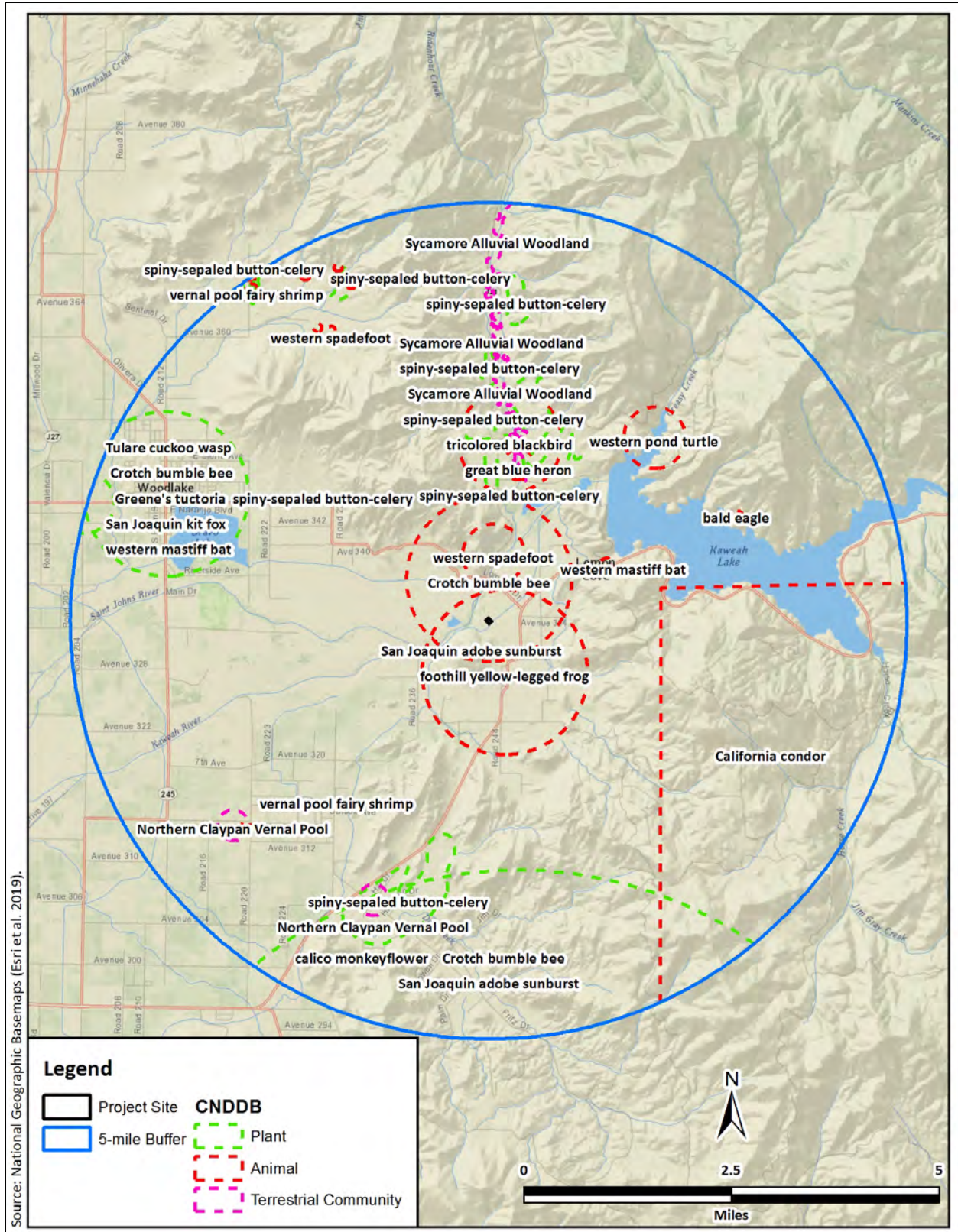


Figure 4. CNDDB occurrence map.

Table 1. Special-status species, their listing status, habitats, and potential to occur on or near the Project site.

Species	Status ¹	Habitat	Potential to Occur ²
Federally and State-Listed Endangered or Threatened Species			
Greene's tuctoria (<i>Tuctoria greenei</i>)*	FE, 1B.1	Vernal pools in open grasslands at elevations below 3500 feet.	None. Habitat lacking; no vernal pools found in the survey area.
Hoover's spurge (<i>Euphorbia hooveri</i>)	FT, 1B.2	Vernal pools.	None. Habitat lacking; no vernal pools found in the survey area.
Kaweah brodiaea (<i>Brodiaea insignis</i>)*	SE, 1B.2	Granitic or clay soils in cismontante woodland and valley and foothill grassland.	None. Record from within 5 miles, but habitat lacking at Project site.
San Joaquin adobe sunburst (<i>Pseudobahia peirsonii</i>)*	FT, SE, 1B.1	Cismontane woodland and valley and foothill grassland at 300–3000 feet elevation.	None. Habitat lacking; disturbed site conditions.
San Joaquin Valley Orcutt grass (<i>Orcuttia inaequalis</i>)	FT, SE, 1B.1	Vernal pools and wetlands below 2700 feet elevation.	None. Habitat lacking; no records from within 5 miles.
Striped adobe-lily (<i>Fritillaria striata</i>)	ST, 1B.1	Clay soils in cismontane woodland and valley and foothill grassland.	None. Habitat lacking; no records from within 5 miles.
Conservancy fairy shrimp (<i>Branchinecta conservatio</i>)	FE	Vernal pools and depressions.	None. Habitat lacking; no records from within 5 miles.
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT	Elderberry (<i>Sambucus</i> sp.) plants having basal stem diameter greater than 1" at ground level.	None. Habitat lacking; no elderberry plants found in survey area; outside current known range.
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)*	FT	Vernal pools; some artificial depressions, stock ponds, vernal swales, ephemeral drainages, and seasonal wetlands.	None. Habitat lacking; although records are known from within 5 miles, no vernal pools or seasonal wetlands were found near the Project site.

Species	Status ¹	Habitat	Potential to Occur ²
Vernal pool tadpole shrimp (<i>Lepidurus packardii</i>)	FE	Vernal pools, clay flats, alkaline pools, and ephemeral stock tanks.	None. Habitat lacking; no records from within 5 miles.
Crotch bumble bee (<i>Bombus crotchii</i>)	SCE	Grassland and scrub.	None. Habitat lacking.
Delta smelt (<i>Hypomesus transpacificus</i>)	FT, SE	River channels and tidally influenced sloughs.	None. Habitat lacking; no records from within 5 miles.
Blunt-nosed leopard lizard (<i>Gambelia sila</i>)	FE, SE, FP	Upland scrub and sparsely vegetated grassland with small mammal burrows.	None. Habitat lacking; no records from within 5 miles.
Bald eagle (<i>Haliaeetus leucocephalus</i>)*	SE, FP	Large, old-growth trees or snags near water.	None. Habitat lacking.
California Condor (<i>Gymnogyps californianus</i>)*	FE, SE	Rocky, forested regions including canyons, gorges and mountains.	None. Habitat lacking.
California red-legged frog (<i>Rana draytonii</i>)	FT, SSSC	Creeks, ponds, and marshes for breeding; burrows for upland refuge.	None. Habitat lacking; no records from within 5 miles.
California tiger salamander (<i>Ambystoma californiense</i>)	FT, ST	Vernal pools or other seasonal water sources for breeding; underground refuges for non-breeding.	None. Habitat lacking; no records from within 5 miles.
Foothill yellow-legged frog (<i>Rana boylei</i>)*	SCT	Rocky streams and rivers with rocky substrates; open, sunny banks in forests, chaparral, and woodlands.	None. Habitat lacking.
Giant garter snake (<i>Thamnophis gigas</i>)	FT, ST	Marshes, sloughs, ponds, or other permanent sources of water with emergent vegetation, and grassy banks or open areas during active season;	None. Habitat lacking; no records from within 5 miles; outside current known range.

Species	Status ¹	Habitat	Potential to Occur ²
		uplands with underground refuges or crevices during inactive season.	
Tricolored blackbird (<i>Agelaius tricolor</i>) *	ST	Freshwater emergent vegetation or prickly or spiny terrestrial vegetation for nesting; freshwater emergent wetlands, agricultural fields, irrigated pastures, grassland, and cattle feedlots for foraging.	None. Habitat lacking.
Willow flycatcher (<i>Empidonax traillii</i>)	FE, SE	Dense riparian forest.	None. Habitat lacking; no riparian forest at Project site; no records from within 5 miles.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>) *	FE, ST	Grassland and upland scrub.	None. Habitat lacking; no potential dens found in the survey area.
State Species of Special Concern			
Northern California legless lizard (<i>Anniella pulchra</i>)	SSSC	Moist warm loose soil in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, and sandy wash.	None. Habitat lacking; no suitable land cover types found in the survey area; no records from within 5 miles.
Northern leopard frog (<i>Lithobates pipiens</i>)	SSSC	Permanent ponds, swamps, marshes and slow-moving streams with abundant aquatic vegetation.	None. Habitat lacking; no breeding habitat found in survey area.
Northwestern pond turtle (<i>Actinemys marmorata</i>) *	SSSC	Ponds, rivers, marshes, streams, and irrigation ditches, usually with aquatic vegetation. Basking sites and suitable upland areas for egg laying.	None. Habitat lacking; nearby irrigation ditches lack aquatic vegetation and basking sites.

Species	Status ¹	Habitat	Potential to Occur ²
Western spadefoot (<i>Spea hammondi</i>)*	SSSC	Rain pools for breeding; nearby areas with sandy gravelly soils for upland cover.	None. Habitat lacking; no rain pools found in the survey area.
Burrowing owl (<i>Athene cunicularia</i>)	SSSC	Grassland and upland scrub with friable soil; some agricultural or other developed and disturbed areas with ground squirrel burrows.	None. No suitably sized ground squirrel burrows were found in the survey area, and foraging habitat is lacking due to surrounding citrus orchard.
American badger (<i>Taxidea taxus</i>)	SSSC	Variable. Open, dry grassland and coniferous forests, farms, meadows, marshes, desert.	None. Habitat lacking; no records from within 5 miles.
Pallid bat (<i>Antrozous pallidus</i>)	SSSC	Arid or semi-arid locations in rocky mountainous areas and sparsely vegetated grassland near water.	None. Habitat lacking; no records from within 5 miles.
Western mastiff bat (<i>Eumops perotis californicus</i>)*	SSSC	Prefers open, arid areas with high cliffs; open forests, woodlands, and grasslands for foraging.	None. Habitat lacking; no high cliffs within survey area.
California Rare Plants			
American manna grass (<i>Glyceria grandis</i>)	2B.3	Riparian streambanks, lake margins, and meadows.	None. Habitat lacking; no streams, lakes, or meadows in the survey area.
Calico monkeyflower (<i>Diplacus pictus</i>)*	1B.2	Granitic, disturbed areas in cismontane woodland.	None. Habitat lacking.
Earlimart orache (<i>Atriplex cordulata</i> var. <i>erecticaulis</i>)	1B.2	Valley and foothill grassland with saline or alkaline soil.	None. Habitat lacking; no records from within 5 miles.

Species	Status ¹	Habitat	Potential to Occur ²
Kaweah monkeyflower (<i>Erythranthe norrisii</i>)	1B.3	Carbonate, rocky soils in chaparral and cismontane woodland.	None. Habitat lacking; no records from within 5 miles.
Lesser saltscale (<i>Atriplex minuscula</i>)	1B.1	Chenopod scrub, playa, and grassland communities with sandy, alkaline soil.	None. Habitat lacking; no records from within 5 miles.
Madera leptosiphon (<i>Leptosiphon serrulatus</i>)	1B.2	Woodland and chaparral openings at 980–4300 feet elevation.	None. Habitat lacking; no suitable land cover types; Project site below elevational range.
Mouse buckwheat (<i>Eriogonum nudum</i> var. <i>murinum</i>)	1B.2	Sandy soils in chaparral, cismontane woodland, and valley and foothill grassland.	None. Habitat lacking; no records from within 5 miles.
Recurved larkspur (<i>Delphinium recurvatum</i>)*	1B.2	Chenopod scrub, cismontane woodland, and valley and foothill grassland.	None. Habitat lacking.
Sanford's arrowhead (<i>Sagittaria sanfordii</i>)	1B.2	Freshwater marsh and wetlands below 1000 feet elevation.	None. Habitat lacking; no wetlands found near Project site.
Sierra Nevada monkeyflower (<i>Erythranthe sierrae</i>)	4.2	Granitic soils in vernal wet depressions and along edges of creeks at 650–6900 feet elevation.	None. Habitat lacking; no records from within 5 miles; Project site is below elevational range.
Spiny-sepaled button-celery (<i>Eryngium spinosepalum</i>)*	1B.2	Vernal pools, swales, and roadside ditches at 330–4200 feet elevation.	None. Habitat lacking; no vernal pools, swales, or suitable ditches found near Project site.
Vernal barley (<i>Hordeum intercedens</i>)	3.2	Vernal pools, coastal dunes, coastal scrub, and saline flats and depressions in valley and foothill grassland.	None. Habitat lacking; no records from within 5 miles.
Vernal pool smallscale (<i>Atriplex persistens</i>)	1B.2	Alkaline vernal pools.	None. Habitat lacking; no records from within 5 miles.

Species	Status ¹	Habitat	Potential to Occur ²
Winter's sunflower (<i>Helianthus winteri</i>)	1B.2	Cismontane woodland and valley and foothill grassland.	None. Habitat lacking; no records from within 5 miles.

CDFW (2019), CNPS (2019), USFWS (2019b).

*: CNDDDB occurrence record within 5 miles of Project site.

Status ¹	Potential to Occur ²
CNDDDB = Recognized by the CNDDDB, other state or federal agencies, or conservation groups as rare or imperiled.	None: Species or sign not observed; conditions unsuitable for occurrence.
FE = Federally listed Endangered	
FT = Federally listed Threatened	
FP = Fully Protected	
SCE = State Candidate for listing as Endangered	
SE = State-listed Endangered	
ST = State-listed Threatened	
SSSC = State Species of Special Concern	

CNPS California Rare Plant Rank ¹ :	Threat Ranks ¹ :
1A – plants presumed extirpated in California and either rare or extinct elsewhere.	0.1 – seriously threatened in California (> 80% of occurrences).
1B – plants rare, threatened, or endangered in California and elsewhere.	0.2 – moderately threatened in California (20-80% of occurrences).
2B – plants rare, threatened, or endangered in California but more common elsewhere.	0.3 – not very threatened in California (<20% of occurrences).
3 – plants about which more information is needed.	
4 – plants have limited distribution in California.	

3.2 Reconnaissance Survey

3.2.1 Land Use and Habitats

The Project site consists of an existing 2.5-acre, fenced, two-celled bentonite-sealed oxidation pond at the Lemon Cove WWTP (Figures 2, 5, and 6). The oxidation pond was largely dry at the time of the reconnaissance survey and was dominated by nonnative, ruderal vegetation, including red brome (*Bromus madritensis* ssp. *rubens*), ripgut brome (*Bromus diandrus*), and big heron bill (*Erodium botrys*). The banks surrounding the oxidation pond supported clusters of

pocket-gopher burrows. A dirt access road and citrus orchards surrounded all four sides of the oxidation pond (Figure 6). Foothill Ditch, a concrete-lined agricultural ditch fed from the Kaweah River, is roughly 35 feet south of the Project site (Figure 7). Foothill Ditch contained flowing water at the time of the reconnaissance survey. A dry, concrete riprap-lined canal was 20 feet east of the Project Site (Figure 8). The Kaweah River is about 0.15 miles west and north of the site. The base of Wutchumna Hill is roughly 0.15 miles southwest of the Project site. The Project site is underlain by 90% Tujunga sand soil, alluvial fans (NRCS 2019).



Figure 5. Photograph showing the WWTP oxidation pond.



Figure 6. Photograph showing the Project site surrounded by dirt access roads and citrus orchards.



Figure 7. Photograph showing Foothill Ditch 35 feet south of the Project site.



Figure 8. Photograph showing a concrete riprap-lined irrigation canal 20 feet east of the Project site.

3.2.2 Plant and Animal Species Observed

A total of 27 plant species (10 native, 16 nonnative, and one unknown) were found during the reconnaissance survey (Table 2). One reptile species and 13 bird species were also observed (Table 2).

Table 2. Plant and animal species observed during the reconnaissance survey.

Common Name	Scientific Name	Status
Plants		
Family Adoxaceae		
Blue elderberry	<i>Sambucus nigra ssp. caerulea</i>	Native
Family Arecaceae		
Mexican fan palm	<i>Washingtonia robusta</i>	Nonnative
Family Asteraceae		
Canada horseweed	<i>Erigeron canadensis</i>	Native
Common dandelion	<i>Taraxacum officinale</i>	Nonnative
Common gumplant	<i>Grindelia camporum</i>	Native

Featherweed	<i>Gamochaeta ustulata</i>	Native
Milk thistle	<i>Silybum marianum</i>	Nonnative
Prickly sow thistle	<i>Sonchus asper</i>	Nonnative
Prickly lettuce	<i>Lactuca serriola</i>	Nonnative
Family Brassicaceae		
Field mustard	<i>Brassica rapa</i>	Nonnative
Family Chenopodiaceae		
Lamb's quarters	<i>Chenopodium album</i>	Nonnative
Family Cucurbitaceae		
Coyote gourd	<i>Cucurbita palmata</i>	Native
Family Euphorbiaceae		
Dove weed	<i>Croton setigerus</i>	Native
Family Fagaceae		
Blue oak	<i>Quercus douglasii</i>	Native
Family Geraniaceae		
Big heron bill	<i>Erodium botrys</i>	Nonnative
Family Malvaceae		
Cheeseweed mallow	<i>Malva parviflora</i>	Nonnative
Family Poaceae		
Foxtail	<i>Hordeum leporinum</i>	Nonnative
Johnsongrass	<i>Sorghum halepense</i>	Nonnative
Red brome	<i>Bromus madritensis ssp. rubens</i>	Nonnative
Ripgut brome	<i>Bromus diandrus</i>	Nonnative
Salt grass	<i>Distichlis spicata</i>	Native
Wild oat	<i>Avena fatua</i>	Nonnative
Family Solanaceae		
Jimson weed	<i>Datura wrightii</i>	Native
Tree tobacco	<i>Nicotiana glauca</i>	Nonnative
Family Tamaricaceae		
Chinese tamarisk	<i>Tamarix chinensis</i>	Nonnative
Family Typhaceae		
Cattail	<i>Typha sp.</i>	Unknown
Family Vitaceae		
California grape	<i>Vitis californica</i>	Native
Reptiles		
Family Phrynosomatidae		
Northwestern fence-lizard	<i>Sceloporus occidentalis</i>	None
Birds		
Family Aegithalidae		
Bushtit	<i>Psaltriparus minimus</i>	MBTA, CFGC
Family Corvidae		

California scrub-jay	<i>Aphelocoma californica</i>	MBTA, CFGC
Common raven	<i>Corvus corax</i>	MBTA, CFGC
Family Falconidae		
American kestrel	<i>Falco sparverius</i>	MBTA, CFGC
Family Fringillidae		
House finch	<i>Haemorhous mexicanus</i>	MBTA, CFGC
Lesser goldfinch	<i>Spinus psaltria</i>	MBTA, CFGC
Family Icteridae		
Brewer's blackbird	<i>Euphagus cyanocephalus</i>	MBTA, CFGC
Brown-headed cowbird	<i>Molothrus ater</i>	MBTA, CFGC
Family Passerellidae		
California towhee	<i>Melospiza crissalis</i>	MBTA, CFGC
Family Picidae		
Northern flicker	<i>Colaptes auratus</i>	MBTA, CFGC
Family Trochilidae		
Anna's hummingbird	<i>Calypte anna</i>	MBTA, CFGC
Family Tyrannidae		
Black phoebe	<i>Sayornis nigricans</i>	MBTA, CFGC
Western kingbird	<i>Tyrannus verticalis</i>	MBTA, CFGC

MBTA = Protected under the Migratory Bird Treaty Act (16 USC § 703 et seq.); CFGC = Protected under the California Fish and Game Code (FGC §§ 3503 and 3513).

3.2.3 Special-Status Species

The state-listed as threatened Swainson's hawk could occur on or near the Project site. Swainson's hawk uses open areas such as grassland and some agricultural fields for foraging and medium to large trees near open areas for nesting. Large blue oaks and trees along the Kaweah River and Foothill Ditch could support nesting Swainson's hawks, and grassland foraging habitat is present within 0.5 miles of the Project site.

3.2.4 Nesting Birds and the Migratory Bird Treaty Act

Migratory birds could nest on or near the Project site. Such species include, but are not limited to, common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), mourning dove (*Zenaidura macroura*), and red-tailed hawk (*Buteo jamaicensis*).

3.2.5 Regulated Habitats

Three potentially regulated habitats, Foothill Ditch (35 feet south of the Project site) and a dry, concrete riprap-lined irrigation canal (20 feet east of the Project site) were found in the survey area. However, no impacts to these features are anticipated as the project footprint is contained within the existing WWTP.

According to the Wild and Scenic Rivers Act, the Kaweah River does not retain a wild and scenic classification (USFWS 2019a).

No marine or estuarine fishery resources or migratory routes to and from anadromous fish spawning grounds were present in the survey area. In addition, no EFH, defined by the Magnuson-Stevens Act as those resources necessary for fish spawning, breeding, feeding, or growth to maturity, were present in the survey area.

The Project site is within Zone X; an area of minimal flood hazard (Federal Emergency Management Agency 2019). The nearest flood plain limit is about 300 feet east of the Project site, associated with the Kaweah River.

4.0 Environmental Impacts

4.1 Effects Determinations

4.1.1 Critical Habitat

We conclude the Project will have **no effect** on designated or proposed critical habitat as no critical habitat has been designated or proposed on or near the Project site.

4.1.2 Special-Status Species

We conclude the Project **may affect but is not likely to adversely affect** the state-listed as threatened Swainson's hawk. The Project is not expected to affect any other special-status species due to the lack of habitat or known occurrence records for those species near the Project site.

4.1.3 Migratory Birds

We conclude the Project **may affect but is not likely to adversely affect** nesting migratory birds.

4.1.4 Regulated Habitats

We conclude the project will have **no effect** on regulated habitats as the Project footprint is contained within the existing WWTP.

4.2 Significance Determinations

This Project, which will result in permanent and temporary impacts to previously developed land, will not: (1) substantially reduce the habitat of a fish or wildlife species (criterion a) as developed land is regionally abundant and ubiquitous; (2) cause a fish or wildlife population to drop below self-sustaining levels (criterion b) as no such potentially vulnerable population is known from the area; (3) threaten to eliminate a plant or animal community (criterion c) as no such potentially vulnerable communities are known from the area; (4) substantially reduce the number or restrict the range of a rare or endangered plant or animal (criterion d) as no such potentially vulnerable species are known from the area; (5) 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 CDFW or USFWS (criterion f) as no riparian habitat or other sensitive natural community was present in the survey area; (6) have a substantial adverse effect on wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (criterion g) as no impacts to wetlands will occur; (7) conflict with

any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (criterion i) as no trees or biologically sensitive areas will be impacted; or (8) conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan (criterion j) as no such plan has been adopted. Thus, these significance criteria are not analyzed further.

The remaining statutorily defined criteria provided the framework for criteria BIO1 and BIO2 below. These criteria are used to assess the impacts to biological resources stemming from the Project and provide the basis for determinations of significance:

- Criterion BIO1: 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 CDFW or USFWS (significance criterion e).
- Criterion BIO2: 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 (significance criterion h).

4.2.1 Direct and Indirect Impacts

4.2.1.1 Potential Impact #1: Have a Substantial Effect on any Special-Status Species (Criterion BIO1)

The Project could substantially impact the state-listed as threatened Swainson's hawk, which could nest near the Project site. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs, nestlings, or young, or otherwise lead to nest abandonment for Swainson's hawk. Loss of fertile eggs, nestlings, or young or any activities resulting in nest abandonment would constitute a significant impact. We recommend that Mitigation Measure BIO-1 (below) be included in the conditions of approval to reduce the potential impact to a less-than-significant level.

Mitigation Measure BIO-1. Protect nesting Swainson's hawks.

1. To the extent practicable, construction shall be scheduled to avoid the Swainson's hawk nesting season, which extends from March through August.
2. If it is not possible to schedule work between September and February, a qualified biologist shall conduct a survey for active Swainson's hawk nests within 0.5 miles of the Project site no more than 14 days prior to the start of construction. If an active nest is found within 0.5 miles, and the qualified biologist determines that Project activities would disrupt nesting, a construction-free buffer or limited operating period shall be implemented in consultation with the CDFW.

4.2.1.2 Potential Impact #2: Interfere Substantially with Native Wildlife Movements, Corridors, or Nursery Sites (Criterion BIO2)

The Project could impede the use of nursery sites for native birds protected under the Migratory Bird Treaty Act and California Fish and Game Code. Migratory birds are expected to nest on and near the Project site. 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 or loss of reproductive effort is considered take by the CDFW. Loss of fertile eggs or nestlings, or any activities resulting in nest abandonment, could constitute a significant impact if the species is particularly rare in the region. We recommend that the mitigation measure BIO-2 (below) be included in the conditions of approval to reduce the potential impact to a less-than-significant level.

Mitigation Measure BIO-2. Protect nesting birds.

1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.
2. If it is not possible to schedule construction between September and January, pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

4.2.2 Cumulative Impacts

The Project involves updating WWTP infrastructure to meet WDR in the community of Lemon Cove. Although most land surrounding the Project site is developed and disturbed by agricultural operations, large trees near the Project site could provide nesting habitat for the state-listed as threatened Swainson's hawk. Nevertheless, Mitigation Measures BIO-1 through BIO-2 would reduce any contribution to cumulative impacts on biological resources to a less-than-significant level.

5.0 Literature Cited

- California Department of Fish and Wildlife (CDFW). 2018. State and Federally Listed Endangered, Threatened, and Rare Plants of California. Biogeographic data branch, California Natural Diversity Data Base. <https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data>. Accessed 28 May 2019.
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Appendix A. USFWS list of threatened and endangered species and critical habitats.



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:

May 28, 2019

Consultation Code: 08ESMF00-2019-SLI-2037

Event Code: 08ESMF00-2019-E-06504

Project Name: Lemon Cove Wastewater Treatment Plant Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2019-SLI-2037

Event Code: 08ESMF00-2019-E-06504

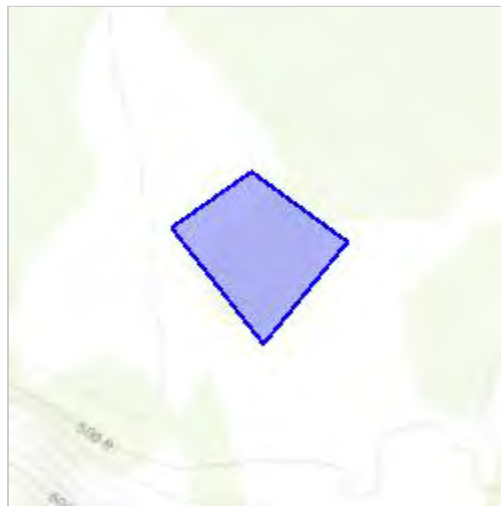
Project Name: Lemon Cove Wastewater Treatment Plant Project

Project Type: WASTEWATER FACILITY

Project Description: This Project will involve installing a 20,000-gallon septic tank (10 feet diameter x 35 feet long tank) and leach lines to connect to a 4,000-square foot leach field. This will occur at an existing WWTP system located on a bentonite-lined oxidation pond where wastewater currently flows and infiltrates the ground. The leach field will be constructed where the pond is currently located. The septic tank will be connected to the existing collection system with an 8-inch influent line.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/36.39308989896354N119.02899897844176W>



Counties: Tulare, CA

Endangered Species Act Species

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
California Condor <i>Gymnogyps californianus</i> Population: U.S.A. only, except where listed as an experimental population There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered

Flowering Plants

NAME	STATUS
<p>Greene's Tuctoria <i>Tuctoria greenei</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1573</p>	Endangered
<p>San Joaquin Adobe Sunburst <i>Pseudobahia peirsonii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2931</p>	Threatened
<p>San Joaquin Orcutt Grass <i>Orcuttia inaequalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5506</p>	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Appendix B. CNDDDB occurrence records.



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Woodlake (3611941) OR Stokes Mtn. (3611952) OR Auckland (3611951) OR Shadequarter Mtn. (3611858) OR Kaweah (3611848) OR Chickencoop Canyon (3611838) OR Rocky Hill (3611931) OR Exeter (3611932) OR Ivanhoe (3611942)) AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects OR Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes OR Fungi)

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Agelaius tricolor</i> tricolored blackbird	G2G3 S1S2	None Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	505 540	952 S:2	0	0	0	0	0	2	0	2	2	0	0
<i>Ambystoma californiense</i> California tiger salamander	G2G3 S2S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	345 347	1196 S:2	0	1	1	0	0	0	1	1	2	0	0
<i>Anniella pulchra</i> northern California legless lizard	G3 S3	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	377 1,000	375 S:2	1	0	0	0	0	1	1	1	2	0	0
<i>Antrozous pallidus</i> pallid bat	G5 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	368 368	419 S:1	1	0	0	0	0	0	0	1	1	0	0
<i>Ardea herodias</i> great blue heron	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	500 500	155 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Athene cunicularia</i> burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	343 343	1984 S:1	1	0	0	0	0	0	0	1	1	0	0
<i>Atriplex cordulata var. erecticaulis</i> Earlimart orache	G3T1 S1	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	335 335	21 S:1	1	0	0	0	0	0	0	1	1	0	0



Summary Table Report
California Department of Fish and Wildlife
California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Atriplex minuscula</i> lesser saltscale	G2 S2	None None	Rare Plant Rank - 1B.1	335 335	52 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Atriplex persistens</i> vernal pool smallscale	G2 S2	None None	Rare Plant Rank - 1B.2	345 355	41 S:2	2	0	0	0	0	0	0	2	2	0	0
<i>Batrachoseps regius</i> Kings River slender salamander	G2 S2S3	None None	IUCN_VU-Vulnerable USFS_S-Sensitive	2,000 5,500	14 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Bombus crotchii</i> Crotch bumble bee	G3G4 S1S2	None None		450 1,000	234 S:5	0	0	0	0	0	5	5	0	5	0	0
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	G3 S3	Threatened None	IUCN_VU-Vulnerable	335 950	767 S:19	2	3	0	0	0	14	6	13	19	0	0
<i>Brodiaea insignis</i> Kaweah brodiaea	G1 S1	None Endangered	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	560 3,300	27 S:11	2	4	2	0	0	3	10	1	11	0	0
<i>Chrysis tularensis</i> Tulare cuckoo wasp	G1G2 S1S2	None None		450 450	5 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Delphinium recurvatum</i> recurved larkspur	G2? S2?	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	340 440	100 S:3	0	0	0	0	1	2	1	2	2	0	1
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	G3T2 S2	Threatened None		405 960	271 S:2	0	0	1	0	0	1	2	0	2	0	0
<i>Diplacus pictus</i> calico monkeyflower	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	600 600	73 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Empidonax traillii</i> willow flycatcher	G5 S1S2	None Endangered	IUCN_LC-Least Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	570 570	90 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Emys marmorata</i> western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	70 1,000	1367 S:3	0	0	0	0	0	3	3	0	3	0	0
<i>Eriogonum nudum var. murinum</i> mouse buckwheat	G5T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,280 3,400	11 S:4	0	0	0	0	0	4	4	0	4	0	0



Summary Table Report

California Department of Fish and Wildlife California Natural Diversity Database



Name (Scientific/Common)	CNDDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Eryngium spinosepalum</i> spiny-sepaled button-celery	G2 S2	None None	Rare Plant Rank - 1B.2	335 2,000	108 S:20	3	9	2	0	1	5	11	9	19	1	0
<i>Erythranthe norrisii</i> Kaweah monkeyflower	G2 S2	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive USFS_S-Sensitive	1,200 2,700	8 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Eumops perotis californicus</i> western mastiff bat	G5T4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern WBWG_H-High Priority	450 940	296 S:5	0	0	0	0	0	5	5	0	5	0	0
<i>Euphorbia hooveri</i> Hoover's spurge	G1 S1	Threatened None	Rare Plant Rank - 1B.2	335 345	29 S:2	0	0	2	0	0	0	0	2	2	0	0
<i>Fritillaria striata</i> striped adobe-lily	G1 S1	None Threatened	Rare Plant Rank - 1B.1 BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture USFS_S-Sensitive		23 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Glyceria grandis</i> American manna grass	G5 S3	None None	Rare Plant Rank - 2B.3		10 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Gymnogyps californianus</i> California condor	G1 S1	Endangered Endangered	CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_CR-Critically Endangered NABCI_RWL-Red Watch List	1,000 1,000	13 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Haliaeetus leucocephalus</i> bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	912 912	327 S:1	0	1	0	0	0	0	0	1	1	0	0
<i>Helianthus winteri</i> Winter's sunflower	G2? S2?	None None	Rare Plant Rank - 1B.2	460 2,500	55 S:32	6	20	4	1	0	1	0	32	32	0	0



Summary Table Report
California Department of Fish and Wildlife
California Natural Diversity Database



Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	G4 S3S4	Endangered None	IUCN_EN-Endangered	340 345	324 S:2	0	1	0	0	0	1	1	1	2	0	0
<i>Leptosiphon serrulatus</i> Madera leptosiphon	G3 S3	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	1,000 3,500	27 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Lithobates pipiens</i> northern leopard frog	G5 S2	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern		22 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Lytta moesta</i> moestan blister beetle	G2 S2	None None		1,000 1,000	12 S:1	0	0	0	0	0	1	1	0	0	1	0
<i>Lytta morrisoni</i> Morrison's blister beetle	G1G2 S1S2	None None		960 960	10 S:1	0	0	0	0	0	1	1	0	0	1	0
<i>Orcuttia inaequalis</i> San Joaquin Valley Orcutt grass	G1 S1	Threatened Endangered	Rare Plant Rank - 1B.1	515 515	47 S:1	0	0	0	0	1	0	1	0	0	0	1
<i>Pseudobahia peirsonii</i> San Joaquin adobe sunburst	G1 S1	Threatened Endangered	Rare Plant Rank - 1B.1 SB_RSABG-Rancho Santa Ana Botanic Garden	600 1,420	51 S:3	0	0	0	1	0	2	3	0	3	0	0
<i>Rana boylei</i> foothill yellow-legged frog	G3 S3	None Candidate Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	520 2,211	2379 S:10	0	0	0	0	10	0	10	0	0	0	10
<i>Sagittaria sanfordii</i> Sanford's arrowhead	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	400 400	126 S:1	0	0	1	0	0	0	0	1	1	0	0
<i>Spea hammondi</i> western spadefoot	G3 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	0 743	907 S:28	0	26	1	0	0	1	2	26	28	0	0
<i>Talanites moodyae</i> Moody's gnaphosid spider	G1G2 S1S2	None None		400 1,200	6 S:4	0	0	0	0	0	4	4	0	4	0	0
<i>Taxidea taxus</i> American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	370 370	589 S:1	0	0	1	0	0	0	1	0	1	0	0



Summary Table Report

California Department of Fish and Wildlife California Natural Diversity Database



Name (Scientific/Common)	CNDDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence			
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.	
<i>Tuctoria greenei</i> Greene's tuctoria	G1 S1	Endangered Rare	Rare Plant Rank - 1B.1	450 450	50 S:1	0	0	0	0	1	0	1	0	0	0	0	1
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	G4T2 S2	Endangered Threatened		345 720	1017 S:7	0	0	0	0	0	7	7	0	7	0	0	0

Appendix C. CNPS plant list.



*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Inventory of Rare and Endangered Plants

Plant List

19 matches found. *Click on scientific name for details*

Search Criteria
Found in Quads 3611952, 3611951, 3611858, 3611942, 3611941, 3611848, 3611932 3611931 and 3611838;

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Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Atriplex cordulata var. erecticaulis	Earlimart orache	Chenopodiaceae	annual herb	Aug-Sep(Nov)	1B.2	S1	G3T1
Atriplex minuscula	lesser saltscale	Chenopodiaceae	annual herb	May-Oct	1B.1	S2	G2
Atriplex persistens	vernal pool smallscale	Chenopodiaceae	annual herb	Jun, Aug, Sep, Oct	1B.2	S2	G2
Brodiaea insignis	Kaweah brodiaea	Themidaceae	perennial bulbiferous herb	Apr-Jun	1B.2	S1	G1
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	1B.2	S2?	G2?
Diplacus pictus	calico monkeyflower	Phrymaceae	annual herb	Mar-May	1B.2	S2	G2
Eriogonum nudum var. murinum	mouse buckwheat	Polygonaceae	perennial herb	Jun-Nov	1B.2	S2	G5T2
Eryngium spinosepalum	spiny-sepaled button-celery	Apiaceae	annual / perennial herb	Apr-Jun	1B.2	S2	G2
Erythranthe norrisii	Kaweah monkeyflower	Phrymaceae	annual herb	Mar-May	1B.3	S2	G2
Erythranthe sierrae	Sierra Nevada monkeyflower	Phrymaceae	annual herb	Mar-Jul	4.2	S2	G2
Euphorbia hooveri	Hoover's spurge	Euphorbiaceae	annual herb	Jul-Sep(Oct)	1B.2	S1	G1
Glyceria grandis	American manna grass	Poaceae	perennial rhizomatous herb	Jun-Aug	2B.3	S3	G5
Helianthus winteri	Winter's sunflower	Asteraceae	perennial shrub	Jan-Dec	1B.2	S2?	G2?
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	3.2	S3S4	G3G4
Leptosiphon serrulatus	Madera leptosiphon	Polemoniaceae	annual herb	Apr-May	1B.2	S3	G3

<u>Orcuttia inaequalis</u>	San Joaquin Valley Orcutt grass	Poaceae	annual herb	Apr-Sep	1B.1	S1	G1
<u>Pseudobahia peirsonii</u>	San Joaquin adobe sunburst	Asteraceae	annual herb	Feb-Apr	1B.1	S1	G1
<u>Sagittaria sanfordii</u>	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	1B.2	S3	G3
<u>Tuctoria greenei</u>	Greene's tuctoria	Poaceae	annual herb	May-Jul(Sep)	1B.1	S1	G1

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Questions and Comments

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Appendix C

Cultural Resources Inventory

(Under separate cover due to confidential material)