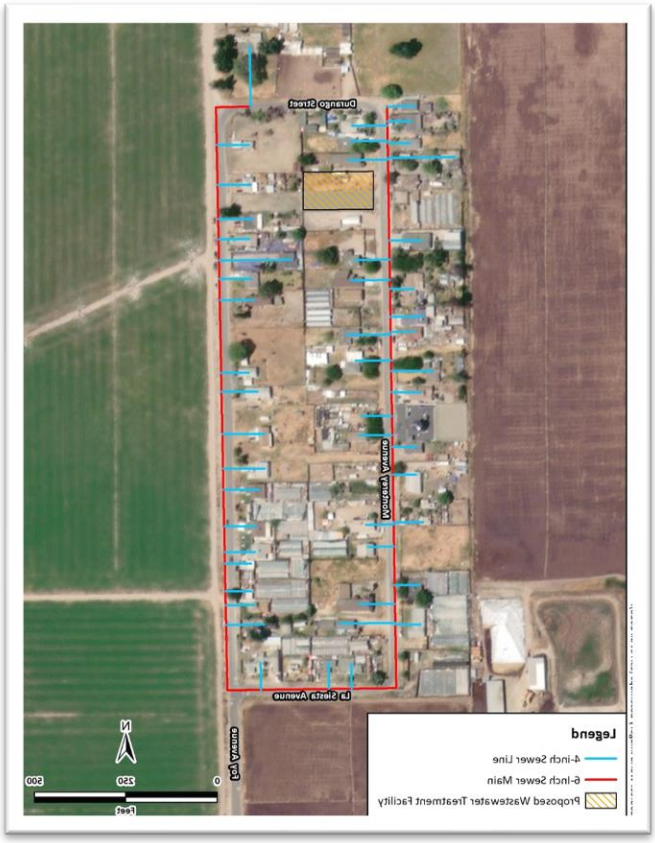


MITIGATED NEGATIVE DECLARATION

Monterey Park Tract – Septic to Sewer Project

September 2020

PREPARED FOR:

Monterey Park Tract Community Services District
7655 Foy Avenue
Ceres, CA 95307-7527

PREPARED BY:

Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93291

Initial Study/Mitigated Negative Declaration

Monterey Park Tract – Septic to Sewer Project

Prepared for:

Monterey Park Tract Community Services District
7655 Foy Avenue
Ceres, CA 95307-7527

Contact: Francisco Diaz
(209) 499-1113

Prepared by:

Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93291

Contact: Travis Crawford, AICP
(559) 840-4414

September 2020

Chapter 1

INTRODUCTION

INTRODUCTION

1.1 Project Summary

This document is the Initial Study/Mitigated Negative Declaration describing the potential environmental effects of constructing a new sewer system to convey wastewater to a centralized location and construction of a new wastewater treatment plant within the Monterey Park Tract community (Project). The Project will replace the existing individual septic systems within the community and would serve 51 dwelling units. The proposed Project is more fully described in Chapter Two – Project Description.

The Monterey Park Tract Community Services District (CSD) 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 CSD 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 CSD 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 CSD 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 a 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

The Monterey Park Tract Community Services District (MPTCSD or CSD) is a small rural community located approximately 5 miles south of the City of Ceres in Stanislaus County, approximately one mile west of the intersection of Crows Landing Road and West Monte Vista Avenue. The community is adjacent to and west of Foy Avenue. See Figures 1 and 2 for Project locations.

2.2 Setting and Surrounding Land Use

The proposed Project involves the installation of a sewer collection system, approximating 3,800 feet of gravity collection mains and 10 manholes. Additionally, the Project includes construction of a new wastewater treatment plant (WWTP), consisting of three septic tanks, two treatment units and a leech field. See Section 2.4 – Project Description for more detailed information.

The Project site is synonymous with MPTCSD and the area slated for sewer main and pipeline installation consists of primarily residential development and paved streets. The District is bordered by agricultural development on all sides. The Project site also includes a proposed WWTP, located centrally in MPTCSD on an undeveloped strip of land east of Monterey Avenue. The proposed WWTP site is bordered by residences on all sides.

Figure 1 – Regional Location Map

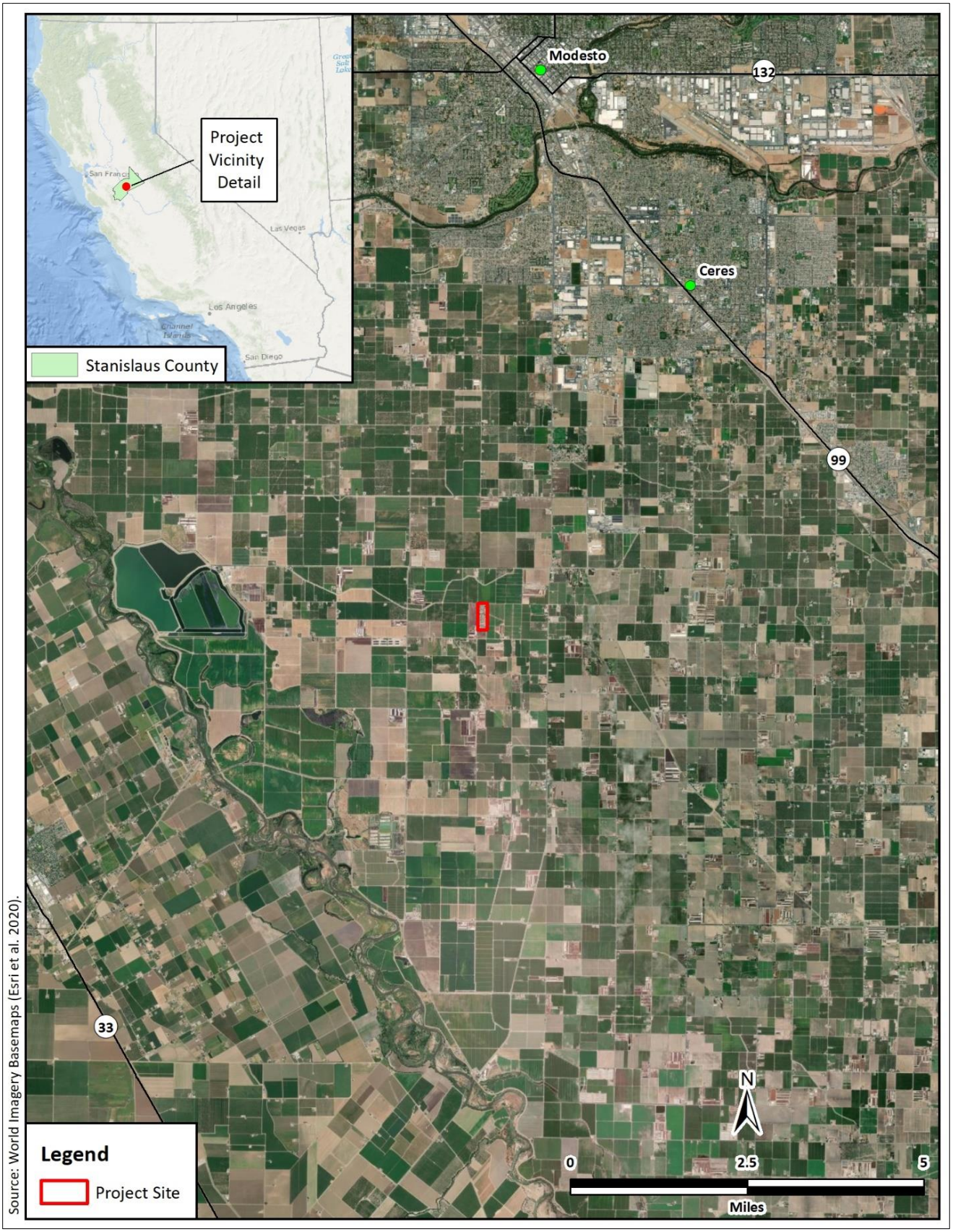
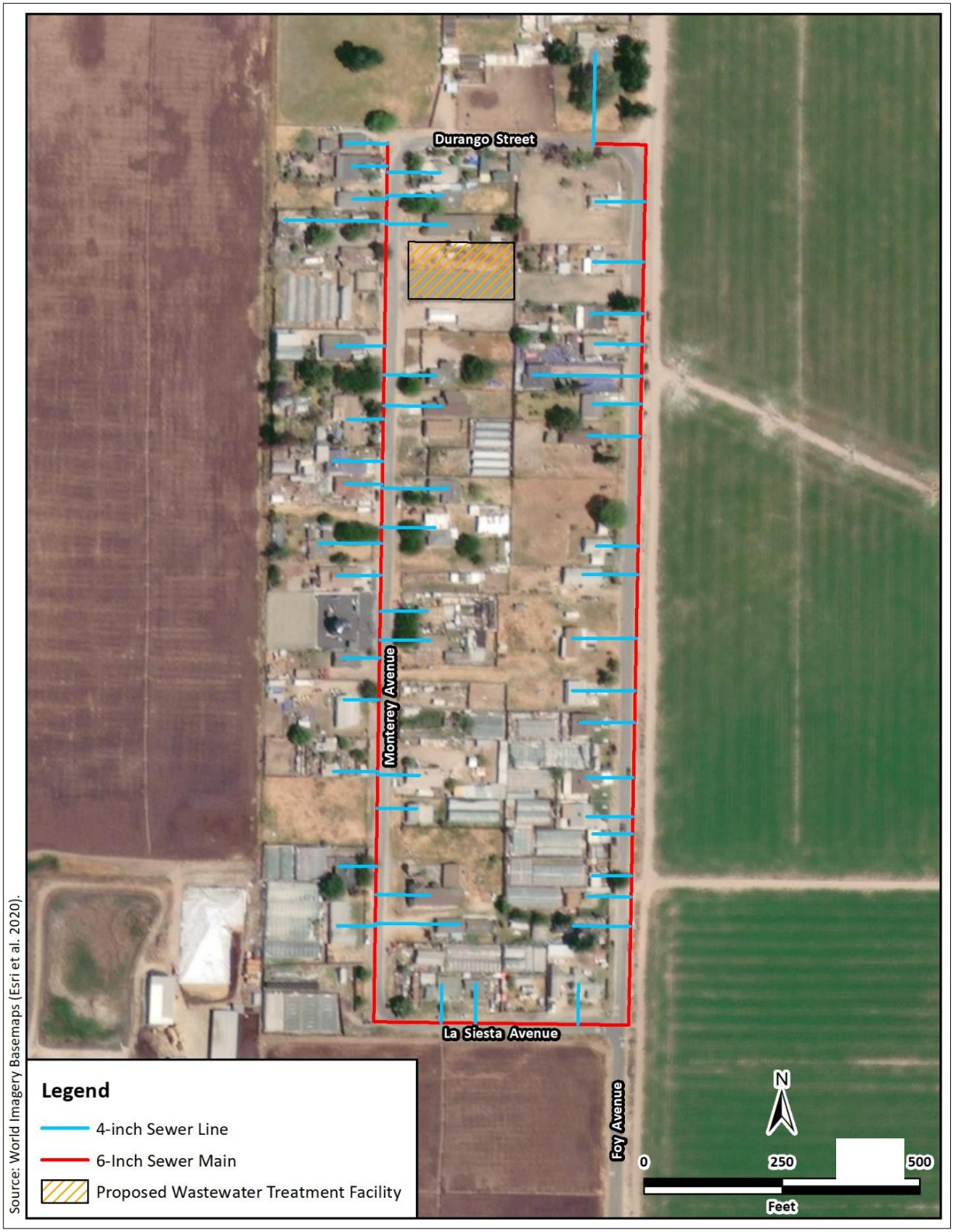


Figure 2 – Project Site Map



2.3 Project Background

MPTCSD currently only provides water service to the residences of the community. MPTCSD was enabled by the California Governing Code (CGC) 61000 and is the responsible agency with the authority to provide services to residents within the boundaries of the Community Services District. This authority was given by consent of registered voters in the community and formed by the Stanislaus County Board of Supervisors in 1984.

MPTCSD owns and operates the community's water system which presently serves 50 households, a church and a community center for a total of 55 active water service connections. The estimated population of the community is approximately 133 people according to the 2010 census.

Individual septic tanks and leach fields are used for sewer service and there are growing concerns about groundwater contamination caused by the elevated density of septic systems. The State Water Resources Control Board adopted the Onsite Wastewater Treatment Systems (OWTS) Policy in July 2012. The OWTS Policy established new requirements that affect the regulation and management of septic systems. The requirements of the OWTS policy are expected to increase the long-term costs of operating and maintaining individual septic systems.

MPTCSD is conducting this study to evaluate the feasibility of providing a community sewer collection and treatment system to all parcels in the service area. The goal is to provide a sustainable and affordable way to provide sewer service to the community.

2.4 Project Description

The MPTCSD proposed Septic to Sewer Project consists of the following:

- Constructing a community sewer collection system to convey wastewater to a centralized location and a new wastewater treatment plant (WWTP) for treatment and disposal of the wastewater. The system would serve 51 dwelling units.
- The sewer collection system would require approximately 3,800 feet of gravity collection mains and 10 manholes.
- Maximum wastewater generation for the system is approximately 20,000 GPD requiring construction of a 4,000 sq. ft. leach field (and a redundant leach field).

- The treatment facility will consist of one (1) Xerxes 10,000-gallon septic tank, two (2) Xerxes 20,000-gallon septic tanks, and two (2) Orenco AdvanTex AX-Max treatment units. See Figure 3.

Project Schedule

Construction is expected to begin in February 2022 and end in February 2023.

2.5 Objectives

The primary objectives of the proposed Project are as follows:

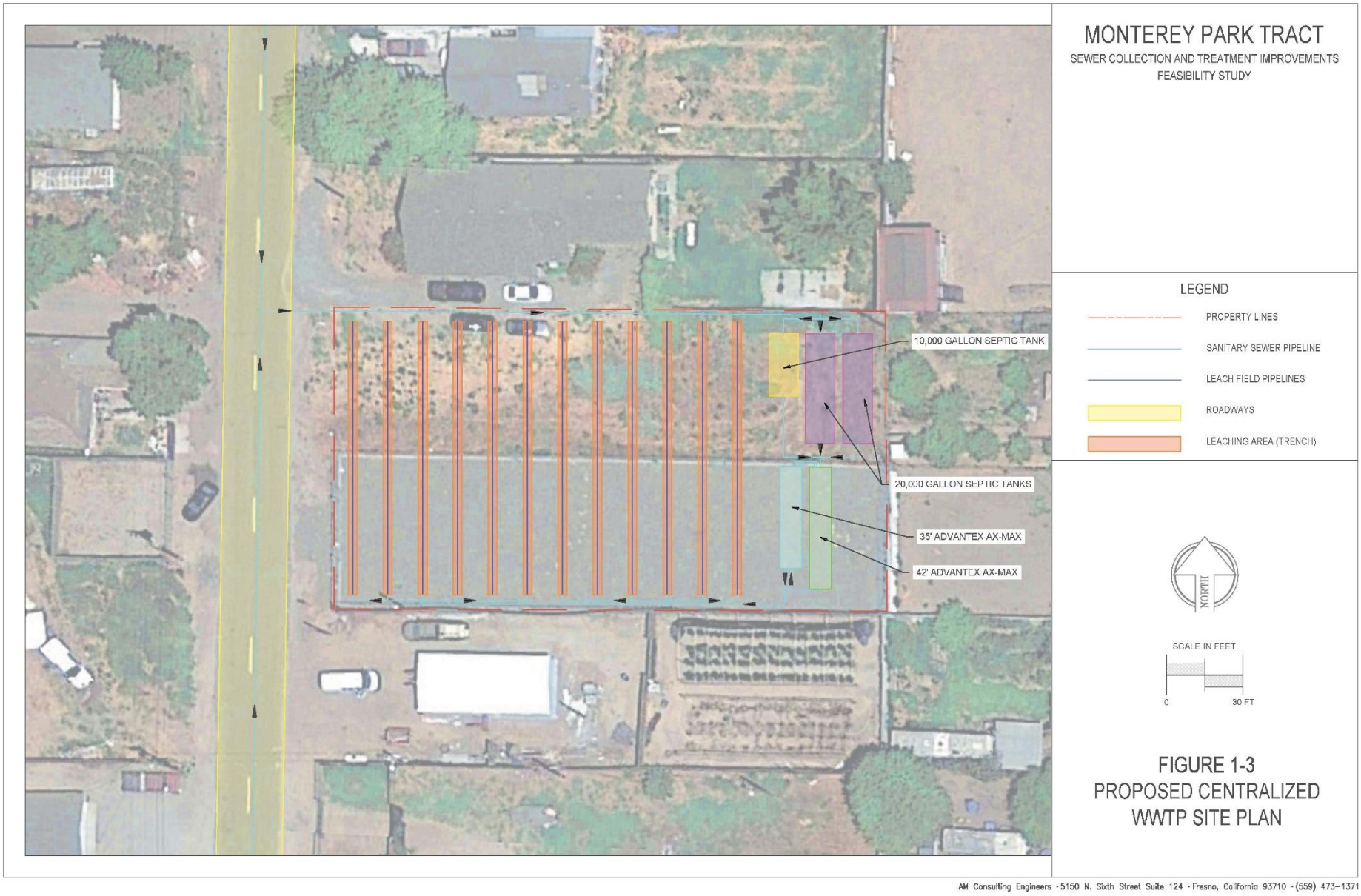
- To provide adequate sewer services to its customers, by replacing individual septic tanks and leach fields with a community collection system and treatment plant.
- To provide an affordable and sustainable solution to growing concerns regarding groundwater contamination, caused by the high density of individuals septic systems in the MPT area.
- To operate the sewer distribution system and WWTP with the most cost-effective methods available that meet the area's 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 Monterey Park Tract CSD.
- Regional Water Quality Control Board approval.
- State Water Board approval.

Figure 3 – Proposed Wastewater Treatment Facility



Chapter 3

IMPACT ANALYSIS

Initial Study Checklist

3.1 Environmental Checklist Form

Project title:

Monterey Park Tract CSD Septic to Sewer Project

Lead agency name and address:

Monterey Park Tract Community Services District
7655 Foy Avenue
Ceres, CA 95307-7527

Contact person and phone number:

Francisco Diaz, MPTCSD
(209) 499-1113

Project location:

See Section 2.1

Project sponsor's name/address:

Monterey Park Tract Community Services District (MPTCSD)

General plan designation:

Agriculture, Stanislaus County General Plan

Zoning:

General AG 10 Acre, Stanislaus County General Plan

Description of project:

See Section 2.3

Surrounding land uses/setting:

See Section 2.2

Other public agencies whose approval or consultation is required (e.g., permits, financing approval, participation agreements):

See Section 2.5

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 Native American Heritage Commission was contacted, requesting a contact list of applicable Native American Tribes, which was provided. Letters were provided to the listed Tribes, notifying them of the Project and requesting consultation, if desired. See Section 3.17 – Tribal Cultural Resources for more information.

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.

☐ Aesthetics	☐ Agriculture Resources and Forest Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology / Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology / Water Quality	☐ Land Use / Planning	☐ Mineral Resources
☐ Noise	☐ Population / Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities / Service Systems	☐ Wildfire	☐ 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.

Travis Crawford, AICP — Date

Environmental consultant to:

Monterey Park Tract Community Services 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?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
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?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

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?

No Impact. The proposed Project involves the installation of a sewer collection system that will include installing underground sewer mains and sewer lines, as well as constructing a proposed wastewater treatment plant (WWTP). Views of surrounding areas will not be substantially impacted by the Project, since the majority of the finished work will be below grade. Any construction of at-

grade structures, such as those potentially required for the WWTP, will be in compliance with county and community standards. As such, the proposed Project will not impede any scenic vistas.

Construction activities will occur over a 12-month period and will be visible from the adjacent residences, businesses, and roadsides; however, the construction activities will be temporary in nature and will not affect a scenic vista, as described above. There will be ***no impact***.

There are no state designated scenic highways within the vicinity of the proposed Project site.[1] The proposed Project would not damage any trees, rock outcroppings or historic buildings within a State scenic highway corridor. There is ***no impact.***

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 majority of the work, including proposed pipelines, community septic tanks and a leech field, will be installed underground. The pipelines, community septic tanks and leech field will not be visible once installed and thus would not degrade the existing visual character of the area. Any installation of at-grade structures, such as the treatment units for the proposed WWTP, will comply with county and community standards and requirements. Construction activities will be seen by the residences and businesses within the immediate vicinity and by vehicles driving in MPTCSD; however, construction activities will be temporary.

As such, the proposed Project will not substantially degrade the existing visual character or quality of the area or its surroundings.

The impact will be ***less than significant***.

Mitigation Measures: None are required.

[1] California Department of Transportation. California Scenic Highway Mapping System. Stanislaus County. https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed September 2020.

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. Current sources of light in the Project area are from vehicles traveling along surrounding roads and residential lighting. No lighting will be associated with pipeline installation. The Project may implement minimal amounts of security lighting at the proposed WWTP site. Such lighting would be shielded so as not to spill onto adjacent properties and would be subject to community and county standards. Accordingly, the proposed Project would not create substantial new sources of light or glare. The impact is ***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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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 proposed Project includes the installation of new sewer collection mains, pipelines and construction of a WWTP within the community of MPTCSD. The pipelines and associated infrastructure will largely occur within the existing right of way and will be installed underground. The purpose of the Project is to replace existing individual septic systems with a community sewer collection system and treatment facility, and does not have the potential to result in the conversion of farmland to non-agricultural uses or forestland uses to non-forestland.

The area within the District falls under the designation of Agriculture by the Stanislaus County General Plan; however, the community is largely comprised of residences and is not currently utilized for agriculture. Additionally, the California Department of Conservation's Important Farmland Finder program considers the area within MPTCSD to be Urban and Built-Up Land. The proposed Project does not include land under a Williamson Act Contract. No conversion of forestland, as defined under Public Resource Code or General Code, as referenced above, would occur as a result of the proposed Project.

No land conversion from farmland or forest land would occur as a result of the proposed Project. The proposed Project includes new sewer mains, pipelines, and a WWTP, largely within the existing right-of-way. All improvements will take place within an area that is built up with rural and urban uses. As such, the proposed Project does not have the potential to result in the conversion of Farmland to non-agricultural uses or forestland uses to non-forestland. 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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
d. Result in other emissions (such as those leading to odors or adversely affecting a substantial number of people)?	☐	☐	☒	☐

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 San Joaquin Valley Air Basin (SJVAB) is designated nonattainment of state and federal health-based air quality standards for ozone and $PM_{2.5}$. The SJVAB is designated nonattainment of state PM_{10}.[2] 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);

[2] San Joaquin Valley Air Pollution Control District. Ambient Air Quality Standards & Valley Attainment Status. http://www.valleyair.org/aqinfo/attainment.htm. Accessed September 2020.

- 2007 Ozone Plan for attainment of the 8-hour ozone standard;
- 2007 PM_{10} Maintenance Plan and Request for Redesignation; and
- 2008 $PM_{2.5}$ Plan.

Because of the region's non-attainment status for ozone, $PM_{2.5}$, and PM_{10}, if the Project-generated emissions of either of the ozone precursor pollutants (ROG or NOx), PM_{10}, 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.

As discussed below, predicted construction and operational emissions would not exceed the SJVAPCD's significance thresholds for ROG, NOx, PM_{10}, 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. Additionally, the Project would comply with all applicable rules and regulations.

The nonattainment pollutants for the SJVAPCD are ozone, PM_{10} and $PM_{2.5}$. Therefore, the pollutants of concern for this impact are ozone precursors, regional PM_{10}, and $PM_{2.5}$. Ozone is a regional pollutant formed by chemical reaction in the atmosphere, and the Project's incremental increase in ozone precursor generation is used to determine the potential air quality impacts, as set forth in the GAMAQI.

The annual significance thresholds to be used for the Project emissions are as follows[3]:

Pollutant/ Precursor	Construction Emissions (tpy)	Operational Emissions (permitted) (tpy)	Operational Emissions (non-permitted) (tpy)
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SOx	27	27	27
PM_{10}	15	15	15
$PM_{2.5}$	15	15	15

Neither the pipeline nor the construction of the wastewater treatment plant will generate emissions once they are constructed. The estimated annual construction emissions are shown below. The Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model, Version 8.1.0 and

[3] San Joaquin Valley Air Pollution Control District. March 19, 2015. Guide for Assessing and Mitigating Air Quality Impacts. http://www.valleyair.org/transportation/GAMAQI_12-26-19.pdf. Page 80. Accessed September 2020.

CalEEMod Version 2016.3.2 were utilized to estimate emissions generated from Project construction. Modeling results are provided in Table 1 and the Road Construction Emissions Model and CalEEMod output files are provided in Appendix A.

Table 1
Proposed Project Construction Emissions

Pollutant/ Precursor	Construction Emissions (tpy)	Threshold/ Exceed?
CO	5.22	100/**N**
NOx	6.26	10/**N**
ROG	0.73	10/**N**
SOx	0.01	27/**N**
PM_{10}	0.73	15/**N**
$PM_{2.5}$	0.34	15/**N**
CO_2e	1046.41	n/a

The nearest sensitive receptors to the proposed Project site are the residential houses located along the proposed pipeline alignment, as an objective of the Project is to implement a community sewer collection system and WWTP instead of individual septic systems.

Construction would take place within the vicinity of sensitive receptors; however, construction emissions would be below SJVAPCD thresholds and be temporary in nature. Therefore, the relatively small amount of emissions generated and the short duration of the construction period would not expose sensitive receptors to substantial pollutant concentrations.

Because the Project will not exceed any established air emission thresholds, does not result in a cumulatively considerable net increase of any criteria pollutant, and does not significantly impact sensitive receptors, the impact is determined to be ***less than significant.***

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. During construction, the various diesel-powered vehicles and equipment in use on-site could create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the Project site. In addition, once the Project is operational, there would be no new source of odors from the Project. The septic tanks and other holding facilities will be underground and will not be exposed. Therefore, the impact is ***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?	☐	☒	☐	☐
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?	☐	☐	☐	☒
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?	☐	☒	☐	☐

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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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?

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?

Less Than Significant Impact With Mitigation. A Biological Resource Evaluation (BRE) was prepared for the proposed Project in August of 2020 by Colibri Ecological Consulting, LLC (CEC). The BRE is included as Appendix B. As part of the BRE, the California Natural Diversity Data Base (CNDDB), 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, multiple field surveys were conducted as described in Appendix B. The results of the BRE are summarized as follows:

Environmental Setting

The Project site is synonymous with the Monterey Park Tract Community Services District and consists of primarily residential development and paved streets. The exact location is approximately five miles

southwest of the City of Ceres in an unincorporated area of Stanislaus County, CA. The District is bordered by agricultural development on all sides. The Project site also includes the proposed WWTP, located centrally in the District on an undeveloped strip of land east of Monterey Avenue. The proposed WWTP site is bordered by residences on all sides.

The proposed Project involves the installation of a sewer collection system, approximating 3,800 feet of gravity collection mains and 10 manholes. Additionally, the Project includes the proposed treatment facility, consisting of three septic tanks, two treatment units and a leech field. See Section 2.4 – Project Description for more detailed information.

Desktop Review

The United States Fish & Wildlife Service (USFWS) species list for the Project site included seven species listed as threatened or endangered under the FESA (USFWS 2020a, Table 1, Appendix A of Appendix B). None of those species could occur on or near the Project site due to either a lack of habitat, the Project site being outside the current range of the species, or the presence of development that would otherwise preclude occurrence (Table 1). As identified in the species list, the Project site does not occur in USFWS-designated Critical Habitat for any species (USFWS 2020a, Appendix A of Appendix B).

Searching the California Natural Diversity Database (CNDDB) for records of special-status species from within the Brush Lake 7.5- minute USGS topographic quad and the eight surrounding quads produced 161 records of 51 species (Table 1, Appendix B). Of those 51 species, 10 are not considered further because state or federal regulatory agencies or special interest groups do not recognize them through special designation (Appendix B). Of the remaining 41 species, 14 are known from within 5 miles of the Project site (Table 1, Figure 4 of Appendix B). Of those 14 species, only Swainson's hawk (*Buteo swainsoni*) could occur on or near the Project site (Table 1 of Appendix B). All other special-status species have no potential to occur due to either the lack of habitat, the Project site being outside the current range of the species, they were not detected during the reconnaissance survey, or a combination thereof.

Searching the CNPS inventory of rare and endangered plants of California yielded 13 species with a California Rare Plant Rank (CRPR) of 1B or 2B (Table 1, Appendix C, CNPS 2020 of Appendix B). None of those species are expected to occur on or near the Project site due to the lack of habitat (Table 1 of Appendix B).

Reconnaissance Survey

The Project site is coincident with the rural community of MPTCSD and consists of residential homes, a community center, a church, paved streets, and disturbed road shoulders (Figures 5–7 of Appendix B). The site of the planned wastewater treatment facility is disturbed, partly fenced, levelled, and half-

covered in gravel (Figure 8 of Appendix B). The Project site is bordered by agricultural development on all sides (Figures 2 and 7 of Appendix B), with corn fields to the east, south, and west; alfalfa fields to the north, and a small dairy farm to the southwest (Figure 2 of Appendix B). The Project site is underlain by a mix of Hilmar loamy sand, slightly saline, 0–1% slopes; Hilmar loamy sand, 0–1% slopes; Delhi loamy sand 0–3% slopes; and Dello loamy sand, 0–1% slopes (NRCS 2020). The elevation of the Project site ranges from 59–69 feet above mean sea level (Google 2020).

A total of 24 plant species (7 native and 17 nonnative) were found during the reconnaissance survey (Table 2 of Appendix B). Fifteen bird species and one mammal species were also detected (Table 2 of Appendix B).

Critical Habitat

The BRE concludes the Project will have no effect on designated or proposed critical habitat as no such habitat has been designated or proposed on or near the Project site.

Special-Status Species

The BRE concludes 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.

Migratory Birds

The BRE concludes the Project may affect but is not likely to adversely affect nesting migratory birds.

Regulated Habitats

The BRE concludes the Project will have no effect on regulated habitats.

Direct and Indirect Impacts

The Project could adversely affect, either directly or through habitat modifications, one special-status animal that occurs or may occur on or near the Project site. Construction activities such as excavating, trenching, or using other heavy equipment that disturbs or harms a special-status species or substantially modifies its habitat could constitute a significant impact. It is recommended that Mitigation Measure BIO-1 be included in the conditions of approval to reduce the potential impact to a less-than-significant level.

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.

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 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. No marine or estuarine fishery resources or migratory routes to and from anadromous fish spawning grounds were present in the survey area.

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. It is recommended that Mitigation Measure BIO-2 (below) be included in the conditions of approval to reduce the potential impact to a less-than-significant level.

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, 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.

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?

No Impact. There are no local policies or ordinances that the Project will conflict with. Additionally, there are no adopted local, regional, or state habitat conservation plans adopted for the area. As such, there is ***no impact.***

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?	☐	☒	☐	☐
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?	☐	☐	☒	☐

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?

Less Than Significant Impact With Mitigation. To meet State and federal requirements, ASM Affiliates, Inc. (ASM) was retained to conduct background research, complete a records search, request a search of the Native American Heritage Commission's Sacred Lands File and reach out to appropriate Native American contacts, conduct a cultural resources survey, and prepare a technical report, dated September 2020 (see Appendix C). The results of the Report are summarized herein and were used to support the determinations made in this CEQA document.

Native American Outreach

A Sacred Lands File (SLF) request was submitted to the Native American Heritage Commission (NAHC) on August 14, 2020. The NAHC responded on August 20, 2020, with a negative result to the SLF search. Additionally, the NAHC provided a list of Native American tribes who have knowledge of the Project APE. ASM wrote to contacts provided by NAHC for additional information pertaining to the APE on August 20, 2020. On September 9, 2020 follow-up emails and phone calls were made to the NAHC

provided contacts. At the time of the report publication no responses have been made. Appendix C provides requests to the NAHC, their results, and information request letters to Native American tribes.

Records Search and Site-Specific Research

A California Historical Resources Information System (CHRIS) records search was conducted by ASM Senior Archaeologist Deanna Keegan, M.A., RPA. Ms. Keegan requested a records search within a 0.5-mi. radius of the APE from the Central California Information Center (CCIC) on August 10, 2020, for the Project. CCIC provided records search results on August 12, 2020 (File No. 11471N). CHRIS records search requests and results are provided in Confidential Appendix B of Appendix C. Summarized records search results provided below are sourced from the CCIC accompanying attachments.

ASM conducted additional archival research including the review of historic maps and photographs, land records, and queries into the Office of Historic Preservation (OHP) Historic Property Directory (HPD) and NRHP. Historic topographic maps reviewed include Brush Lake, California, from 1953, 1969, 2012, 2015, and 2018; Modesto West, California, in 1941; San Jose, California, from 1947, 1956, 1962, 1966; Stockton, California in 1989; and Westport, California in 1915. The APE and surrounding vicinity appear to be open land with seasonal floodplain wetland habitat until c. 1955. There are no historic properties listed in the NRHP, OHP, or the HPD within the APE.

Pedestrian Survey

An intensive pedestrian survey of the APE was conducted on September 1, 2020 by ASM Senior Archaeologist Deanna Keegan, M.A. RPA, and ASM Assistant Archaeologist Jennifer Mak (Figure 6). Ms. Keegan served as Project Field Director. Field methods were designed to meet all professional requirements, including the *Secretary of the Interior's Standards and Guidelines*. The field methods employed included intensive, on-foot examination of the ground surface for evidence of archaeological sites, in the form of artifacts, surface features (such as house pits), and archaeological indicators (e.g., anthropogenic soils or burnt animal bone); the identification and location of any new or previously discovered sites; tabulation and recorded of surface diagnostic artifacts; site photography and sketch mapping; preliminary evaluation of site integrity; and site recording or, in the case of previously recorded sites, site record updating. The California OHP Instructions for Recording Historic Resources and Department of Parks and Recreation (DPR) 523 forms were followed and employed for site recording. GIS data was collected with an iPad using ESRI Collector for ArcGIS software synced with a Trimble R1 unit producing sub-meter accuracy. The APE was examined by walking parallel 20-m parallel transects. Both sides of Monterey Avenue, La Siesta Avenue, Foy Avenue, and Durango Street were inspected for cultural resources. In total, 0.75 linear miles of roadway were inspected. The proposed

location of the wastewater treatment plant were also examined for cultural materials (Figure 6 of Appendix C).

No cultural resources were observed in the survey area. The proposed location for the wastewater treatment plant was inspected first. The proposed wastewater treatment plant, located in the northeast portion of the APE east of Monterey Avenue, is a vacant graveled lot surrounded by a chain- linked fence on the eastern, northern, and western ends of the lot, and a wooden fence at the southern end. Ground visibility for the lot is 95 percent with the entire area leveled and covered by road gravel. Modern debris such as plastic soda bottles and dead vegetation were scattered throughout the entire area. The vacant dirt lot directly abutting the northern end of the fenced location was also examined. Ground visibility in the vacant lot was at 70 percent with vegetation obstructing views. Vegetation consisted of non-native grasses and weeds, jimsonweed and prickly pear cactus. Inspection of the ground revealed highly disturbed alluvial soils and modern debris. Private residences were directly adjacent to the vacant lot on the northern and eastern sides. The pavement and adjacent graded dirt shoulders of Monterey Avenue, La Siesta Avenue, Foy Avenue, and Durango Street were inspected. Inspection revealed that these areas have been periodically modified by road building and agricultural activities. Only modern road litter was found along the roads. Field conditions for the survey were good and survey confidence for the APE is high. Project Area photographs showing roadways and vacant lot for excavation are presented in Appendix A, Figures 8-12 of Appendix C.

Paleontological Resources

Paleontological resources are the fossilized remains of plants and animals and associated deposits. The Society of Vertebrate Paleontology has identified vertebrate fossils, their taphonomic and associated environmental indicators, and fossiliferous deposits as significant nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered significant resources.

CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) §15126.4 (a)(1)). California Public Resources Code §5097.5 (see above) also applies to paleontological resources.

Direct and Indirect Impacts

As described in the Cultural Resources Report, the records search, background historical research, Native American outreach and a pedestrian survey revealed that no archaeological, cultural or historical resources occur on the Project site or in the Project area.

Unidentified archaeological, cultural or historical resources could be uncovered during proposed Project construction which could result in a potentially significant impact; however, implementation of Mitigation Measure CUL-1 would ensure that significant impacts remain ***less than significant with mitigation incorporation.***

Mitigation Measures:

CUL – 1 In the event that archaeological remains are encountered at any time during development or ground-moving activities within the entire Project area, all work in the vicinity of the find should be halted until a qualified archaeologist can assess the discovery and take appropriate actions as necessary.

c. Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact. Although unlikely given the highly disturbed nature of the site and the records search did not indicate the presence of such resources, subsurface construction activities associated with the proposed Project could potentially disturb previously undiscovered human burial sites. Accordingly, this is a potentially significant impact. The California Health and Safety Code Section 7050.5 states that if human remains are discovered on-site, no further disturbance shall occur until the Stanislaus County Coroner has made a determination of origin and disposition. If the Coroner determines that the remains are not subject to his or her authority and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC. The NAHC shall identify the person or persons it believes to be the "most likely descendant" (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resource Code Section 5097.98.

Although considered unlikely subsurface construction activities could cause a potentially significant impact to previously undiscovered human burial sites, however compliance with regulations would reduce this impact to ***less than significant***.

Mitigation Measures: None are required.

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?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

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 the installation of a sewer collection system, approximating 3,800 feet of gravity collection mains and 10 manholes. Additionally, the Project includes the proposed construction of a treatment facility, consisting of three septic tanks, two treatment units and a leech field. 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 to maximize energy conservation and it is expected that contractors and the community 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.

Operational Project energy consumption would be minimal, as the pipelines do not require energy once they are installed. Operational energy would also be consumed during each vehicle trip associated with the proposed use for maintenance or otherwise.

As discussed in Impact XVII – Transportation/Traffic, the proposed Project would not generate on-going daily vehicle trips, other than for maintenance. 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 WWTP. Adherence to state code requirements would ensure that the Project would not result in wasteful and inefficient use of non-renewable resources due to 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.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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	☐	☐	☒	☐

VII. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

RESPONSES

a-i. Expose people or structures to 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.

Less Than Significant Impact. The community of Monterey Park Tract Community Services District is located in a seismically active area and there is potential for seismic activity in the Project area. However, no active or potentially active faults have been mapped within the District and the Project area does not lie within a State-designated Alquist-Priolo Earthquake Fault Zone. The lack of mapped active and potentially active faults notwithstanding, the Project area could be subjected to strong ground shaking during an earthquake on a nearby fault such as the San Joaquin Fault, located approximately 10 miles southwest of the site.

The safety risk to people resulting from seismic activity would be significantly decreased by mandatory adherence to all relevant building codes, including the California Building Code (CBC) requirements, adopted by MPTCSD. In addition, the Project does not include any habitable structures. Any impacts would be l***ess than significant.***

Mitigation Measures: None are required.

a (ii-iv). Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking, liquefaction or landslides?

Less than Significant Impact. The proposed Project site is not in an area recognized for severe seismic ground shaking, landslides or liquefaction. Additionally, the Project does not include the construction of substantial structures that would expose people or structures to adverse effects involving rupture of a known earthquake fault. Impacts 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. The proposed Project site has a varied topography, but does not include any Project features that would result in substantial soil erosion or loss of topsoil. Most of the Project components will be located below grade. Once construction is completed, the pipeline trenches will be returned to pre-construction conditions and will not result in soil erosion greater than existing conditions. Therefore, the impact is ***less than significant***.

Mitigation Measures: None are required.

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?

Less than Significant Impact. As described in Impact VI (aii-aiv), the potential for landslides, liquefaction, settlement or other seismically related hazards is low. As such, any impacts will be ***less than significant.***

Mitigation Measures: None are required.

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. As described above, the potential for hazard from landslide and liquefaction in the Project area is low. Therefore, the potential for liquefaction induced lateral spreading is also low. Causes of soil instability include, but are not limited to, withdrawal of groundwater, pumping of oil and gas from underground, liquefaction, and hydro-compaction.[4] The proposed Project does not include the on-site withdrawal of groundwater and the Project site is not located in an area that has been subjected to activities that might cause soil instability. Because the Project site has not been subject to activities that may cause soil instability, the risk of subsidence or collapse is expected to be low. 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?

Less Than Significant Impact. The Project itself is a sewer collection system that will eliminate individual septic tanks in the community. Three septic tanks, two treatment units and a leech field are included in the proposed Project. The Project has been designed to work with the soil types in the community. Therefore, there would be a ***less than significant 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. Paleontological resources are the fossilized remains of plants and animals and associated deposits. The Society of Vertebrate Paleontology has identified vertebrate fossils, their taphonomic and associated environmental indicators, and fossiliferous deposits as significant nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered significant resources.

[4] USGS. California Water Science Center. Land Subsidence: Cause & Effect. https://ca.water.usgs.gov/land_subsidence/california-subsidence-cause-effect.html. Accessed September 2020.

CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) §15126.4 (a)(1)). California Public Resources Code §5097.5 (see above) also applies to paleontological resources.

There are no unique geological features or known fossil-bearing sediments in the vicinity of the proposed Project site. However, there remains the possibility for previously unknown, buried paleontological resources or unique geological sites to be uncovered during subsurface construction activities. Implementation of Mitigation Measure CUL-1 would require inadvertently discovery practices to be implemented should previously undiscovered paleontological resources be located. As such, impacts to undiscovered paleontological resources would be ***less than significant.***

VIII. GREENHOUSE GAS EMISSIONS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

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 proposed Project would generate exhaust-related GHG emissions during construction resulting from construction equipment operation, material haul and delivery trucks, and by trips by construction worker vehicles. Construction-related GHG emissions would occur for approximately twelve months and would cease following completion of the Project. The proposed Project is not a land-use development project that would generate vehicle trips and is not a roadway capacity increasing project that could carry additional VMT. Therefore, the proposed Project would not result in a net increase in operational GHG emissions. As such, the proposed Project would not interfere or obstruct implementation of an applicable GHG emissions reduction plan. The proposed Project would be consistent with all applicable local plans, policies, and regulations for reducing GHG emissions. Any impacts related to GHG emissions would be ***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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
f. Impair implementation of or physically interfere with an adopted emergency	☐	☐	☒	☐

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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 trenching 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 little or no hazardous materials. Once operational, the pipelines are sealed and will not emit hazardous materials. Since the Project is intended to replace the existing deteriorated individual septic systems, it is assumed to have a positive impact by reducing potential contamination or other issues that may result in the release of hazardous materials.

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. There are no schools located within one-quarter mile of the Project vicinity. As previously described, long-term operation of the proposed Project would involve little or no hazardous materials. Once operational, the pipelines are sealed and will not emit hazardous materials. Since the Project is intended to replace the existing deteriorated individual septic systems, it is assumed to have a positive impact by reducing potential contamination or other issues that may result in the release of hazardous materials.

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. The proposed Project site is not located on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5.[5] The nearest site is located approximately four miles northeast of the Project site, west of Central Avenue and north of Grayson Road in the City of Ceres. However, the site investigation has been closed and no further action is necessary. The Project is not impacted by the site and as such, 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?

Less Than Significant Impact. The nearest airport to the Project site is the Modesto City-County Airport located in the City of Modesto, approximately 7.5 miles northeast. As previously described, the Project does not include any significant above-grade structures and as such has ***a less than significant impact*** on any airport operations.

Mitigation Measures: None are required.

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

[5] California Department of Toxic Substance Control. EnviroStor. https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=monterey+park+tract. Accessed September 2020.

Less Than Significant Impact. Pipeline installation will be temporary in nature and will not cause any road closures that could interfere with any adopted emergency response or evacuation plan. Construction schedules pertaining to pipelines within roadways will be coordinated with sheriff/fire/emergency services. Adequate emergency access will be maintained at all times. 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. 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?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
i. Result in substantial erosion or siltation on- or off- site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or 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?	☐	☐	☒	☐

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?	☐	☐	☐	☒
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

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 Monterey Park Tract Community Services District (MPTCSD) is a small rural community located approximately 5 miles southerly of the City of Ceres in Stanislaus County. MPTCSD owns and operates the community's water system which presently serves 50 households, a church and a community center for a total of 55 active water service connections. The estimated population of the community is approximately 133 people according to the 2010 census. Individual septic tanks and leach fields are used for sewer service in the area and there are growing concerns about groundwater contamination caused by the elevated density of septic systems.

The proposed Project includes replacement of the existing individual septic systems and construction of a WWTP. The Project does not include any processes that would result in the production of chemicals or substances that would adversely impact local water quality beyond existing conditions. The Project is intended to rehabilitate/replace deteriorating septic tanks and to upgrade to a community sewer collection system and WWTP in an effort to protect groundwater in the area. The Project will not result in any additional water releases that could potentially impact groundwater or water quality. The State Water Resources Control Board will have ultimate review and approval of the upgraded system, thereby ensuring adequate water quality standards. MPTCSD is currently in compliance and has not received any notices of violation. There are no aspects of the Project that would result in changes to waste discharge requirements. 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 Project is an upgrade and replacement of the existing individual septic systems and will not use additional groundwater beyond what is already being used by MPTCSD. Additionally, the proposed Project will not significantly interfere with groundwater recharge as it will not introduce significant amounts of impermeable surfaces. As such, any impacts to groundwater supplies will be ***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 replacement of the existing individual septic systems will likely introduce few non-permeable surfaces. The pipelines and other improvements will be installed within the existing road right-of-way, or other easements and will not alter any existing drainage patterns. There may be a small amount of non-permeable surfaces associated with the proposed WWTP; however, they will be in compliance with community and county standards and are not expected to effect stormwater drainage systems in the area. There are no waterways in the immediate vicinity of the proposed Project. Any impacts 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?

No Impact. The Project is not within a regulatory floodway or within a base floodplain (100 year) elevation. In addition, 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. The Project will not conflict with any water quality control plans or sustainable groundwater management plan. Therefore, there are ***no impacts.***

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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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. The proposed Project is located largely within the existing streetscape within the community of Monterey Park Tract Community Services District as presented in Figure 2. The construction of the sewer lines and appurtenances would not cause any land use changes in the surrounding vicinity nor would it divide an established community. Once construction is completed, disturbed ground will be restored. The proposed Project involves replacement of the existing individual septic systems and does not conflict with any land use plans, policies or regulations. ***No impacts*** would occur as a result of Project implementation.

Mitigation Measures: None are required.

XI. 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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. The proposed Project includes replacement of the existing individual septic systems with a community sewer collection system and new WWTP. Construction will take place within the existing streetscape and not in an area with known mineral resources. Therefore, there is ***no impact***.

Mitigation Measures: None are required.

XII. 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?	☐	☐	☒	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
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?	☐	☐	☐	☒

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 receptors to the proposed Project would be the residences along the existing pipeline alignment, as presented in Figure 2. Project construction would involve temporary, short-term noise sources including site preparation and installation of the pipeline and site cleanup work is expected to last for approximately one year. Construction-related short-term, temporary noise levels would be higher than existing ambient noise levels in the Project area, but is temporary and would not occur after construction is completed.

Operations-related noise would be similar to existing conditions. The pipelines themselves do not emit noise, nor do the related improvements. As such, any impacts to sensitive receptors would be less than significant.

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 2, 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 2
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 3 describes the typical construction equipment vibration levels.

Table 3
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.

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?

No Impact. The nearest airport to the Project site is the Modesto City-County Airport located in the City of Modesto, approximately 7.5 miles northeast. As previously described, the Project does not include any above-grade structures and as such has ***no impact*** on or from noise associated with airport operations.

Mitigation Measures: None are required.

[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 2020.

XIV. POPULATION AND HOUSING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐

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 or businesses associated with the proposed Project, nor would Project implementation displace people or housing. The proposed Project is needed to replace existing individual septic systems. 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
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?	☐	☐	☒	☐

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?

No Impact. The proposed Project would replace the existing individual septic systems with a community sewer collection system and new WWTP. The proposed Project would not directly or indirectly induce population growth and there would be no changes needed to the existing fire suppression services. There is ***no impact.***

Police Protection?

No Impact. The proposed Project will continue to be served by existing police protection services. No additional police personnel or equipment is anticipated. There is ***no impact.***

Schools, Parks, Other Public Facilities?

No Impact. The proposed Project would not increase the number of residents in the community, as the Project does not include residential units. Because the demand for schools, parks, and other public facilities is driven by population, the proposed Project would not increase demand for those services. As such, the proposed Project would result in ***no impacts.***

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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

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 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
Would the project:				
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?	☐	☐	☒	☐

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 would not cause a substantial increase in traffic, reduce the existing level of service, create any additional congestion at any intersections, or be inconsistent with CEQA Guidelines Section 15064.3. The construction of pipelines and appurtenances will not generate any additional traffic (beyond construction-related traffic trips) and as such, level of service standards and vehicle miles traveled standards would not be exceeded. 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. Construction schedules pertaining to pipelines within roadways will be coordinated with police/fire/emergency services. Adequate emergency access will be maintained at all times. Access to existing residences will also be maintained throughout construction.

Once installed, the new pipelines would not generate significant additional traffic trips per day, other than as needed for periodic maintenance. 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
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.	☐	☐	☒	☐

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, potentially affected Tribes were formally notified of this Project and were given the opportunity to request consultation on the Project.

A Sacred Lands File (SLF) request was submitted to the Native American Heritage Commission (NAHC) on August 14, 2020. The NAHC responded on August 20, 2020, with a negative result to the SLF search. Additionally, the NAHC provided a list of Native American tribes who have knowledge of the Project APE. ASM wrote to contacts provided by NAHC for additional information pertaining to the APE on August 20, 2020. On September 9, 2020 follow-up emails and phone calls were made to the NAHC provided contacts. At the time of the report publication no responses have been made. Appendix C provides requests to the NAHC, their results, and information request letters to Native American tribes. 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?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒

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. MPTCSD currently only provides water service to the residences in the area. MPTCSD was enabled by the California Governing Code (CGC) 61000 and is the responsible agency with the authority to provide services to residents within the boundaries of the Community Services District. This authority was given by consent of registered voters in the community and formed by the Stanislaus County Board of Supervisors in 1984.

MPTCSD owns and operates the community's water system which presently serves 50 households, a church and a community center for a total of 55 active water service connections. The estimated population of the community is approximately 133 people according to the 2010 census.

Individual septic tanks and leach fields are used for sewer service and there are growing concerns about groundwater contamination caused by the elevated density of septic systems. The State Water Resources Control Board adopted the Onsite Wastewater Treatment Systems (OWTS) Policy in July 2012. The OWTS Policy established new requirements that affect the regulation and management of septic systems. The requirements of the OWTS policy are expected to increase the long-term costs of operating and maintaining individual septic systems.

The proposed Project includes replacement of the community's existing individual septic systems with a community sewer collection system and new WWTP, the results of which would not exceed any wastewater treatment requirements set by the Regional Water Quality Control Board. The Project is intended to prevent potential contamination of groundwater by the current high density of individual septic systems. The State Water Resources Control Board will have ultimate review and approval of the upgraded system, thereby ensuring adequate water quality standards. The environmental impacts of the proposed Project 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?

No Impact. The proposed Project includes replacement of the community's existing individual septic systems with a community sewer collection system and new WWTP. No new water supplies would be required as a result of this 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?

Less Than Significant Impact. The proposed Project includes replacement of the community's existing individual septic systems with a community sewer collection system and new WWTP, the results of which would require consolidation of existing wastewater produced by the community. The Project includes installation of new wastewater treatment facilities and processes; however, the current sewage septic disposal system employed by the MPTCSD is unsustainable and the proposed Project is intended to rehabilitate/replace that system with one better suited to the community's needs and requirements. The State Water Resources Control Board will have ultimate review and approval of the upgraded system, thereby ensuring adequate water quality standards. The Project will be in compliance will all State and local regulations and requirements.

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 Project will not generate waste on an on-going basis and 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?	☐	☐	☒	☐
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?	☐	☐	☒	☐

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 in areas that have been developed with urban uses. The proposed Project includes replacement of the community's existing individual septic systems, which will include underground pipelines and construction of a new WWTP. There is no increased risk or on-going risk of wildfire beyond existing conditions associated with the Project.

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

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 Septic to Sewer Project located in the Monterey Park Tract Community Services District, in Stanislaus County. The MMRP lists mitigation measures recommended in the IS/MND for the proposed Project and identifies monitoring and reporting requirements as well as conditions recommended by responsible agencies who commented on the Project.

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 MPTCSD 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				
BIO-1 Protect Nesting Swainsons 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. **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	MPTCSD	Prior to and during construction	MPTCSD	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
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.				
Cultural Resources				
Mitigation Measure CUL-1 – • In the event that archaeological remains	MPTCSD	Prior to and during	MPTCSD	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
are encountered at any time during development or ground-moving activities within the entire Project area, all work in the vicinity of the find should be halted until a qualified archaeologist can assess the discovery and take appropriate actions as necessary.		construction		

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
- Brandon Cauble, Assistant Engineer

Colibri Ecological Consulting, LLC.

- Jeff Davis

ASM Affiliates

- Ted Bibby

Appendices

Appendix A

CalEEMod Output Files

Road Construction Emissions Model, Version 9.0.0

Daily Emission Estimates for -> MPTCSD Septic to Sewer Project

Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	1.18	10.39	12.37	3.54	0.54	3.00	1.10	0.48	0.62	0.02	2,228.28	0.59	0.05	2,257.05
Grading/Excavation	5.75	47.26	63.23	5.72	2.72	3.00	3.08	2.46	0.62	0.10	9,718.97	2.87	0.12	9,827.68
Drainage/Utilities/Sub-Grade	3.36	30.20	33.77	4.58	1.58	3.00	2.08	1.46	0.62	0.06	5,711.71	1.20	0.08	5,765.83
Paving	1.58	17.94	15.16	0.87	0.87	0.00	0.78	0.78	0.00	0.03	2,878.94	0.75	0.06	2,914.43
Maximum (pounds/day)	5.75	47.26	63.23	5.72	2.72	3.00	3.08	2.46	0.62	0.10	9,718.97	2.87	0.12	9,827.68
Total (tons/construction project)	0.51	4.38	5.36	0.58	0.24	0.34	0.29	0.22	0.07	0.01	863.46	0.23	0.01	872.78

Notes:

Project Start Year ->	2021
Project Length (months) ->	12
Total Project Area (acres) ->	1
Maximum Area Disturbed/Day (acres) ->	0
Water Truck Used? ->	Yes

	Total Material Imported/Exported Volume (yd^3/day)		Daily VMT (miles/day)			
Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	280	40
Grading/Excavation	0	0	0	0	880	40
Drainage/Utilities/Sub-Grade	0	0	0	0	600	40
Paving	0	0	0	0	480	40

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> MPTCSD Septic to Sewer Project

Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.02	0.14	0.16	0.05	0.01	0.04	0.01	0.01	0.01	0.00	29.41	0.01	0.00	27.03
Grading/Excavation	0.30	2.50	3.34	0.30	0.14	0.16	0.16	0.13	0.03	0.01	513.16	0.15	0.01	470.74
Drainage/Utilities/Sub-Grade	0.16	1.40	1.56	0.21	0.07	0.14	0.10	0.07	0.03	0.00	263.88	0.06	0.00	241.66
Paving	0.03	0.36	0.30	0.02	0.02	0.00	0.02	0.02	0.00	0.00	57.00	0.01	0.00	52.35
Maximum (tons/phase)	0.30	2.50	3.34	0.30	0.14	0.16	0.16	0.13	0.03	0.01	513.16	0.15	0.01	470.74
Total (tons/construction project)	0.51	4.38	5.36	0.58	0.24	0.34	0.29	0.22	0.07	0.01	863.46	0.23	0.01	791.78

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

MPTCSD Septic to Sewer Project

San Joaquin Valley Unified APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	21.00	1000sqft	0.48	21,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2022
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1949	0.4853	0.4508	7.7000e-004	6.5100e-003	0.0262	0.0327	1.9200e-003	0.0242	0.0261	0.0000	67.6113	67.6113	0.0186	0.0000	68.0769
Maximum	**0.1949**	**0.4853**	**0.4508**	**7.7000e-004**	**6.5100e-003**	**0.0262**	**0.0327**	**1.9200e-003**	**0.0242**	**0.0261**	**0.0000**	**67.6113**	**67.6113**	**0.0186**	**0.0000**	**68.0769**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1949	0.4853	0.4508	7.7000e-004	6.5100e-003	0.0262	0.0327	1.9200e-003	0.0242	0.0261	0.0000	67.6112	67.6112	0.0186	0.0000	68.0768
Maximum	**0.1949**	**0.4853**	**0.4508**	**7.7000e-004**	**6.5100e-003**	**0.0262**	**0.0327**	**1.9200e-003**	**0.0242**	**0.0261**	**0.0000**	**67.6112**	**67.6112**	**0.0186**	**0.0000**	**68.0768**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2021	8-31-2021	0.2947	0.2947
2	9-1-2021	9-30-2021	0.0981	0.0981
		Highest	0.2947	0.2947

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	0.0966	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
Energy	2.3600e-003	0.0215	0.0181	1.3000e-004		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	23.3878	23.3878	4.5000e-004	4.3000e-004	23.5267
Mobile	0.0386	0.4232	0.3983	2.0100e-003	0.1231	1.7100e-003	0.1248	0.0331	1.6100e-003	0.0347	0.0000	186.2672	186.2672	0.0121	0.0000	186.5683
Waste						0.0000	0.0000		0.0000	0.0000	5.2859	0.0000	5.2859	0.3124	0.0000	13.0956
Water						0.0000	0.0000		0.0000	0.0000	1.5407	0.0000	1.5407	0.1582	3.7400e-003	6.6101
Total	**0.1376**	**0.4447**	**0.4166**	**2.1400e-003**	**0.1231**	**3.3400e-003**	**0.1264**	**0.0331**	**3.2400e-003**	**0.0363**	**6.8265**	**209.6553**	**216.4818**	**0.4831**	**4.1700e-003**	**229.8012**

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	0.0966	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
Energy	2.3600e-003	0.0215	0.0181	1.3000e-004		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	23.3878	23.3878	4.5000e-004	4.3000e-004	23.5267
Mobile	0.0386	0.4232	0.3983	2.0100e-003	0.1231	1.7100e-003	0.1248	0.0331	1.6100e-003	0.0347	0.0000	186.2672	186.2672	0.0121	0.0000	186.5683
Waste						0.0000	0.0000		0.0000	0.0000	5.2859	0.0000	5.2859	0.3124	0.0000	13.0956
Water						0.0000	0.0000		0.0000	0.0000	1.5407	0.0000	1.5407	0.1582	3.7400e-003	6.6101
Total	**0.1376**	**0.4447**	**0.4166**	**2.1400e-003**	**0.1231**	**3.3400e-003**	**0.1264**	**0.0331**	**3.2400e-003**	**0.0363**	**6.8265**	**209.6553**	**216.4818**	**0.4831**	**4.1700e-003**	**229.8012**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

MPTCSD Septic to Sewer Project - San Joaquin Valley Unified APCD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2021	6/14/2021	5	10	
2	Site Preparation	Site Preparation	6/15/2021	6/15/2021	5	1	
3	Grading	Grading	6/16/2021	6/17/2021	5	2	
4	Building Construction	Building Construction	6/18/2021	11/4/2021	5	100	
5	Paving	Paving	11/5/2021	11/11/2021	5	5	
6	Architectural Coating	Architectural Coating	11/12/2021	11/18/2021	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 31,500; Non-Residential Outdoor: 10,500; Striped Parking Area: 0 (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	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Rubber Tired Dozers	1	1.00	247	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

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	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	9.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	2.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

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	3.9800e-003	0.0363	0.0379	6.0000e-005		2.0400e-003	2.0400e-003		1.9400e-003	1.9400e-003	0.0000	5.2047	5.2047	9.7000e-004	0.0000	5.2289
Total	**3.9800e-003**	**0.0363**	**0.0379**	**6.0000e-005**		**2.0400e-003**	**2.0400e-003**		**1.9400e-003**	**1.9400e-003**	**0.0000**	**5.2047**	**5.2047**	**9.7000e-004**	**0.0000**	**5.2289**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	1.3000e-004	1.3200e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3465	0.3465	1.0000e-005	0.0000	0.3467
Total	**1.9000e-004**	**1.3000e-004**	**1.3200e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3465**	**0.3465**	**1.0000e-005**	**0.0000**	**0.3467**

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	3.9800e-003	0.0363	0.0379	6.0000e-005		2.0400e-003	2.0400e-003		1.9400e-003	1.9400e-003	0.0000	5.2047	5.2047	9.7000e-004	0.0000	5.2289
Total	**3.9800e-003**	**0.0363**	**0.0379**	**6.0000e-005**		**2.0400e-003**	**2.0400e-003**		**1.9400e-003**	**1.9400e-003**	**0.0000**	**5.2047**	**5.2047**	**9.7000e-004**	**0.0000**	**5.2289**

3.2 Demolition - 2021

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	1.9000e-004	1.3000e-004	1.3200e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3465	0.3465	1.0000e-005	0.0000	0.3467
Total	**1.9000e-004**	**1.3000e-004**	**1.3200e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3465**	**0.3465**	**1.0000e-005**	**0.0000**	**0.3467**

3.3 Site Preparation - 2021

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					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	3.9100e-003	2.0100e-003	0.0000		1.5000e-004	1.5000e-004		1.4000e-004	1.4000e-004	0.0000	0.4276	0.4276	1.4000e-004	0.0000	0.4310
Total	**3.2000e-004**	**3.9100e-003**	**2.0100e-003**	**0.0000**	**2.7000e-004**	**1.5000e-004**	**4.2000e-004**	**3.0000e-005**	**1.4000e-004**	**1.7000e-004**	**0.0000**	**0.4276**	**0.4276**	**1.4000e-004**	**0.0000**	**0.4310**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0173	0.0173	0.0000	0.0000	0.0173
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0173**	**0.0173**	**0.0000**	**0.0000**	**0.0173**

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					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	3.9100e-003	2.0100e-003	0.0000		1.5000e-004	1.5000e-004		1.4000e-004	1.4000e-004	0.0000	0.4276	0.4276	1.4000e-004	0.0000	0.4310
Total	**3.2000e-004**	**3.9100e-003**	**2.0100e-003**	**0.0000**	**2.7000e-004**	**1.5000e-004**	**4.2000e-004**	**3.0000e-005**	**1.4000e-004**	**1.7000e-004**	**0.0000**	**0.4276**	**0.4276**	**1.4000e-004**	**0.0000**	**0.4310**

3.3 Site Preparation - 2021

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	1.0000e-005	1.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0173	0.0173	0.0000	0.0000	0.0173
Total	**1.0000e-005**	**1.0000e-005**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0173**	**0.0173**	**0.0000**	**0.0000**	**0.0173**

3.4 Grading - 2021

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					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0000e-004	7.2500e-003	7.5700e-003	1.0000e-005		4.1000e-004	4.1000e-004		3.9000e-004	3.9000e-004	0.0000	1.0409	1.0409	1.9000e-004	0.0000	1.0458
Total	**8.0000e-004**	**7.2500e-003**	**7.5700e-003**	**1.0000e-005**	**7.5000e-004**	**4.1000e-004**	**1.1600e-003**	**4.1000e-004**	**3.9000e-004**	**8.0000e-004**	**0.0000**	**1.0409**	**1.0409**	**1.9000e-004**	**0.0000**	**1.0458**

3.4 Grading - 2021

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	4.0000e-005	3.0000e-005	2.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0693	0.0693	0.0000	0.0000	0.0693
Total	**4.0000e-005**	**3.0000e-005**	**2.6000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0693**	**0.0693**	**0.0000**	**0.0000**	**0.0693**

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					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.0000e-004	7.2500e-003	7.5700e-003	1.0000e-005		4.1000e-004	4.1000e-004		3.9000e-004	3.9000e-004	0.0000	1.0409	1.0409	1.9000e-004	0.0000	1.0458
Total	**8.0000e-004**	**7.2500e-003**	**7.5700e-003**	**1.0000e-005**	**7.5000e-004**	**4.1000e-004**	**1.1600e-003**	**4.1000e-004**	**3.9000e-004**	**8.0000e-004**	**0.0000**	**1.0409**	**1.0409**	**1.9000e-004**	**0.0000**	**1.0458**

3.4 Grading - 2021

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	4.0000e-005	3.0000e-005	2.6000e-004	0.0000	8.0000e-005	0.0000	8.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0693	0.0693	0.0000	0.0000	0.0693
Total	**4.0000e-005**	**3.0000e-005**	**2.6000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0693**	**0.0693**	**0.0000**	**0.0000**	**0.0693**

3.5 Building Construction - 2021

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	0.0388	0.3993	0.3632	5.7000e-004		0.0224	0.0224		0.0206	0.0206	0.0000	50.0410	50.0410	0.0162	0.0000	50.4456
Total	**0.0388**	**0.3993**	**0.3632**	**5.7000e-004**		**0.0224**	**0.0224**		**0.0206**	**0.0206**	**0.0000**	**50.0410**	**50.0410**	**0.0162**	**0.0000**	**50.4456**

3.5 Building Construction - 2021

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	4.8000e-004	0.0165	3.0200e-003	4.0000e-005	9.9000e-004	5.0000e-005	1.0400e-003	2.9000e-004	4.0000e-005	3.3000e-004	0.0000	4.0127	4.0127	3.1000e-004	0.0000	4.0203
Worker	1.7500e-003	1.1500e-003	0.0119	3.0000e-005	3.6000e-003	2.0000e-005	3.6200e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	3.1184	3.1184	8.0000e-005	0.0000	3.1204
Total	**2.2300e-003**	**0.0177**	**0.0149**	**7.0000e-005**	**4.5900e-003**	**7.0000e-005**	**4.6600e-003**	**1.2500e-003**	**6.0000e-005**	**1.3100e-003**	**0.0000**	**7.1311**	**7.1311**	**3.9000e-004**	**0.0000**	**7.1408**

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	0.0388	0.3993	0.3632	5.7000e-004		0.0224	0.0224		0.0206	0.0206	0.0000	50.0410	50.0410	0.0162	0.0000	50.4456
Total	**0.0388**	**0.3993**	**0.3632**	**5.7000e-004**		**0.0224**	**0.0224**		**0.0206**	**0.0206**	**0.0000**	**50.0410**	**50.0410**	**0.0162**	**0.0000**	**50.4456**

3.5 Building Construction - 2021

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	4.8000e-004	0.0165	3.0200e-003	4.0000e-005	9.9000e-004	5.0000e-005	1.0400e-003	2.9000e-004	4.0000e-005	3.3000e-004	0.0000	4.0127	4.0127	3.1000e-004	0.0000	4.0203
Worker	1.7500e-003	1.1500e-003	0.0119	3.0000e-005	3.6000e-003	2.0000e-005	3.6200e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	3.1184	3.1184	8.0000e-005	0.0000	3.1204
Total	**2.2300e-003**	**0.0177**	**0.0149**	**7.0000e-005**	**4.5900e-003**	**7.0000e-005**	**4.6600e-003**	**1.2500e-003**	**6.0000e-005**	**1.3100e-003**	**0.0000**	**7.1311**	**7.1311**	**3.9000e-004**	**0.0000**	**7.1408**

3.6 Paving - 2021

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	1.8000e-003	0.0168	0.0177	3.0000e-005		8.8000e-004	8.8000e-004		8.2000e-004	8.2000e-004	0.0000	2.3481	2.3481	6.8000e-004	0.0000	2.3652
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.8000e-003**	**0.0168**	**0.0177**	**3.0000e-005**		**8.8000e-004**	**8.8000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.3481**	**2.3481**	**6.8000e-004**	**0.0000**	**2.3652**

3.6 Paving - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.1000e-004	1.1900e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3118	0.3118	1.0000e-005	0.0000	0.3120
Total	**1.8000e-004**	**1.1000e-004**	**1.1900e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3118**	**0.3118**	**1.0000e-005**	**0.0000**	**0.3120**

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	1.8000e-003	0.0168	0.0177	3.0000e-005		8.8000e-004	8.8000e-004		8.2000e-004	8.2000e-004	0.0000	2.3481	2.3481	6.8000e-004	0.0000	2.3652
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.8000e-003**	**0.0168**	**0.0177**	**3.0000e-005**		**8.8000e-004**	**8.8000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.3481**	**2.3481**	**6.8000e-004**	**0.0000**	**2.3652**

3.6 Paving - 2021

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	1.8000e-004	1.1000e-004	1.1900e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.3118	0.3118	1.0000e-005	0.0000	0.3120
Total	**1.8000e-004**	**1.1000e-004**	**1.1900e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.3118**	**0.3118**	**1.0000e-005**	**0.0000**	**0.3120**

3.7 Architectural Coating - 2021

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					
Archit. Coating	0.1460					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.1466**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

3.7 Architectural Coating - 2021

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	2.0000e-005	1.0000e-005	1.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0347	0.0347	0.0000	0.0000	0.0347
Total	**2.0000e-005**	**1.0000e-005**	**1.3000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0347**	**0.0347**	**0.0000**	**0.0000**	**0.0347**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1460					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.5000e-004	3.8200e-003	4.5400e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.6383	0.6383	4.0000e-005	0.0000	0.6394
Total	**0.1466**	**3.8200e-003**	**4.5400e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.6383**	**0.6383**	**4.0000e-005**	**0.0000**	**0.6394**

3.7 Architectural Coating - 2021

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	2.0000e-005	1.0000e-005	1.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0347	0.0347	0.0000	0.0000	0.0347
Total	**2.0000e-005**	**1.0000e-005**	**1.3000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0347**	**0.0347**	**0.0000**	**0.0000**	**0.0347**

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	0.0386	0.4232	0.3983	2.0100e-003	0.1231	1.7100e-003	0.1248	0.0331	1.6100e-003	0.0347	0.0000	186.2672	186.2672	0.0121	0.0000	186.5683
Unmitigated	0.0386	0.4232	0.3983	2.0100e-003	0.1231	1.7100e-003	0.1248	0.0331	1.6100e-003	0.0347	0.0000	186.2672	186.2672	0.0121	0.0000	186.5683

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	146.37	27.72	14.28	322,752	322,752
Total	146.37	27.72	14.28	322,752	322,752

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.511925	0.031902	0.170344	0.119204	0.018408	0.005097	0.021580	0.111258	0.001794	0.001564	0.005229	0.000954	0.000741

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	2.3600e-003	0.0215	0.0181	1.3000e-004		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	23.3878	23.3878	4.5000e-004	4.3000e-004	23.5267
NaturalGas Unmitigated	2.3600e-003	0.0215	0.0181	1.3000e-004		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	23.3878	23.3878	4.5000e-004	4.3000e-004	23.5267

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	438270	2.3600e-003	0.0215	0.0181	1.3000e-004		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	23.3878	23.3878	4.5000e-004	4.3000e-004	23.5267
Total		**2.3600e-003**	**0.0215**	**0.0181**	**1.3000e-004**		**1.6300e-003**	**1.6300e-003**		**1.6300e-003**	**1.6300e-003**	**0.0000**	**23.3878**	**23.3878**	**4.5000e-004**	**4.3000e-004**	**23.5267**

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	438270	2.3600e-003	0.0215	0.0181	1.3000e-004		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	23.3878	23.3878	4.5000e-004	4.3000e-004	23.5267
Total		**2.3600e-003**	**0.0215**	**0.0181**	**1.3000e-004**		**1.6300e-003**	**1.6300e-003**		**1.6300e-003**	**1.6300e-003**	**0.0000**	**23.3878**	**23.3878**	**4.5000e-004**	**4.3000e-004**	**23.5267**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	185220	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	185220	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	0.0966	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
Unmitigated	0.0966	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004

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	0.0146					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0820					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
Total	**0.0966**	**0.0000**	**1.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.8000e-004**	**3.8000e-004**	**0.0000**	**0.0000**	**4.0000e-004**

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	0.0146					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0820					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.0000e-005	0.0000	1.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	3.8000e-004	3.8000e-004	0.0000	0.0000	4.0000e-004
Total	**0.0966**	**0.0000**	**1.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**3.8000e-004**	**3.8000e-004**	**0.0000**	**0.0000**	**4.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.5407	0.1582	3.7400e-003	6.6101
Unmitigated	1.5407	0.1582	3.7400e-003	6.6101

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.85625 / 0	1.5407	0.1582	3.7400e-003	6.6101
Total		**1.5407**	**0.1582**	**3.7400e-003**	**6.6101**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.85625 / 0	1.5407	0.1582	3.7400e-003	6.6101
Total		**1.5407**	**0.1582**	**3.7400e-003**	**6.6101**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.2859	0.3124	0.0000	13.0956
Unmitigated	5.2859	0.3124	0.0000	13.0956

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	26.04	5.2859	0.3124	0.0000	13.0956
Total		**5.2859**	**0.3124**	**0.0000**	**13.0956**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	26.04	5.2859	0.3124	0.0000	13.0956
Total		**5.2859**	**0.3124**	**0.0000**	**13.0956**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B

Biological Evaluation Report

Biological Resource Evaluation

Monterey Park Tract Sewer Project

Stanislaus County, California

PREPARED FOR:

Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93290

PREPARED BY:

Colibri Ecological Consulting, LLC
9493 N Fort Washington Road, Suite 108
Fresno, CA 93730
www.colibri-ecology.com

August 2020

Contents

Figures

Tables

Appendices

Executive Summary

Monterey Park Tract Community Services District proposes to construct a sewer system in Monterey Park Tract, Stanislaus County, California. The proposed project (Project) will involve constructing (1) a community sewer collection system to convey wastewater to a centralized location and (2) a new wastewater treatment facility for treatment and disposal of the wastewater. The new sewer collection system will require installing approximately 3800 feet of 6-inch gravity collection mains and 10 manholes. Sewer system connections to 51 dwellings will require 4-inch sewer pipeline tied into the 6-inch sewer main. The treatment facility will consist of one 10,000-gallon septic tank, two 20,000-gallon septic tanks, two treatment units, and a leach field on an approximately 0.5-acre site.

This project will be funded by 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. As such, the environmental review for the Project must meet state requirements under the California Environmental Quality Act (CEQA) as well as certain federal requirements. 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.

To evaluate whether the Project may affect biological resources under CEQA-Plus purview, we (1) obtained official lists from the United States Fish and Wildlife Service, the California Department of Fish and Wildlife, and the 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*). 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
CWSRF	Clean Water State Revolving Fund
CNDDB	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
MTPCSD	Monterey Park Tract Community Services District
NMFS	National Marine Fisheries Service
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

1.0 Introduction

1.1 Background

Monterey Park Tract Community Services District (MPTCSD) proposes to install a centralized sewer system in the community of Monterey Park Tract (the Project). MPTCSD 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 state requirements under the California Environmental Quality Act (CEQA) as well as certain federal requirements. 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, and various other sections of California Fish and Game Code. 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), Regional Water Quality 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

This Project will involve constructing (1) a community sewer collection system to convey wastewater to a centralized location and (2) a new wastewater treatment facility for treatment and disposal of the wastewater. The sewer collection system will require approximately 3800 feet of 6-inch gravity collection sewer main and 10 manholes. Sewer system infrastructure will be installed at 51 dwellings using 4-inch pipeline connected to the 6-inch sewer main. The treatment facility will consist of one 10,000-gallon septic tank, two 20,000-gallon septic tanks, two treatment units, and a leach field on an approximately 0.5-acre site in the community.

1.3 Project Location

The Project site is about 5 miles southwest of the City of Ceres in unincorporated Stanislaus County (Figure 1). The community of Monterey Park Tract comprises roughly 30 acres and is surrounded by agricultural development on all sides (Figures 1 and 2).

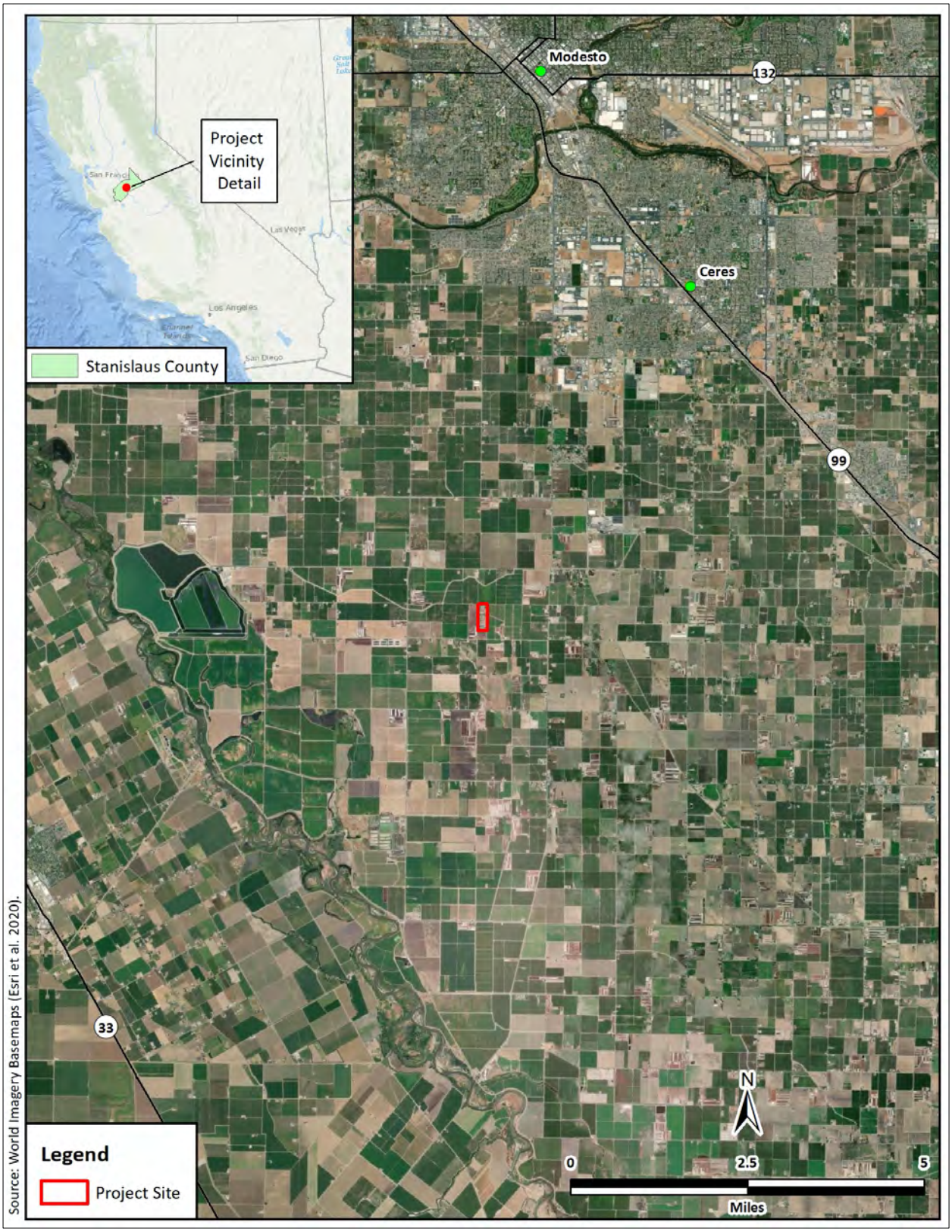


Figure 1. Site vicinity map.

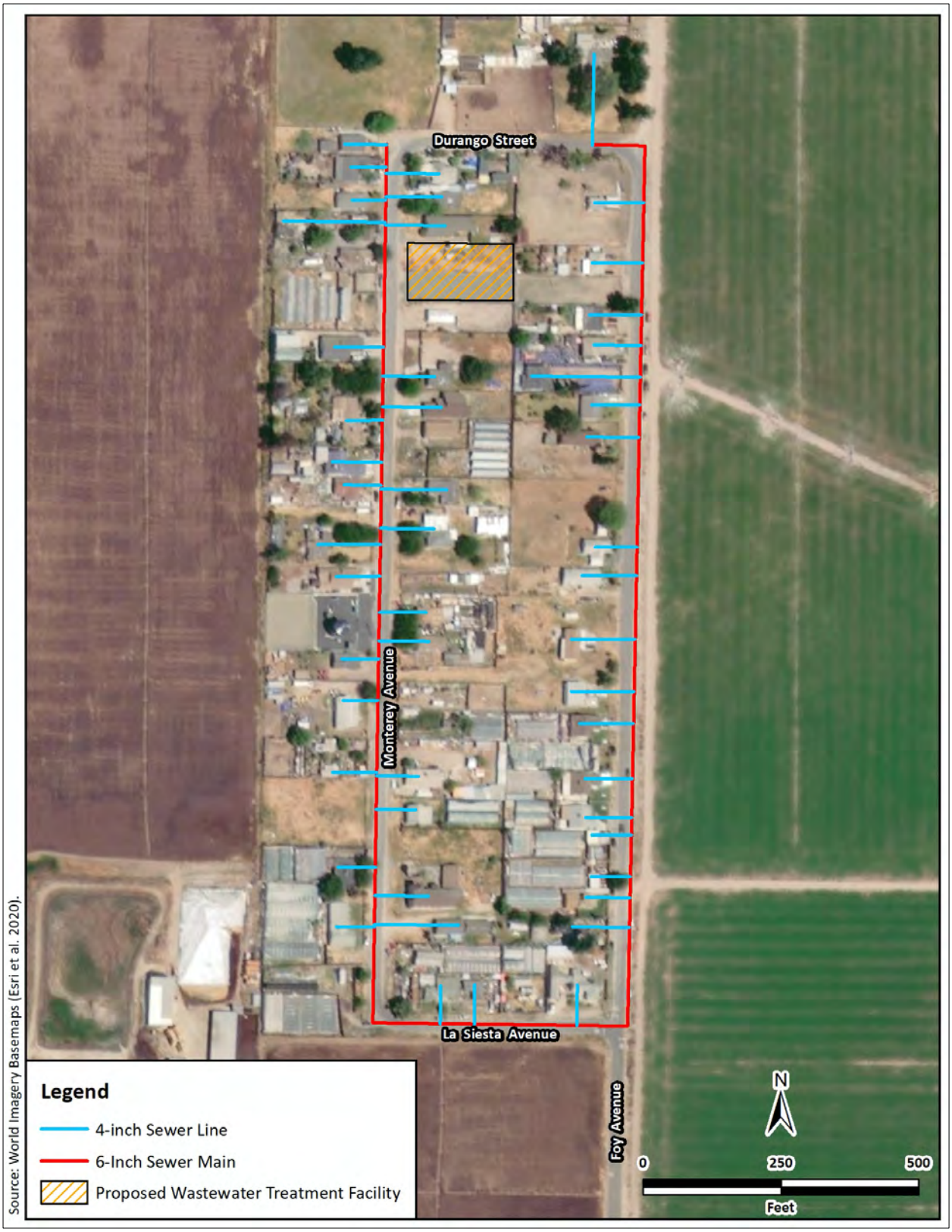


Figure 2. Project site map.

1.4 Purpose and Need of Proposed Project

The purpose of the Project is to replace individual septic tanks and leach fields with a centralized sewer collection system and treatment facility. The Project is needed to provide a sustainable and affordable way to provide safe and reliable sewer service to the community due to ongoing concerns about groundwater contamination caused by an elevated density of individual septic systems.

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 Associate Scientist Kristofer Robison and Senior Scientist Joshua Reece from the United States Fish and Wildlife Service (USFWS) website (https://ecos.fws.gov/ipac/) on 10 August 2020 (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 United States Fish and Wildlife Services (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 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 project within its jurisdiction must determine whether any federally listed species may be present on the project site and determine whether the proposed Project may affect such species. Under the FESA, habitat loss is an impact to a species. In addition, the agency is required to determine whether the Project is likely to jeopardize the continued existence of any species that is listed or proposed for listing under the FESA or result in the destruction or adverse modification of critical habitat proposed or designated for such species (16 United States Code [USC] § 1536[3], [4]). Therefore, project-related impacts 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 and updated in 2018 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 2018).

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)." The definition of EFH is "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 CDFW 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 the California 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 2020). 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.

***Porter-Cologne Water Quality Control Act*.** The Porter-Cologne Water Quality Control Act (CWC § 13000 et. sec.) was established in 1969 and entrusts the State Water Resources Control Board and nine Regional Water Quality Control Boards (collectively Water Boards) with the responsibility to preserve and enhance all beneficial uses of California's diverse waters. The Act grants the Water Boards authority to establish water quality objectives and regulate point- and nonpoint-source pollution discharge to the state's surface and ground waters. Under the auspices of the United States Environmental Protection Agency, the Water Boards are

responsible for certifying, under Section 401 of the federal Clean Water Act, that activities affecting waters of the United States comply California water quality standards. The Porter-Cologne Water Quality Control Act addresses all "waters of the State," which are more broadly defined than waters of the Unites States. Waters of the State include any surface water or groundwater, including saline waters, within the boundaries of the state. They include artificial as well as natural water bodies and federally jurisdictional and federally non-jurisdictional waters. The Water Boards may issue a Waste Discharge Requirement permit for projects that will affect only federally non-jurisdictional waters of the State.

2.0 Methods

2.1 Desktop Review

We obtained an official species list for the Project (USFWS 2020a, Appendix A) as a framework for the evaluation and reconnaissance survey. In addition, we searched the California Natural Diversity Data Base (CNDDB 2020, Appendix B) and the CNPS Inventory of Rare and Endangered Plants (CNPS 2020, Appendix C) for records of special-status plant and animal species from the vicinity of the Project site. Regional lists of special-status species were compiled using USFWS, CNDDB, and CNPS database searches confined to the Brush Lake 7.5-minute United States Geological Survey (USGS) topographic quad, which encompasses the Project site, and the eight surrounding quads (Ripon, Salida, Riverbank, Westley, Ceres, Patterson, Crows Landing, and Hatch). A local list of special-status species was compiled using CNDDB records from within 5 miles of the Project site. Species that lack a special-status designation by state or federal regulatory agencies or public interest 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 2020) and other sources, USGS topographic maps, the Web Soil Survey (NRCS 2020), and relevant literature.

2.2 Reconnaissance Survey

Colibri Associate Scientist Kristofer Robison and Senior Scientist Joshua Reece conducted a field reconnaissance survey of the Project site on 11 August 2020. 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 (Figure 3). 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/lsa) and under the Porter-Cologne Water Quality Control Act. To evaluate the potential occurrence of nesting special-status raptors, a 0.5-mile buffer around the Project site was surveyed by driving public roads and scanning the area with 10x42 binoculars (Figure 3). All plants except ornamentals and all animals (vertebrate wildlife species) observed in the survey area were identified and documented.

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, waters of the State, 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, or
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 any of 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; or

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.

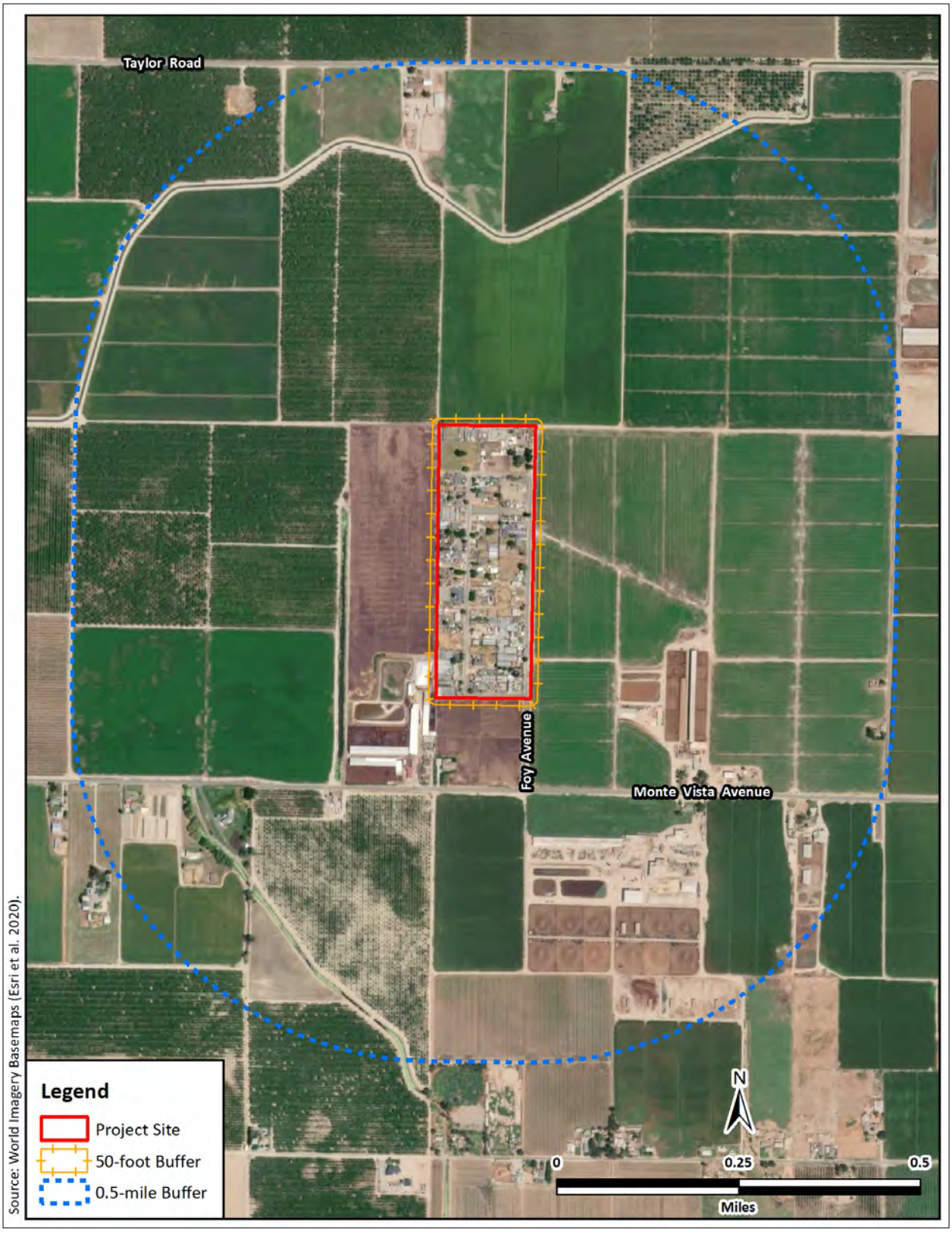


Figure 3. Reconnaissance survey area map.

3.0 Results

3.1 Desktop Review

The official species list for the Project included seven species listed as threatened or endangered under the FESA (USFWS 2020a, Table 1, Appendix A). None of those species could occur on or near the Project site due to either (1) the lack of habitat, (2) the Project site being outside the current range of the species, or (3) the presence of development that would otherwise preclude occurrence (Table 1). As identified in the species list, the Project site does not occur in USFWS-designated Critical Habitat for any species (USFWS 2020a, Appendix A).

Searching the CNDDB for records of special-status species from within the Brush Lake 7.5-minute USGS topographic quad and the eight surrounding quads produced 161 records of 51 species (Table 1, Appendix B). Of those 51 species, 10 are not considered further because state or federal regulatory agencies or public interest groups do not recognize them through special designation (Appendix B). Of the remaining 41 species, 14 are known from within 5 miles of the Project site (Table 1, Figure 4). Of those 14 species, only Swainson's hawk (*Buteo swainsoni*) could occur on or near the Project site (Table 1). All other special-status species have no potential to occur due to either (1) the lack of habitat, (2) the Project site being outside the current range of the species, (3) they were not detected during the reconnaissance survey, or (4) a combination thereof.

Searching the CNPS inventory of rare and endangered plants of California yielded 13 species with a California Rare Plant Rank (CRPR) of 1B or 2B (Table 1, Appendix C, CNPS 2020). None of those species are expected to occur on or near the Project site due to the lack of habitat (Table 1).

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			
Delta button-celery[3] (*Eryngium racemosum*)	SE, 1B.1	Seasonally flooded clay depressions in floodplains.	**None.** Habitat lacking; the Project site consists of urban and disturbed land cover.
Crotch bumble bee[3] (*Bombus crotchii*)	SCE	Open grasslands and scrub.	**None.** Habitat lacking; the Project site consists of urban and disturbed land cover.
Conservancy fairy shrimp (*Branchinecta conservatio*)	FE	Vernal pools and depressions.	**None.** Habitat lacking; no vernal pools or other ephemeral aquatic

Species	Status[1]	Habitat	Potential to Occur[2]
			habitats found in the survey area.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	Vernal pools; some artificial depressions, stock ponds, vernal swales, ephemeral drainages and seasonal wetlands.	**None.** Habitat lacking; no vernal pools or other ephemeral aquatic habitats found in the survey area.
Valley elderberry longhorn beetle[3] (*Desmocerus californicus dimorphus*)	FT	Elderberry (*Sambucus* sp.) plants with stems > 1-inch diameter at ground level.	**None.** Habitat lacking; no elderberry plants were found in the survey area.
Vernal pool tadpole shrimp (*Lepidurus packardi*)	FE	Vernal pools, clay flats, alkaline pools, and ephemeral stock tanks.	**None.** Habitat lacking; no vernal pools or other ephemeral aquatic habitats found in the survey area.
Delta smelt (*Hypomesus transpacificus*)	FT, SE	Estuarine waters in the Sacramento-San Joaquin River delta.	**None.** Habitat lacking; no connectivity to the aquatic habitat this species requires.
Steelhead trout – Central California Coast Distinct Population Segment[3] (*Oncorhynchus mykiss irideus*)	FT	Streams with adequate flows in coastal watersheds from Shasta to Fresno counties in California.	**None.** Habitat lacking; no connectivity to the aquatic habitat this species requires.
California tiger salamander (*Ambystoma californiense)*	FT, ST	Vernal pools or other seasonal ponds for breeding; small mammal burrows for upland cover.	**None.** Habitat lacking; no potential aquatic breeding habitat found in the survey area.
Foothill yellow-legged frog (*Rana boylii*)	SE, SSSC	Perennial streams and rivers with rocky substrates and open, sunny banks in forests, chaparral, or woodlands.	**None.** Habitat lacking; no potential aquatic breeding habitat found in the survey area.
California red-legged frog (*Rana draytonii*)	FT, SSSC	Creeks, ponds, and marshes for breeding; small mammal burrows for upland cover.	**None.** Habitat lacking; no potential aquatic breeding habitat found in the survey area.

Species	Status[1]	Habitat	Potential to Occur[2]
Giant garter snake (*Thamnophis gigas*)	FT, ST	Marshes, sloughs, ponds, or other permanent sources of water with emergent vegetation and grassy banks or open areas during active season; uplands with underground refuges or crevices during inactive season.	**None.** Habitat lacking; no potential aquatic breeding habitat found in the survey area.
Tricolored blackbird[3] (*Agelaius tricolor*)	ST	Freshwater emergent wetlands, agricultural fields, irrigated pastures, grassland, silage fields near dairies.	**None.** Habitat lacking; although foraging habitat was found in the survey area, no wetland habitat or silage fields that could support nesting were found.
Swainson's hawk[3] (*Buteo swainsoni*)	ST	Large trees for nesting with adjacent grasslands, alfalfa fields, or grain fields for foraging.	**Present.** An adult was observed flying in the survey area near a freshly harvested alfalfa field; large trees that could support nesting were also found.
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	FT, SE	Open woodlands with dense, low vegetation along waterways.	**None.** Habitat lacking; no suitable land cover types present in the survey area.
Least Bell's vireo (*Vireo bellii pusillus*)	FE, SE	Riparian forest with dense understory.	**None.** Habitat lacking; no suitable land cover types present in the survey area.
Riparian brush rabbit (*Sylvilagus bachmani riparius*)	FE, SE	Riparian forests with a dense shrubby understory.	**None.** Habitat lacking; no suitable land cover types present in the survey area.
San Joaquin kit fox (*Vulpes macrotis mutica*)	FE, ST	Grassland and upland scrub.	**None.** Habitat lacking; no suitable land cover types present in the survey area.
State Species of Special Concern			

Species	Status[1]	Habitat	Potential to Occur[2]
Hardhead[3] (*Mylopharodon conocephalus*)	SSSC	Undisturbed areas of larger streams with high water quality.	**None.** Habitat lacking; no connectivity to the aquatic habitat this species requires.
Sacramento splittail (*Pogonichthys macrolepidotus*)	SSSC	Rivers, sloughs, and lakes in the Sacramento and San Joaquin valleys.	**None.** Habitat lacking; no connectivity to the aquatic habitat this species requires.
Western spadefoot (*Spea hammondii*)	SSSC	Rain pools for breeding and small mammal burrows or other suitable refugia for nonbreeding upland cover.	**None.** Habitat lacking; no rain pools or other potential breeding habitat found in the survey area.
Northwestern pond turtle[3] (*Actinemys marmorata*)	SSSC	Ponds, rivers, marshes, streams, and irrigation ditches, usually with aquatic vegetation and woody debris for basking and adjacent natural upland areas for egg laying.	**None.** Habitat lacking; no suitable land cover types present in the survey area.
Northern California legless lizard (*Anniella pulchra*)	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 present in the survey area.
San Joaquin coachwhip (*Masticophis flagellum ruddocki*)	SSSC	Chenopod scrub and valley and foothill grassland with small mammal burrows for refuge and reproduction.	**None.** Habitat lacking; no suitable land cover types present in the survey area.
Burrowing owl (*Athene cunicularia*)	SSSC	Grassland and upland scrub with friable soil; some agricultural or other developed and disturbed areas with	**None.** Habitat lacking; no suitable land cover types or ground squirrel burrows present in the survey area.

Species	Status[1]	Habitat	Potential to Occur[2]
		ground squirrel burrows.	
Loggerhead shrike (*Lanius ludovicianus*)	SSSC	Open areas with short vegetation and well-spaced shrubs or low trees for nesting.	**None.** Habitat lacking; although foraging habitat was found in the survey area, no nesting habitat is present; no records from within 5 miles.
Song sparrow – "Modesto" population (*Melospiza melodia*)	SSSC	Emergent freshwater marshes, willow thickets, riparian forests, vegetated irrigation canals and levees.	**None.** Habitat lacking; no suitable land cover types present in the survey area.
Townsend's big-eared bat (*Corynorhinus townsendii*)	SSSC	Caves, tunnels, buildings, or other structures for roosting.	**None.** Habitat lacking; no suitable land cover types present in the survey area.
Riparian woodrat (*Neotoma fuscipes riparia*)	SSSC	Dense riparian forest along the Stanislaus River in and near Caswell Memorial State Park.	**None.** Habitat lacking; Project site is outside species' known range; no suitable land cover types present in the survey area.
American badger (*Taxidea taxus*)	SSSC	Open, dry areas with friable soils and small mammal populations in grassland, conifer forests, and desert.	**None.** Habitat lacking; no suitable land cover types present in the survey area.
California Rare Plants			
Alkali milk-vetch[3] (*Astragalus tener* var. *tener*)	1B.2	Alkaline flats and vernally moist meadows below 197 feet elevation.	**None.** Habitat lacking; the Project site consists of urban and disturbed land cover.
Heartscale[3] (*Atriplex cordulata* var. *cordulata*)	1B.2	Grasslands, meadows and seeps, and chenopod scrub communities with saline or alkaline soils below 230 feet elevation.	**None.** Habitat lacking; the Project site consists of urban and disturbed land cover.
Lesser saltscale[3] (*Atriplex minuscula*)	1B.1	Saline or alkaline soils in chenopod scrub, playa, and grassland in	**None.** Habitat lacking; the Project site consists of

Species	Status[1]	Habitat	Potential to Occur[2]
		the San Joaquin Valley below 328 feet elevation.	urban and disturbed land cover.
Vernal pool smallscale[3] (*Atriplex persistens*)	1B.2	Alkaline vernal pools in the Central Valley below 377 feet elevation.	**None.** Habitat lacking; no vernal pools or other ephemeral aquatic habitats found in the survey area.
Subtle orache (*Atriplex subtilis*)	1B.2	Saline depressions below 230 feet elevation.	**None.** Habitat lacking; the Project site consists of urban and disturbed land cover.
Big tarplant (*Blepharizonia plumosa*)	1B.1	Dry slopes in grassland below 1640 feet elevation.	**None.** Habitat lacking; the Project site consists of urban and disturbed land cover.
Lemmon's jewelflower (*Caulanthus lemmonii*)	1B.2	Pinyon and juniper woodland, and valley and foothill grassland at 240–4800 feet elevation.	**None.** Habitat lacking; the Project site is below the known elevation range and consists of urban and disturbed land cover.
Spiny-sepaled button-celery (*Eryngium spinosepalum*)	1B.2	Vernal pools and swales in valley and foothill grassland at 330–4200 feet elevation.	**None.** Habitat lacking; the Project site is below the known elevation range; no vernal pools or other ephemeral aquatic habitats found in the survey area.
Alkali-sink goldfields[3] (*Lasthenia chrysantha*)	1B.1	Vernal pools and wet saline flats below 300 feet elevation.	**None.** Habitat lacking; no vernal pools or other ephemeral aquatic habitats found in the survey area.
Shining navarretia (*Navarretia nigelliformis* ssp. *radians*)	1B.2	Vernal pools with clay soils in cismontane woodland and valley and foothill grassland at 490–3300 feet elevation.	**None.** Habitat lacking; the Project site is below the known elevation range; no vernal pools or other ephemeral aquatic habitats found in the survey area.
California alkali grass[3] (*Puccinellia simplex*)	1B.2	Scrub, meadows, seeps, grassland,	**None.** Habitat lacking; no vernal pools or other

Species	Status[1]	Habitat	Potential to Occur[2]
		vernal pools, saline flats, and mineral springs below 3000 feet elevation.	ephemeral aquatic habitats found in the survey area.
Prairie wedge grass (*Sphenopholis obtusata*)	2B.2	Wet meadows, streambanks, and ponds at 787–9416 feet elevation.	**None.** Habitat lacking; the Project site is below known elevation range; no vernal pools or other ephemeral aquatic habitats found in the survey area.

CNDDB (2020), CNPS (2020), USFWS (2020a).

Status[1]	**Potential to Occur[2]**	
FE = Federally listed Endangered	None:	Neither species nor sign observed; conditions unsuitable for occurrence.
FT = Federally listed Threatened	Low:	Neither species nor sign observed; conditions marginal for occurrence.
SCE = State Candidate for listing as Endangered	Moderate:	Neither species nor sign observed, but conditions suitable for occurrence.
SE = State-listed Endangered	Present:	Species or sign observed; conditions suitable for occurrence.
ST = State-listed Threatened		
SSSC = State Species of Special Concern		

CNPS California Rare Plant Rank[1]:	**Threat Ranks[1]:**
1B – plants rare, threatened, or endangered in California and elsewhere.	0.1 – seriously threatened in California (> 80% of occurrences).
2B – plants rare, threatened, or endangered in California but more common elsewhere.	0.2 – moderately threatened in California (20–80% of occurrences).

[3]Species known from within 5 miles of the Project site.

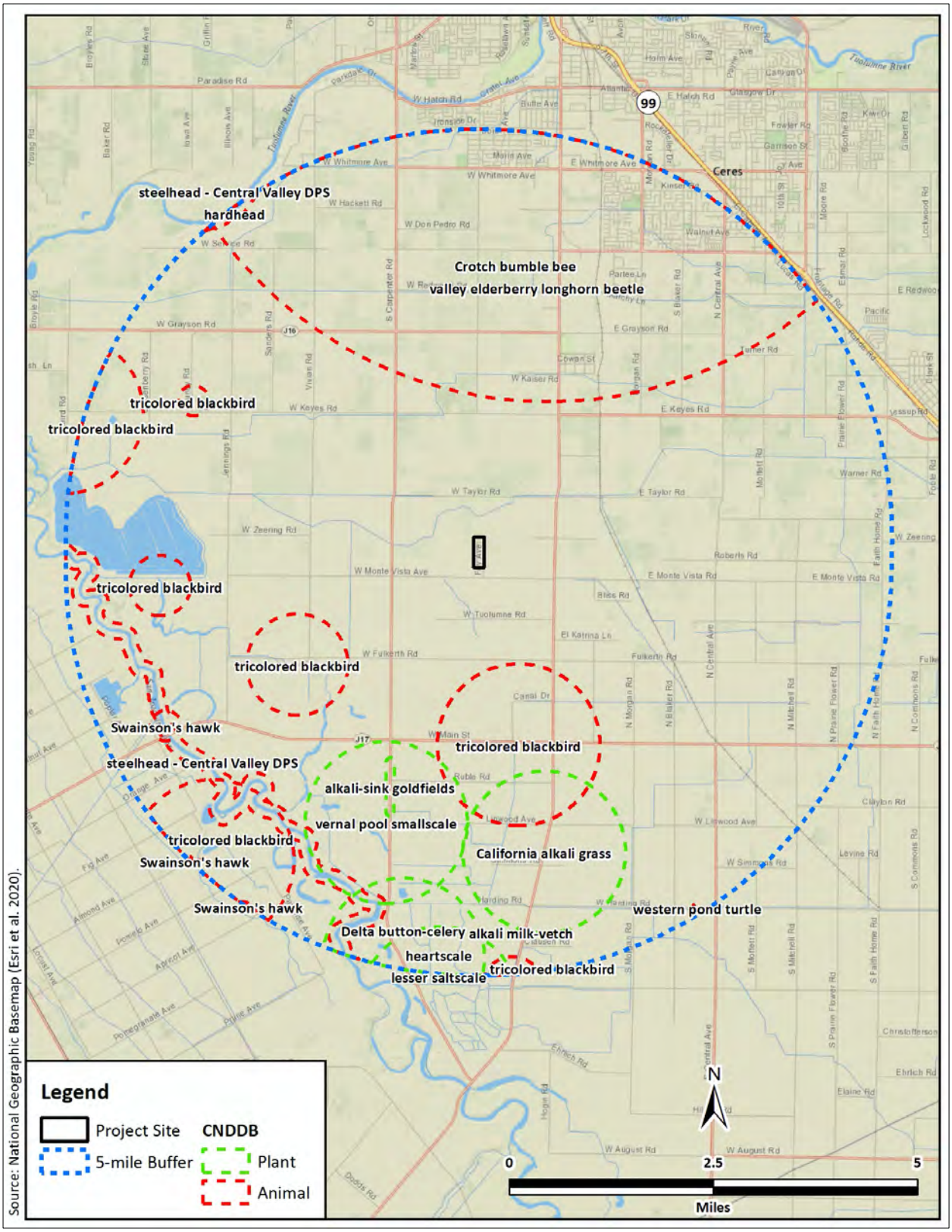


Figure 4. CNDDB occurrence map.

3.2 Reconnaissance Survey

3.2.1 Land Use and Habitats

The Project site is coincident with the rural community of Monterey Park Tract and consists of residential homes, a community center, a church, paved streets, and disturbed road shoulders (Figures 5–7). The site of the planned wastewater treatment facility is disturbed, partly fenced, levelled, and half-covered in gravel (Figure 8). The Project site is bordered by agricultural development on all sides (Figures 2 and 7), with corn fields to the east, south, and west; alfalfa fields to the north, and a small dairy farm to the southwest (Figure 2). The Project site is underlain by a mix of Hilmar loamy sand, slightly saline, 0–1% slopes; Hilmar loamy sand, 0–1% slopes; Delhi loamy sand 0–3% slopes; and Dello loamy sand, 0–1% slopes (NRCS 2020). The elevation of the Project site ranges from 59–69 feet above mean sea level (Google 2020).

Figure 5. Photograph showing a paved street, disturbed road shoulder, and fenced homes in a residential neighborhood.

Figure 6. Photograph showing a paved street, disturbed road shoulder, fenced homes, and agricultural land cover.

Figure 7. Photograph showing a paved street, disturbed road shoulder, fenced homes, and agricultural land cover.

Figure 8. Photograph showing disturbed land cover at the planned site of the future wastewater treatment facility.

3.2.2 Plant and Animal Species Observed

A total of 24 plant species (7 native and 17 nonnative) were found during the reconnaissance survey (Table 2). Fifteen bird species and one mammal species were also detected (Table 2).

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

Common Name	Scientific Name	Status
Plants		
Family Amaranthaceae		
Redroot pigweed	*Amaranthus retroflexus*	Nonnative
Family Arecaceae		
Mexican fan palm	*Washingtonia robusta*	Nonnative
Family Asteraceae		
Yellow star-thistle	*Centaurea solstitialis*	Nonnative

Common spikeweed	*Centromadia pungens*	Native
Flax-leaved horseweed	*Erigeron bonariensis*	Nonnative
Common sunflower	*Helianthus annuus*	Native
Prickly lettuce	*Lactuca serriola*	Nonnative
Spiny cocklebur	*Xanthium spinosum*	Nonnative
Family Boraginaceae		
Seaside heliotrope	*Heliotropium curassavicum*	Native
Family Brassicaceae		
Black mustard	*Brassica nigra*	Nonnative
Family Chenopodiaceae		
Lamb's quarters	*Chenopodium album*	Nonnative
Russian thistle	*Salsola tragus*	Nonnative
Family Cucurbita		
Coyote melon	*Cucurbita palmata*	Native
Family Euphorbiaceae		
Spurge	*Euphorbia* sp.	Native
Family Geraneaceae		
Redstem filaree	*Erodium cicutarium*	Nonnative
Family Malvaceae		
Cheeseweed	*Malva parviflora*	Nonnative
Family Poaceae		
Crab grass	*Digitaria* sp.	Nonnative
Family Polygonaceae		
Prostrate knotweed	*Polygonum arenastrum*	Nonnative
Family Salicaceae		
Fremont cottonwood	*Populus fremontii*	Native
Willow tree	*Salix* sp.	Native
Family Simaroubaceae		
Tree of heaven	*Ailanthus altissima*	Nonnative
Family Solanaceae		
Jimson weed	*Datura stramonium*	Nonnative
Tree tobacco	*Nicotiana glauca*	Nonnative
Family Zygophyllaceae		
Puncturevine	*Tribulus terrestris*	Nonnative
Birds		
Family Accipitridae		
Swainson's hawk	*Buteo swainsoni*	CESA, MBTA, CFGC
Family Ardeidae		
Great blue heron	*Ardea herodias*	MBTA, CFGC
Family Cathartidae		
Turkey vulture	*Cathartes aura*	MBTA, CFGC
Family Columbidae		

Eurasian collared-dove	*Streptopelia decaocto*	Nonnative
Mourning dove	*Zenaida macroura*	MBTA, CFGC
Family Corvidae		
California scrub-jay	*Aphelocoma californica*	MBTA, CFGC
Yellow-billed magpie	*Pica nuttalli*	MBTA, CFGC
Family Falconidae		
American kestrel	*Falco sparverius*	MBTA, CFGC
Family Hirundinidae		
Barn swallow	*Hirundo rustica*	MBTA, CFGC
Cliff swallow	*Petrochelidon pyrrhonota*	MBTA, CFGC
Family Icteridae		
Bullock's oriole	*Icterus bullockii*	MBTA, CFGC
Family Mimidae		
Northern mockingbird	*Mimus polyglottos*	MBTA, CFGC
Family Passeridae		
House sparrow	*Passer domesticus*	Nonnative
Family Sturnidae		
European starling	*Sturnus vulgaris*	Nonnative
Family Turdidae		
Western bluebird	*Sialia mexicana*	MBTA, CFGC
Mammals		
Family Geomyidae		
Botta's pocket gopher	*Thomomys bottae*	Native

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), CESA = California Endangered Species Act (FGC § 2050 et seq. and CCR Title 14, Subsection 670.2, 670.51).

3.2.3 Nesting Birds

Migratory birds could nest on or near the Project site. Such species include, but are not limited to, mourning dove (*Zenaida macroura*), red-tailed hawk (*Buteo jamaicensis*), Swainson's hawk, and California scrub-jay (*Aphelocoma californica*).

3.2.4 Regulated Habitats

No regulated habitats were found within 50 feet of the Project site.

No Wild and Scenic River is near the Project site; the nearest stretch is associated with the Merced River, approximately 50 miles east-northeast of the Project site (USFWS 2020b).

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 in flood zone X, an area with a 0.2% annual chance of flood hazard (Federal Emergency Management Agency 2020). The nearest zone A flood hazard area is 2 miles west and south of the Project site; no impacts to this zone are anticipated.

3.3 Special-Status Species

3.3.1 Swainson's hawk (*Buteo swainsoni*) (ST)

Swainson's hawk is a state listed as threatened raptor in the family Accipitridae (CDFW 2020). Swainson's hawk is a gregarious, migratory, breeding resident of Central California where it uses open areas including grassland, sparse shrubland, pasture, open woodland, and annual agricultural fields such as grain and alfalfa to forage on small mammals, birds, and reptiles. After breeding, it eats mainly insects, especially grasshoppers (Bechard et al. 2010). Swainson's hawk builds a small to medium-sized nest in medium to large trees near foraging habitat along roadsides, in fields, and on the edge of some urban areas. The nesting season begins in March or April in Central California when this species returns to its breeding grounds from wintering areas in Mexico and Central and South America. Nest building commences within one to two weeks of arrival to the breeding area and lasts about one week (Bechard et al. 2010). One to four eggs are laid and incubated for about 35 days. Young typically fledge in about 38–46 days and tend to leave the nest territory within 10 days of fledging (Bechard et al. 2010). All Swainson's hawks depart for their non-breeding grounds between August and September.

Three CNDDB records for Swainson's hawk are known from within 5 miles of the Project site (Occurrence No. 479, 481, and 740) (CNDDB 2020). Medium and large trees on the Project site and within 0.5 miles could provide nesting habitat, alfalfa fields nearby provide foraging habitat, and an adult Swainson's hawk was observed in the survey areas during the reconnaissance survey. Therefore, this species could nest on or near the Project site.

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 such 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.

4.2 Significance Determinations

This Project, which will result in temporary impacts to urban and disturbed land, will not: (1) substantially reduce the habitat of a fish or wildlife species (criterion a) as no such habitat is present on the Project site; (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 state or federally protected 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 adversely affect, either directly or through habitat modifications, one special-status animal that occurs or may occur on or near the Project site. Construction activities such as excavating, trenching, or using other heavy equipment that disturbs or harms a special-status species or substantially modifies its habitat could 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 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 constructing a community sewer collection system to convey wastewater to a centralized location and a new wastewater treatment plant for treatment and disposal of the wastewater. Although most land near the Project site is developed and disturbed by residential and agricultural development, it still provides potential foraging and breeding habitat for the state listed as threatened Swainson's hawk. Nevertheless, Mitigation Measures BIO-1 and BIO-2 would reduce any contribution to cumulative impacts on biological resources to a less-than-significant level. The primary goal of this Project is to make the existing wastewater infrastructure more affordable, reliable, and environmentally sustainable. The wastewater system is not expected to be expanded to accommodate future expansion, and therefore, no additional unforeseen cumulative impacts are anticipated from this Project.

5.0 Literature Cited

Bechard, M. J., C. S. Houston, J. H. Saransola, and A. S. England. 2010. Swainson's Hawk (*Buteo swainsoni*), version 2.0. In The Birds of North America (A. F. Poole, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bna.265.

California Department of Fish and Wildlife (CDFW). 2020. Special Animals List. Periodic publication. 67 pp.

California Native Plant Society, Rare Plant Program (CNPS). 2020. Inventory of Rare and Endangered Plants (online edition, v8–03 0.39). California Native Plant Society, Sacramento, CA. http://www.rareplants.cnps.org. Accessed 10 August 2020.

California Natural Diversity Database (CNDDB). 2020. RareFind [Internet]. California Department of Fish and Wildlife [Commercial Version Dated August 10, 2020]. https://map.dfg.ca.gov/rarefind/view/RareFind.aspx.

Federal Emergency Management Agency. 2020. Map Number 06099C0545E, Stanislaus County, California. National Flood Insurance Program. Map revised September 26, 2008. https://msc.fema.gov/portal/. Accessed 10 August 2020.

Google. 2020. Google Earth Pro. Version 7.3.3.7786 (https://www.google.com/earth/download/gep/agree.html). Accessed August 2020.

Natural Resources Conservation Service (NRCS), U.S. Department of Agriculture. 2020. Web Soil Survey, National Cooperative Soil Survey: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. Accessed August 2020.

United States Army Corps of Engineers (USACE). 1987. Corps of Engineers Wetlands Delineation Manual. Wetland Research Program Technical Report Y-87–1.

_____. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). ERDC/EL TR–08–28. https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1046489.pdf. Accessed August 2020.

Unites States Fish and Wildlife Service (USFWS). 2018. Migratory Bird Permit Memorandum: Destruction and Relocation of Migratory Bird Nest Contents. FWS/DMBM/AMB/068029, 4 pages.

_____. 2020a. IPaC: Information for Planning and Conservation. https://ecos.fws.gov/ipac/. Accessed 10 August 2020.

_____. 2020b. National Wild and Scenic Rivers System. https://www.rivers.gov/california.php. Accessed 10 August 2020.

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: August 10, 2020
Consultation Code: 08ESMF00-2020-SLI-2591
Event Code: 08ESMF00-2020-E-07960
Project Name: Monterey Park Tract Sewer 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: 08ESMF00-2020-SLI-2591

Event Code: 08ESMF00-2020-E-07960

Project Name: Monterey Park Tract Sewer Project

Project Type: WASTEWATER FACILITY

Project Description: Sewer enhancement project.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/37.526498406034094N121.01144850254184W

Counties: Stanislaus, CA

Endangered Species Act Species

There is a total of 7 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 Fisheries[1], 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.

Reptiles

NAME	STATUS
Giant Garter Snake *Thamnophis gigas* 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 *Rana draytonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf	Threatened
California Tiger Salamander *Ambystoma californiense* 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 *Hypomesus transpacificus*	Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/321

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus*	Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/7850
Habitat assessment guidelines:
https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi*	Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/498

Vernal Pool Tadpole Shrimp *Lepidurus packardi*	Endangered

There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/2246

Critical habitats

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

Appendix B. CNDDB occurrence records.

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Ripon (3712162) OR Salida (3712161) OR Riverbank (3712068) OR Westley (3712152) OR Brush Lake (3712151) OR Ceres (3712058) OR Patterson (3712142) OR Crows Landing (3712141) OR Hatch (3712048))
 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)

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.
Agelaius tricolor 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	35 200	955 S:19	0	0	0	0	4	15	14	5	15	4	0
Ambystoma californiense California tiger salamander	G2G3 S2S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	40 65	1271 S:3	0	0	0	0	2	1	3	0	1	1	1
Anniella pulchra Northern California legless lizard	G3 S3	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	155 155	375 S:1	0	0	0	0	0	1	0	1	1	0	0
Ardea herodias great blue heron	G5 S4	None None	CDF_S-Sensitive IUCN_LC-Least Concern	40 40	156 S:1	0	1	0	0	0	0	1	0	1	0	0
Astragalus tener var. tener alkali milk-vetch	G2T1 S1	None None	Rare Plant Rank - 1B.2	55 55	65 S:1	0	0	0	0	1	0	1	0	0	0	1
Athene cunicularia 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	115 2,850	1989 S:4	0	0	1	1	1	1	3	1	3	1	0
Atriplex cordulata var. cordulata heartscale	G3T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	50 50	66 S:2	0	0	0	0	1	1	2	0	1	0	1
Atriplex minuscula lesser saltscale	G2 S2	None None	Rare Plant Rank - 1B.1	40 40	52 S:2	0	0	0	0	0	2	2	0	2	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.
Atriplex persistens vernal pool smallscale	G2 S2	None None	Rare Plant Rank - 1B.2	55 55	41 S:1	0	0	0	0	1	0	1	0	0	1	0
Atriplex subtilis subtle orache	G1 S1	None None	Rare Plant Rank - 1B.2		24 S:1	0	0	0	0	0	1	1	0	1	0	0
Blepharizonia plumosa big tarplant	G1G2 S1S2	None None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	245 310	53 S:5	0	1	1	1	0	2	1	4	5	0	0
Bombus caliginosus obscure bumble bee	G4? S1S2	None None	IUCN_VU-Vulnerable	70 70	181 S:1	0	0	0	0	0	1	1	0	1	0	0
Bombus crotchii Crotch bumble bee	G3G4 S1S2	None Candidate Endangered		80 100	276 S:2	0	0	0	0	0	2	2	0	2	0	0
Branchinecta conservatio Conservancy fairy shrimp	G2 S2	Endangered None	IUCN_EN-Endangered	35 35	47 S:1	0	0	0	0	0	1	1	0	1	0	0
Branchinecta lynchi vernal pool fairy shrimp	G3 S3	Threatened None	IUCN_VU-Vulnerable	35 125	791 S:4	0	1	1	0	0	2	3	1	4	0	0
Branta hutchinsii leucopareia cackling (=Aleutian Canada) goose	G5T3 S3	Delisted None	CDFW_WL-Watch List	25 70	19 S:9	1	0	0	0	0	8	9	0	9	0	0
Buteo swainsoni Swainson's hawk	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	23 300	2535 S:39	1	1	2	0	0	35	26	13	39	0	0
Caulanthus lemmonii Lemmon's jewelflower	G3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	250 250	91 S:1	0	0	0	0	0	1	1	0	1	0	0
Ceratochrysis menkei Menke's cuckoo wasp	G1 S1	None None		1,450 1,450	2 S:1	0	0	0	0	0	1	1	0	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.
Coccyzus americanus occidentalis western yellow-billed cuckoo	G5T2T3 S1	Threatened Endangered	BLM_S-Sensitive NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	25 25	165 S:1	0	0	0	0	1	0	1	0	0	1	0
Corynorhinus townsendii Townsend's big-eared bat	G3G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	70 70	635 S:1	0	1	0	0	0	0	0	1	1	0	0
Desmocerus californicus dimorphus valley elderberry longhorn beetle	G3T2 S2	Threatened None		30 90	271 S:6	1	1	1	0	0	3	5	1	6	0	0
Egretta thula snowy egret	G5 S4	None None	IUCN_LC-Least Concern	40 40	20 S:1	0	1	0	0	0	0	1	0	1	0	0
Emys marmorata western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	60 60	1396 S:1	0	1	0	0	0	0	1	0	1	0	0
Eremophila alpestris actia California horned lark	G5T4Q S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	250 250	94 S:1	0	0	0	0	0	1	1	0	1	0	0
Eryngium racemosum Delta button-celery	G1 S1	None Endangered	Rare Plant Rank - 1B.1	40 55	26 S:3	0	0	0	0	3	0	3	0	0	3	0
Eryngium spinosepalum spiny-sepaled button-celery	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	400 400	108 S:1	0	0	0	0	0	1	0	1	1	0	0
Eschscholzia rhombipetala diamond-petaled California poppy	G1 S1	None None	Rare Plant Rank - 1B.1 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley		12 S:1	0	0	0	0	0	1	1	0	1	0	0
Falco columbarius merlin	G5 S3S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	25 25	37 S:1	1	0	0	0	0	0	1	0	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.
Falco mexicanus prairie falcon	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	1,000 1,000	460 S:1	1	0	0	0	0	0	1	0	1	0	0
Lanius ludovicianus loggerhead shrike	G4 S4	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	180 180	110 S:1	1	0	0	0	0	0	0	1	1	0	0
Lasiurus cinereus hoary bat	G5 S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority		238 S:1	0	0	0	0	0	1	1	0	1	0	0
Lasthenia chrysantha alkali-sink goldfields	G2 S2	None None	Rare Plant Rank - 1B.1	35 55	55 S:4	0	0	0	0	1	3	4	0	3	1	0
Lepidurus packardi vernal pool tadpole shrimp	G4 S3S4	Endangered None	IUCN_EN-Endangered	40 125	324 S:3	0	0	1	0	0	2	2	1	3	0	0
Linderiella occidentalis California linderiella	G2G3 S2S3	None None	IUCN_NT-Near Threatened	35 40	508 S:2	0	1	0	0	0	1	0	2	2	0	0
Lytta moesta moestan blister beetle	G2 S2	None None		65 100	12 S:3	0	0	0	0	0	3	3	0	1	2	0
Masticophis flagellum ruddocki San Joaquin coachwhip	G5T2T3 S2?	None None	CDFW_SSC-Species of Special Concern	280 280	96 S:1	0	1	0	0	0	0	1	0	1	0	0
Melospiza melodia song sparrow ("Modesto" population)	G5 S3?	None None	CDFW_SSC-Species of Special Concern	30 30	92 S:1	0	0	0	0	0	1	1	0	1	0	0
Mylopharodon conocephalus hardhead	G3 S3	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	34 70	33 S:2	0	0	0	0	0	2	0	2	2	0	0
Navarretia nigelliformis ssp. radians shining navarretia	G4T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	400 400	102 S:1	0	0	0	0	0	1	0	1	1	0	0
Neotoma fuscipes riparia riparian (=San Joaquin Valley) woodrat	G5T1Q S1	Endangered None	CDFW_SSC-Species of Special Concern	25 50	3 S:3	0	0	0	0	0	3	2	1	3	0	0
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	G5T2Q S2	Threatened None	AFS_TH-Threatened		31 S:3	0	0	0	1	0	2	0	3	3	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.
Pogonichthys macrolepidotus Sacramento splittail	GNR S3	None None	AFS_VU-Vulnerable CDFW_SSC-Species of Special Concern IUCN_EN-Endangered	40 40	15 S:1	0	0	0	0	0	1	1	0	1	0	0
Puccinellia simplex California alkali grass	G3 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	25 60	80 S:2	0	0	0	0	1	1	2	0	1	0	1
Rana boylii foothill yellow-legged frog	G3 S3	None Endangered	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened USFS_S-Sensitive	559 559	2468 S:1	0	0	0	0	0	1	1	0	1	0	0
Spea hammondii western spadefoot	G3 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_NT-Near Threatened	39 1,100	1409 S:5	0	3	0	0	0	2	5	0	5	0	0
Sphenopholis obtusata prairie wedge grass	G5 S2	None None	Rare Plant Rank - 2B.2	50 50	19 S:1	0	0	0	0	0	1	1	0	1	0	0
Sylvilagus bachmani riparius riparian brush rabbit	G5T1 S1	Endangered Endangered		30 50	16 S:3	0	1	0	0	1	1	1	2	2	1	0
Taxidea taxus American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	400 400	594 S:1	0	0	1	0	0	0	1	0	1	0	0
Vireo bellii pusillus least Bell's vireo	G5T2 S2	Endangered Endangered	IUCN_NT-Near Threatened NABCI_YWL-Yellow Watch List	32 650	503 S:2	0	0	0	1	0	1	1	1	2	0	0
Vulpes macrotis mutica San Joaquin kit fox	G4T2 S2	Endangered Threatened		300 400	1018 S:4	0	0	0	1	0	3	3	1	4	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.

Plant List

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

Search Criteria

California Rare Plant Rank is one of [1B, 2B], Found in Quads 3712162, 3712161, 3712068, 3712152, 3712151, 3712058, 3712142 3712141 and 3712048;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	1B.2	S1	G2T1
Atriplex cordulata var. cordulata	heartscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S2	G3T2
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
Atriplex subtilis	subtle orache	Chenopodiaceae	annual herb	Jun,Aug,Sep(Oct)	1B.2	S1	G1
Blepharizonia plumosa	big tarplant	Asteraceae	annual herb	Jul-Oct	1B.1	S1S2	G1G2
Caulanthus lemmonii	Lemmon's jewelflower	Brassicaceae	annual herb	Feb-May	1B.2	S3	G3
Eryngium racemosum	Delta button-celery	Apiaceae	annual / perennial herb	Jun-Oct	1B.1	S1	G1
Eryngium spinosepalum	spiny-sepaled button-celery	Apiaceae	annual / perennial herb	Apr-Jun	1B.2	S2	G2
Eschscholzia rhombipetala	diamond-petaled California poppy	Papaveraceae	annual herb	Mar-Apr	1B.1	S1	G1
Navarretia nigelliformis ssp. radians	shining navarretia	Polemoniaceae	annual herb	(Mar)Apr-Jul	1B.2	S2	G4T2
Puccinellia simplex	California alkali grass	Poaceae	annual herb	Mar-May	1B.2	S2	G3
Sphenopholis obtusata	prairie wedge grass	Poaceae	perennial herb	Apr-Jul	2B.2	S2	G5

Suggested Citation

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 10 August 2020].

Appendix C

Cultural Resources Report

Phase I Survey,
Wastewater Treatment and Sewer Network Project,
Monterey Park Tract Community Services District,
Stanislaus County, California

Final Version

Prepared For:

Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 302,
Visalia, CA 93291
Telephone: (559) 840-4414

On behalf of:

Monterey Park Tract Community
Services District

Prepared by:

Deanna Keegan, M.A., RPA,
Theodore Bibby, Ph.D.,
Jennifer Mak, B.A.

ASM Affiliates
1919 21st St. #202
Sacramento, California 95811
Telephone: (916) 619-7119

Project Name: Monterey Park CSD Sewer Project
Project Number: 35480.00

USGS topographic quadrangle(s): Brush Lake, CA
Approximate acreage: 5

ASM Project Number 35480.00
September 2020

ASM affiliates
Archaeology • History • Ethnography • Architectural History

Statement of Confidentiality

This report identifies the location of cultural resources within the vicinity of the proposed Monterey Park Tract Community Services District Wastewater Treatment and Sewer Network Project, Stanislaus County, California. Information regarding cultural resources, including site locations, is protected by both federal and state laws. Federal regulations include, and are not limited to, Section 304 of the National Historic Preservation Act (54 United States Code [U.S.C.] 307103) and the Archaeological Resources Protection Act (16 U.S.C. Section 470h). State regulations include, and are not limited to, Government Code Section 6250 et seq. and Section 6254 et seq. Disclosure of site locations to individuals other than those who meet the U.S. Secretary of Interior's Professional Standards or the California State Personnel Board criterion for Associate State Archaeologist or State Historian II is a violation of the California Office of Historic Preservation records access policy.

Phase I Survey,
Wastewater Treatment and Sewer Network Project,
Monterey Park Tract Community Services District,

Stanislaus County, California

ASM Affiliates
1919 21st St. #202
Sacramento, CA 95811
(916) 619-7119
Project Number 33900.00

Table of Contents

List of Figures

List of Tables

Management Summary

A Phase I survey was conducted for approximately 5-acres located in the Monterey Park Tract Community Services District, Township 5 South, Range 9 East, Section 5, from the Mount Diablo Principal Meridian, approximately 8-mi east of Turlock, and 5.5 mi southwest of Ceres, Stanislaus County, California. This study was conducted by ASM Affiliates, Inc., with Deanna M. Keegan, M.A., RPA, serving as Principal Investigator, Ted Bibby Ph.D. as Project Manager, and Jennifer Mak as Associate Archaeologist. Background studies were competed in August 2020. Fieldwork was completed in September 2020. The study was undertaken to assist with compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and the California Environmental Quality Act (CEQA).

A records search was conducted at the Central California Information Center (CCIC), California State University, Stanislaus. Results determined that 2 previous archaeological surveys had been completed within 0.5-mile (mi.) of the Project Area. Of these, both previous archaeological surveys are within the Project Area. One cultural resource had been previously recorded within 0.5 mi. of the Project Area. CCIC determined that no previously recorded cultural resources are located within the Project Area.

An intensive-level pedestrian survey of the Project Area was conducted on September 1, 2020, by walking parallel transects spaced at 20-meter intervals. No cultural materials were identified during the pedestrian survey.

In summary, no historic properties as they pertain to archaeological resources were identified in the Area of Potential Effects (APE), as defined in the NHPA. ASM anticipates a *Finding of No Historic Properties Affected* for resources within the Project for purposes of Section 106. Furthermore, ASM does not anticipate the Project would result in any adverse change in the significance of a historical or unique archaeological resource, as defined by CEQA.

1.0 Introduction

ASM Affiliates, Inc. (ASM) was retained by Crawford & Bowen Planning, Inc. on behalf of Monterey Park Tract Community Services District (MPTCSD) to provide the methods and results of a cultural resource inventory for the Monterey Park Tract Community Services Study (Project). The Project is in Stanislaus County, California, approximately 8-mi east of Turlock, and 5.5 mi southwest of Ceres (Appendix A, Figure 1), Township 5 South, Range 9 East, Section 5, from the Mount Diablo Principal Meridian. The Project is located within the USGS Brush Lake, California 7.5-minute (Appendix A, Figure 2) approximately one mile west of the intersection of Crows Landing Road and West Monte Vista Avenue. All maps referenced throughout this report are included in Appendix A.

MPTCSD is a small rural community that at present only provides water service to the residences of the community. MPTCSD was enabled by the California Governing Code (CGC) 61000 and is the responsible agency with the authority to provide services to residents within the boundaries of the service district, and as such, MPTCSD is conducting the Septic to Sewer Feasibility Study. The following report fulfills the regulatory requirements for the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA) with the State Water Resources Control Board as the lead reviewing agency.

The current cultural resource study was intended to:

- Provide a background records search and literature review to determine if any known archaeological sites are present in the Project Area and/or whether the area had been previously and systematically studied by archaeologists;
- Conduct an on-foot, intensive inventory of the Project Area to identify and record previously undiscovered cultural resources and to examine known sites; and,
- To provide recommendation(s) for compliance with NHPA Section 106 and CEQA.

This study was conducted by ASM of Sacramento, California with documentary research conducted in August 2020 and an on-foot, intensive inventory on September 1, 2020. Deanna M. Keegan, MA, RPA, served as principal investigator and is the primary author of this report. Ms. Keegan meets the Secretary of the Interior's Professional Qualifications Standards (SOI PQS) for Archaeology and Principal Investigator. She was accompanied by ASM Assistant Archaeologist Jennifer Mak, B.A. during the fieldwork. ASM Director Ted Bibby, Ph.D. and Ms. Mak assisted Ms. Keegan with sections of this report.

This document constitutes a report on the Phase I survey and assists with fulfilling the requirements of Section 106 of NHPA and CEQA. Subsequent sections provide background to the investigation, the findings of the archival records search; a summary of the field surveying techniques employed, and the results of the fieldwork. We conclude with management recommendations, including a recommended determination of effect, for the Project Area.

1.1 Area of Potential Effects

According to Section 106, 36 CFR 800.16(d), the APE is defined as:

> … the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

A single APE was defined which includes all areas of Project related ground-surface disturbance, including staging and work areas (Appendix A, Figure 2). The APE is situated within the Monterey Park Tract Community and include a total of approximately 3,800 feet of gravity collection mains located below La Siesta, Monterey, Fox Avenues, and Durango Street. Gravity collection mains measure 6 in. in diameter and would be placed 3 ft below surface. A leach field and a centralized treatment system will be established on the east side of Monterey Avenue approximately 160 ft south of the intersection of Monterey Avenue and Durango Street. The proposed leach field would be located on a vacant gravel and dirt lot measuring approximately 193 ft long by 100 ft wide. Tanks located in the leach field would be placed at a maximum depth of 9 ft. The total horizonal APE is approximately 5-acres in size. Maximum depth of excavation is approximately 9 ft.

2.0 Regulatory Framework

The purpose of this archaeological investigation was to assist in the compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (Title 16 USC 470; 36 CFR Part 800). This report also serves to fulfill support and compliance for Section 404 of the National Environmental Policy Act permitting, in addition to the California Environmental Quality Act (CEQA).

2.1 Federal

NHPA Section 106 is applicable to federal undertakings, including projects financed or permitted by federal agencies, regardless of whether the activities occur on land that is managed by federal agencies, other governmental agencies, or private landowners. Its purpose is to determine whether adverse effects will occur to significant cultural resources, defined as "historical properties" that are listed in or determined eligible for listing in the National Register of Historic Places (NRHP). The criteria for NRHP eligibility are defined at 36 CFR § 60.4 and include:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that:

(a) Are associated with events that have made a significant contribution to the broad patterns of our history; or

(b) Are associated with the lives of persons significant in our past; or

Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

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

Ordinarily, cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered NRHP. However, such properties will qualify either if they are integral parts of districts that otherwise meet the criteria, or if they fall within the following categories:

(a) A religious property deriving primary significance from architectural or artistic distinction or historical importance; or

(b) A building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or

(c) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life.

(d) A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or

(e) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or

(f) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or

(g) A property achieving significance within the past 50 years if it is of exceptional importance. (http://www.achp.gov/nrcriteria.html)

2.1.1 Integrity

In order to be eligible for listing in the NRHP and CRHR, a property must retain sufficient integrity to convey its significance. The NRHP publication *How to Apply the National Register Criteria for Evaluation*, National Register Bulletin 15, establishes how to evaluate the integrity of a property: "Integrity is the ability of a property to convey its significance" (National Park Service, National Register of Historic Places 1998). The evaluation of integrity must be grounded in an understanding of a property's physical features, and how they relate to the concept of integrity. Determining which of these aspects are most important to a property requires knowing why, where, and when a property is significant. To retain historic integrity, a property must possess several, and usually most, aspects of integrity:

1. **Location** is the place where the historic property was constructed or the place where the historic event occurred.
2. **Design** is the combination of elements that create the form, plan, space, structure, and style of a property.
3. **Setting** is the physical environment of a historic property and refers to the character of the site and the relationship to surrounding features and open space. Setting often refers to the basic physical conditions under which a property was built and the functions it was intended to serve. These features can be either natural or manmade, including vegetation, paths, fences, and relationships between other features or open space.
4. **Materials** are the physical elements that were combined or deposited during a particular period or time, and in a particular pattern or configuration to form a historic property.
5. **Workmanship** is the physical evidence of crafts of a particular culture or people during any given period of history or prehistory and can be applied to the property as a whole, or to individual components.

6. **Feeling** is a property's expression of the aesthetic or historic sense of a particular period of time. It results from the presence of physical features that, when taken together, convey the property's historic character.
7. **Association** is the direct link between the important historic event or person and a historic property.

2.2 California Environmental Quality Act

Significant impacts under CEQA occur when "historically significant" or "unique" cultural resources are adversely impacted. Historically significant cultural resources are defined by eligibility for or by listing in the California Register of Historical Resources (CRHR). The CRHR program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under CEQA. The criteria established for eligibility for the CRHR are directly comparable to the national criteria established for the NRHP.

In order to be eligible for listing in the CRHR, an archaeological resource or building must satisfy at least one of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
2. It is associated with the lives of persons important to local, California, or national history.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values.
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation [Public Resources Code [PRC], §5024.1(c)].

Historical resources eligible for listing in the CRHR must meet one of the criteria of significance described above and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. For the purposes of eligibility for CRHR, integrity is defined as "the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance" (Office of Historic Preservation 2001). This general definition is generally strengthened by the more specific definition offered by the NRHP—the criteria and guidelines on which the CRHR criteria and guidelines are based upon. Under CEQA, significant impacts to cultural resources are those that alter or destroy prehistoric or historical archaeological sites, features, and artifacts, and historical properties (e.g., buildings) that are themselves determined to be significant or unique.

Unique resources under CEQA, in slight contrast, are those that represent an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

(1) It contains information needed to answer important scientific research questions, and there is a demonstrable public interest in that information.

(2) It has a special and particular quality such as being the oldest of its type or the best available example of its type.

(3) It is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC § 21083.2 (g)).

3.0 Background Context

A general environmental and cultural background for the region surrounding the current Project Area is provided below to generate a set of expectations regarding the nature of cultural resources that might be encountered within the current Project Area, and to establish a context within which to assess the significance of any such resources.

3.1 Environmental Background

The Project APE is located within the northern San Joaquin Valley of California's greater Central Valley. The geologic deposits within the APE and vicinity are exclusively designated as Quaternary Alluvium Terrace. These deposits extend over 50 miles between California's Coast Range and the Sierra Nevada Range and are composed of unconsolidated and semi-consolidated alluvium, lake, playa, and terrace deposits. The deposits are mostly nonmarine, but include marine deposits near the coast (Jennings et al. 2010). Appendix A, Figure 3 depicts the geology of the Project APE and vicinity.

Four soil types are further differentiated bisecting the Project APE: (1) Delhi loamy sand, 0 to 3 percent slopes; (2) Hilmar loamy sand, 0 to 1 percent; (3) Dello loamy sand, 0 to 1 percent slopes; and (4) Hilmar loamy sand, slightly saline-alkali, 0 to 1 percent slopes (USDA Soil Survey Staff 2020). Appendix A, Figure 4 depicts the boundaries of each soil series within the Project APE.

The Delhi loamy sand, soil series (DeA) underlays the majority of the APE, including the proposed site of the water treatment plant. These soils are eolian deposits derived from granitic based sandy alluvium. (USDA Soil Survey Staff 2020).

3.2 Cultural Background

3.2.1 Prehistoric

The following section provides a regional chronology for the San Joaquin Valley by providing a categorization of prehistoric time periods in terms of cultural stages describing archaeological resources and cultural patterns for each time frame. A generalized chronology for the San Joaquin Valley is provided by Reclamation (US Department of Interior 2008:56-58) and is summarized below.

The San Joaquin Valley has a long and complex cultural history with distinct regional patterns that extend back in time for more than 13,000 years. The physical landscape of the region was characterized by grasslands and riparian forests with a large, diverse mammalian population. The inhabitants of the Central Valley were likely large game hunters. Evidence of early use of the San Joaquin Valley is represented by the discovery of distinctive, fluted and stemmed points (e.g. Clovis points), found margins of extinct lakes in the valley, including Tulare Lake, approximately 50-mi. southeast of the Project. The hunters who used these points existed only between 11,200 and 10,900 B.P. The complex of artifacts characteristic of this period is often called the Clovis complex.

Most researchers believe that the Clovis Complex was followed by another widespread cultural complex, often termed Early Archaic. The indicative artifacts of this period, which has also been called by its geological name, the Early Holocene period, consist of stemmed spear points rather than the fluted points that typify the Clovis Complex. This poorly defined early cultural tradition is best known from a small number of sites in the San Joaquin Valley and the Sierra Nevada foothills and is thought to date from 8000 to 10,000 B.P.

The increase in food-grinding implements found in archaeological sites indicates that approximately 8,000 years ago, many California cultures shifted the focus of their subsistence strategies from hunting to seed gathering. Recent studies suggest that this cultural pattern is more widespread than originally assumed and is found throughout the Project Area. Radiocarbon dates associated with this period vary between 8000 and 2000 B.P., and cluster in the 6000 to 4000 B.P. range.

Cultural patterns as reflected in the archaeological record have become better defined for archaeological cultures dating to the last 3,000 years. The archaeological record indicates increasing complexity as specialized adaptations to locally available resources develop, and populations expand. Many sites dated to this period contain mortars and pestles or are associated with bedrock mortars, suggesting that the occupants used acorns intensively.

The range of resources used for subsistence increased, and exchange systems expanded significantly, from the previous period. Along the coast and in the Central Valley, archaeological evidence of social stratification and craft specialization is indicated by well-made artifacts, such as charm stones and beads, which were often found with burials (US Department of Interior 2008). Portions of the Project Area that are near the San Joaquin River have a high probability of containing buried sites due to the attractiveness of these environments for prehistoric settlement.

3.2.2 Ethnography

The San Joaquin Valley was occupied by the Penutian-speaking Yokuts. The word *Yokuts* is an English adaptation for the indigenous word for "people." Yokuts tribal groups occupied the San Joaquin Valley subdivided by the northern and southern valleys, and the nearby Sierra Nevada foothills. Ethnographic information about the Yokuts was collected primarily by Driver (1937), Gayton (1930, 1948), Heizer and Elsasser (1980), Latta (1949), and Powers (1971, 1976).

For a variety of historical reasons, this information emphasizes the central Yokuts tribes occupying the valley and, especially, the foothills of the Sierra. The northernmost tribes had suffered from the influx of Euro-Americans during the Gold Rush and were essentially extirpated by the time ethnographic study began at about the start of the twentieth century. The southernmost tribes, in contrast, were partly removed by the Spanish to the missions and subsequently were absorbed into multi-tribal communities on the Sebastian Indian Reservation (on the Tejon Ranch), and eventually the Tule River Reservation and Santa Rosa Rancheria, situated to the north. The general details of indigenous lifeways were similar across the broad expanse of Yokuts territory, particularly in terms of the patterns of life for either the valley versus the foothill tribes, where environment influenced subsistence and adaptation, and in terms of religion and belief, which were everywhere similar.

Most Yokuts groups, regardless of specific tribal affiliation, were organized as a recognized and distinct tribelet, and this circumstance almost certainly pertained for the tribal groups noted above. Tribelets were land-owning groups linked by their shared territory and descent from a common ancestor. The population of most tribelets estimated between 150 to 500 people (Kroeber 1925). Although population estimates vary, and population size was greatly affected by Euro-American introduced diseases and social disruption more generally, the Yokuts as a whole were one the largest and most successful groups in Native California. (Cook 1978), for example, estimates that the Yokuts region contained fully 27 percent of the aboriginal population in the state at the time of contact; some other estimates are even higher.

The tribelet was headed by a chief who was assisted by a variety of assistants, perhaps the most important of whom was the winatum, a herald or messenger and assistant chief. A shaman also existed who served as religious officer. The shaman did not have any direct political authority in a strict sense although, as Gayton (1930) has illustrated, they maintained substantial influence within their tribelet.

Shamanism is a religious system common to most Native American tribes. It involves a direct and personal relationship between each individual and the supernatural world, with this relationship enacted by entering a trance or hallucinatory state (usually based on the ingestion of psychotropic plants, such as jimsonweed or, more typically, native tobacco). Shamans, per se, were considered individuals with an unusual degree of supernatural power, and they served as healers or curers, diviners, and controllers of natural phenomena (such as rain or thunder). Shamans are also known to have produced the rock art of this region, which depicted the visions they experienced in their vision quests, believed to represent their spirit helpers and events in the supernatural realm (Whitley 1992, 2000).

The centrality of shamanism to the religious and spiritual life of the Yokuts was demonstrated by the role of shamans in the yearly ceremonial round, which was always the same. It started in the spring with the jimsonweed ceremony, then the rattlesnake dance and (where appropriate) finally, the first salmon ceremony. Fall rituals began in the late summer after return from seed camps with the mourning ceremony, followed by first seed and acorn rites and then the bear dance (Gayton 1930). In each case, shamans served as ceremonial officials responsible for specific dances which, at the most fundamental level, involved a display of their supernatural powers (Kroeber 1925).

Subsistence practices varied from tribelet to tribelet as a result of specific environments of residence. Throughout Native California and the Yokuts territory in general, the acorn was a primary dietary component, as were a variety of gathered seeds. The valley tribes augmented this resource with lacustrine and riverine foods, especially fish and wildfowl. Stone tools and basketry were widely used as well as bows and arrows, nets, harpoons, and mortars and pestles (Wallace 1978).

Ethnographic Habitation Areas

Information regarding the location of tribelet habitation areas vary between ethnographic sources. According to (Cook 1955:77) the Project is located on one Yokuts habitation area: *Taulamnes.* The *Taulamnes* occupied an area east of the San Joaquin River, to the north approximately midway between Stanislaus and Tuolumne Rivers, north of the Merced River.

Villages were located at the ford of the San Joaquin River below the mouth of Tuolumne River, approximately 17 kilometers northwest of the Project Area.

3.2.3 Historic Context

Spanish explorers first visited the San Joaquin Valley in 1772, but its lengthy distance from the missions and presidios along the Pacific Coast delayed permanent settlement for many years, including during the Mexican period of control over the Californian region. In the 1840s, Mexican rancho owners along the Pacific Coast allowed their cattle to wander and graze in the San Joaquin Valley (JRP Historical Consulting 2009). The Mexican government granted the first ranchos in the southern part of the San Joaquin Valley in the early 1840s, but these did not result in permanent settlement. It was not until the annexation of California in 1848 that the exploitation of the southern San Joaquin Valley began (Pacific Legacy 2006). In the 1840s, Mexican rancho owners along the Pacific Coast allowed their cattle to wander and graze in the San Joaquin Valley (JRP Historical Consulting 2009). But the Mexican government did not grant ranchos in the San Joaquin Valley until the early 1840s, and even then, these did not result in significant permanent settlement.

The discovery of gold in northern California in 1848 resulted in a dramatic increase of population, consisting in good part of fortune seekers and gold miners, who began to scour other parts of the state. After 1851, when gold was discovered in the Sierra Nevada Mountains in eastern Kern County, the population of the area grew rapidly. Some new immigrants began ranching in the San Joaquin Valley to supply the miners and mining towns. Ranchers grazed cattle and sheep, and farmers dry-farmed or used limited irrigation to grow grain crops, leading to the creation of small agricultural communities throughout the valley (JRP Historical Consulting 2009).

After the American annexation of California, the southern San Joaquin Valley became significant as a center of food production for this new influx of people in California. The expansive unfenced and principally public foothill spaces were well suited for grazing both sheep and cattle (Boyd et al. 1997). As the Sierra Nevada gold rush presented extensive financial opportunities, ranchers introduced new breeds of livestock, consisting of cattle, sheep and pig (Boyd et al. 1997).

With the increase of ranching in the San Joaquin came the dramatic change in the landscape, as non-native grasses more beneficial for grazing and pasture replaced native flora (Preston 1981). After the passing of the Arkansas Act in 1850, efforts were made to reclaim small tracts of land in order to create more usable spaces for ranching. Eventually, as farming supplanted ranching as a more profitable enterprise, large tracts of land began to be reclaimed for agricultural use, aided in part by the extension of the railroad in the 1870s (Pacific Legacy 2006).

Following the passage of state-wide 'No-Fence' laws in 1874, ranching practices began to decline, while farming expanded in the San Joaquin Valley in both large land holdings and smaller, subdivided properties. As the farming population grew, so did the demand for irrigation. Settlers began reclamation of swampland in 1866.

The San Joaquin Valley was dominated by agricultural pursuits until the oil boom of the early 1900s, which saw a shift in the region, as some reclaimed lands previously used for farming were leased to oil companies. Nonetheless, the shift of the San Joaquin Valley towards oil production did not halt the continued growth of agriculture (Pacific Legacy 2006). The Great Depression of the 1930s brought with it the arrival of great number of migrants from the drought-affected Dust Bowl region, looking for agricultural labor. These migrants established temporary camps in the valley, staying on long past the end of the drought and the Great Depression, eventually settling in towns where their descendants live today (Boyd et al. 1997).

Monterey Park Tract

Monterey Park Tract is a rural residential subdivision in an unincorporated area of Stanislaus County. The subdivision covers an area of 33 acres and is 4.5 miles southwest of the city of Ceres. Designated as primarily agricultural land, the community is surrounded by cornfields and dairies. According to the 2020 US census, there is a total of 63 households in the area and is considered a severely disadvantaged community. Historically, the subdivision was fully developed by 1952 and consisted principally of African Americans (Davis-King 2014).

Monterey Park Tract has been the center of ongoing efforts to improve water quality to rural communities in California. Due to the surrounding agricultural activities, levels of nitrates and arsenic in the water have been found to exceed federally accepted limits for safe drinking water. In 2004, a project was proposed to repair and replace the water wells and treatment systems within the community (Varner 2004). In 2011, Monterey Park Tract received a grant from the California Department of Public Health and Stanislaus County to conduct a feasibility study to determine alternatives for providing clean drinking water to its residents. The study recommended constructing a water line from the city of Ceres to Monterey Park Tract. The water line was approved by Stanislaus County and the city of Ceres in 2015 and construction began in January 2016 (Benziger 2015, 2016).

By January 2019, the community was receiving water from the city of Ceres however, residents of both Ceres and Monterey Park Tract were notified of the presence of the cancer-causing chemical 1,2,3 TCP. This prompted a visit to the community by Governor Newsom on January 11, 2019 in which he commented that the residents of Monterey Park Tract were still not confident enough in the quality of the water to drink it. Governor Newsom stated that increasing accessibility to clean drinking water would be a priority of his administration (Tracy 2019).

4.0 Background Research

4.1 CHRIS Records Search

A California Historical Resources Information System (CHRIS) records search was conducted by ASM Senior Archaeologist Deanna Keegan, M.A., RPA. Ms. Keegan requested a records search within a 0.5-mi. radius of the APE from the Central California Information Center (CCIC) on August 10, 2020, for the Project. CCIC provided records search results on August 12, 2020 (File No. 11471N). CHRIS records search requests and results are provided in Confidential Appendix B. Summarized records search results provided below are sourced from the CCIC accompanying attachments.

ASM conducted additional archival research including the review of historic maps and photographs, land records, and queries into the Office of Historic Preservation (OHP) Historic Property Directory (HPD) and NRHP. Historic topographic maps reviewed include Brush Lake, California, from 1953, 1969, 2012, 2015, and 2018; Modesto West, California, in 1941; San Jose, California, from 1947, 1956, 1962, 1966; Stockton, California in 1989; and Westport, California in 1915. The APE and surrounding vicinity appear to be open land with seasonal floodplain wetland habitat until c. 1955. There are no historic properties listed in the NRHP, OHP, or the HPD within the APE.

4.1.1 Previous Cultural Resource Studies

Results provided by the SSJVIC note a total of 2 previous projects that have been completed within the 0.5-mi. records search radius. Of these projects, 2 have been completed within portions of the APE. Table 1 summarizes previous cultural resources studies that have been conducted within the APE and/or within a 0.5-mi. search radius.

Table 1. Previous Cultural Resource Inventory Projects Conducted within 0.5 Mi. of the APE

EIC Study No.	Title	Author (Date)	Approximation to APE
ST-05471	A Cultural Resource Study of the Monterey Park Tract Community Services District, Stanislaus County, California.	Varner (2004)	Within APE
ST-07943	Historical Resources Survey Report for the Proposed Monterey Park Tract Water Improvement Project, Stanislaus County, California	Davis-King (2014)	Within APE

4.1.2 Previously Recorded Cultural Resources

The CCIC records search identified 1 previously recorded cultural resource within a 0.5-mi radius of the APE. No previously recorded cultural resources were identified within the APE. Table 2 summarizes previous cultural resources that have been recorded within the 0.5-mi. search radius. A map depicting previously recorded cultural resources within 0.5-mi of the APE is included in Appendix A, Confidential Figure 5.

Table 2. Previously Recorded Cultural Resources within 0.5 Mi. of the APE

Primary (P-)	Trinomial (CA-)	Age	Description	Recorder(s)	Approximation to APE
50-000072	-	H	TID Laterals No. 3, Upper Lateral 3, & Lower Lateral No. 3	Lawson (2009)	Within 0.5 Mile Search Radius

Age: H- Historic

4.2 Native American Correspondence

A Sacred Lands File (SLF) request was submitted to the Native American Heritage Commission (NAHC) on August 14, 2020. The NAHC responded on August 20, 2020, with a negative result to the SLF search. Additionally, the NAHC provided a list of Native American tribes who have knowledge of the Project APE. ASM wrote to contacts provided by NAHC for additional information pertaining to the APE on August 20, 2020. On September 9, 2020 follow-up emails and phone calls were made to the NAHC provided contacts. At the time of the report publication no responses have been made. Appendix C provides requests to the NAHC, their results, and information request letters to Native American tribes.

4.3 Buried Archaeological Site Sensitivity

For the purposes of this report, "sensitivity" is defined as the likelihood for the discovery of buried archaeological deposits in an area. Meyer et al. (2010) assessed archaeological sensitivity of buried deposits based on landform age in relation to human occupation, topographic relief, and proximity to water. If a landform predates human occupation of a region the archaeological sensitivity for that region would be low. Additionally, if a landform was altered during the historic and/or modern eras (e.g. development, erosion, cut/fill) the archaeological sensitivity for that region would be low. However, if a landform postdates human occupation of a region the archaeological sensitivity for that region would be higher if the landscape would support habitation (e.g. topographic relief and proximity to water).

The Project APE is underlain by Quaternary alluvium with Delhi, Dello, and Hilmar series soils (Appendix A, Figure 4). Regional quaternary deposits mapped proximal to the Project APE are Early Holocene to Late Pleistocene in age (Marchand 1980; Sowers et al. 1993). The nearest source of water is the San Joaquin River located approximately 4.8 mi. west of the APE. As such, based on the landform age, topographic relief, and nearest source to water, the Project APE has a moderate to high sensitivity for buried archaeological deposits (Meyer et al. 2010).

5.0 Fieldwork Methods and Results

5.1 Field

An intensive pedestrian survey of the APE was conducted on September 1, 2020 by ASM Senior Archaeologist Deanna Keegan, M.A. RPA, and ASM Assistant Archaeologist Jennifer Mak (Figure 6). Ms. Keegan served as Project Field Director. Field methods were designed to meet all professional requirements, including the *Secretary of the Interior's Standards and Guidelines*. The field methods employed included intensive, on-foot examination of the ground surface for evidence of archaeological sites, in the form of artifacts, surface features (such as house pits), and archaeological indicators (e.g., anthropogenic soils or burnt animal bone); the identification and location of any new or previously discovered sites; tabulation and recorded of surface diagnostic artifacts; site photography and sketch mapping; preliminary evaluation of site integrity; and site recording or, in the case of previously recorded sites, site record updating. The California OHP Instructions for Recording Historic Resources and Department of Parks and Recreation (DPR) 523 forms were followed and employed for site recording. GIS data was collected with an iPad using ESRI Collector for ArcGIS software synced with a Trimble R1 unit producing sub-meter accuracy. The APE was examined by walking parallel 20-m parallel transects. Both sides of Monterey Avenue, La Siesta Avenue, Foy Avenue, and Durango Street were inspected for cultural resources. In total, 0.75 linear miles of roadway were inspected. The proposed location of the wastewater treatment plant were also examined for cultural materials (Figure 6).

5.2 Archaeological Survey Results

No cultural resources were observed in the survey area. The proposed location for the wastewater treatment plant was inspected first. The proposed wastewater treatment plant, located in the northeast portion of the APE east of Monterey Avenue, is a vacant graveled lot surrounded by a chain- linked fence on the eastern, northern, and western ends of the lot, and a wooden fence at the southern end. Ground visibility for the lot is 95 percent with the entire area leveled and covered by road gravel. Modern debris such as plastic soda bottles and dead vegetation were scattered throughout the entire area. The vacant dirt lot directly abutting the northern end of the fenced location was also examined. Ground visibility in the vacant lot was at 70 percent with vegetation obstructing views. Vegetation consisted of non-native grasses and weeds, jimsonweed and prickly pear cactus. Inspection of the ground revealed highly disturbed alluvial soils and modern debris. Private residences were directly adjacent to the vacant lot on the northern and eastern sides. The pavement and adjacent graded dirt shoulders of Monterey Avenue, La Siesta Avenue, Foy Avenue, and Durango Street were inspected. Inspection revealed that these areas have been periodically modified by road building and agricultural activities. Only modern road litter was found along the roads. Field conditions for the survey were good and survey confidence for the APE is high. Project Area photographs showing roadways and vacant lot for excavation are presented in Appendix A, Figures 8-12.

6.0 Conclusions and Recommendations

Documentary research conducted for the Project did not identify any previously recorded cultural resources in the APE. No cultural materials were identified during the pedestrian survey. As the Project involves ground-disturbing activities and is located in an area with a moderate to high sensitivity for buried archaeological deposits, there is a possibility for unrecorded cultural resources (including human remains) to be encountered during Project implementation activities. If cultural resources are identified during Project implementation activities ASM recommends construction activities halt within 100 feet until a SOI PQS qualified archaeologist can assess. If the Project could damage a historic property construction should cease until a mitigation plan is implemented. If human remains are discovered by Project personnel, all construction activities will halt within 100 feet of the discovery. Pursuant to PRC § 5097.98 and HSC § 7050.5, on-site personnel are to contact USACE, who shall contact the Stanislaus County Coroner. If the Stanislaus County Coroner determines the remains are Native American, the NAHC will be contacted to identify most likely descendant.

In summary, no historic properties/historical resources were identified in the APE, as defined in the NHPA and CEQA. ASM anticipates a *Finding of No Historic Properties Affected* for archaeological resources within the Project for purposes of Section 106. Furthermore, ASM does not anticipate the Project would result in any adverse change in the significance of a historical resource, as defined by CEQA.

References

Benziger, Jeff.

2015 Monterey Park Tract water deal OKd. *Ceres Courier* January 28, 2015.

2016 Desperate neighborhood getting water. *Ceres Courier* January 27, 2016.

Boyd, Robert, William H. Durham, and Peter J. Richerson

1997 Are Cultural Phylogenies Possible? In *Human by Nature: Between Biology and the Social Sciences*, pp. 355-384. Lawrence Erlbaum Associates, Mahwah.

Cook, S. F.

1955 *The Aboriginal Population of the San Joaquin Valley, California*. R. L. Olson, R. F. Heizer, T. D. McCown, and J. H Rowe. Anthropological Records. 2 vols. University of California Press, Berkeley.

1978 Historical Demography. In *Handbook of North American Indians*, Vol 8, edited by R. F. Heizer, pp. 91-98. Smithsonian Institute, Washington, D. C.

Davis-King, Shelly

2014 *Historical Resources Survey Report For the Proposed Monterey Tract Water Improvement Project, Stanislaus County, California*, Submitted to J.B. Anderson Land Use Planning Ripon, California.

Driver, H. E.

1937 Cultural Element Distributions: VI, Southern Sierra Nevada. *University of California Anthropological Records* 1(2):53-154.

Gayton, A. H.

1930 Yokuts-Mono Chiefs and Shamans. *University of California Publications in American Archaeology and Ethnology* 24:361-420.

1948 *Yokuts and Western Mono Ethnography*. University of California Anthropological Records, Berkeley, California.

Heizer, R. F. , and A. B. Elsasser

1980 *The Natural World of the California Indians*. University of California Press, Berkeley, California.

Jennings, C. W., Carlos Gutierrez, William Bryant, George Saucedo, and Chris Wills

2010 *Geologic Map of California*. Department of Conservation, California Geological Survey. Sacramento, California.

JRP Historical Consulting, LLC.

2009 *Sacramento Municipal Utility District. Solano Wind Project, Solano County, California, Historic Resources Inventory and Evaluation Report Update*.

Kroeber, Alfred L
1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin No. 78: 1-995. Washington, D.C.

Latta, F. F.
1949 *Handbook of Yokuts Indians*. Bear State Books, Oildale, California.

Marchand, Denis E.
1980 *Preliminary geologic maps showing Quaternary deposits of the Ceres, Denair, and Montpelier 7.5-minute quadrangles, Stanislaus and Merced counties, California*. Open-File Report.

Meyer, Jack, Craig D. Young, and Jeffrey S. Rosenthal
2010 *Volume I: A Geoarchaeological Overview and Assessment of Caltrans Districts 6 and 9 - Cultural Resources Inventory of Caltrans District 6/9 Rural Conventional Highways*. Copies available from Inc. Far Western Anthropological Research Group.

National Park Service, National Register of Historic Places
1998 *How to Apply the National Register Criteria for Evaluation*. NRHP Bulletin No. 15. Washington, D.C.

Office of Historic Preservation
2001 *Instructions on Recording Historic Resources*.

Pacific Legacy
2006 Southern San Joaquin Valley Oil Fields Comprehensive Study.

Powers, Stephen
1971 The Yokuts Dance for the Dead. In *The California Indians: A Source Book*, edited by R. F. Heizer, and M. A. Whipple. 2nd ed.
1976 *Tribes of California*. University of California Press, Berkeley, California.

Preston, William L.
1981 *Vanishing Landscapes: Land and Life in the Tulare Lake Basin*. University of California Press, Berkeley.

Sowers, Janet M., Jay S. Noller, and W. R. Lettis
1993 *Preliminary maps showing Quaternary geology of the Patterson and Crows Landing 7.5-minute quadrangles, California*. Open-File Report.

Tracy, Erin.
2019 In 'surprise' trip to Stanislaus County, Gavin Newsom discusses fixes for bad water. *The Modesto Bee* January 11, 2019.

USDA Soil Survey Staff
2020 *Web Soil Survey*. Natural Resources Conservation Service, United States Department of Agriculture.

US Department of Interior, Bureau of Reclamation
2008 *Conveyance of Refuge Water Supply, South San Joaquin Valley Study Area, Mendota Wildlife Area. Final Environmental Assessment – Initial Study*. Submitted to US Department of Interior, Bureau of Reclamation, Central California Irrigation District, Los Banos, California.

Varner, Dudley M.
2004 *A Cultural Resource Study of the Monterey Park Tract Community Services District, Stanislaus County, California*. Submitted to Submitted to Self-Help Enterprises, Visalia, California, [Report on file at CCIC #5471].

Wallace, William
1978 Northern Valley Yokuts. In *Handbook of North American Indians*, Vol 8, edited by R. F. Heizer. Smithsonian Institution, Washington, D. C.

Whitley, David S.
1992 Shamanism and Rock Art in Far Western North America. *Cambridge Archaeological Journal* 2(1):89-113.
2000 *The Art of the Shaman: Rock Art of California*. University of Utah Press, Salt Lake City, Utah.

Appendices

Appendix A

Figures

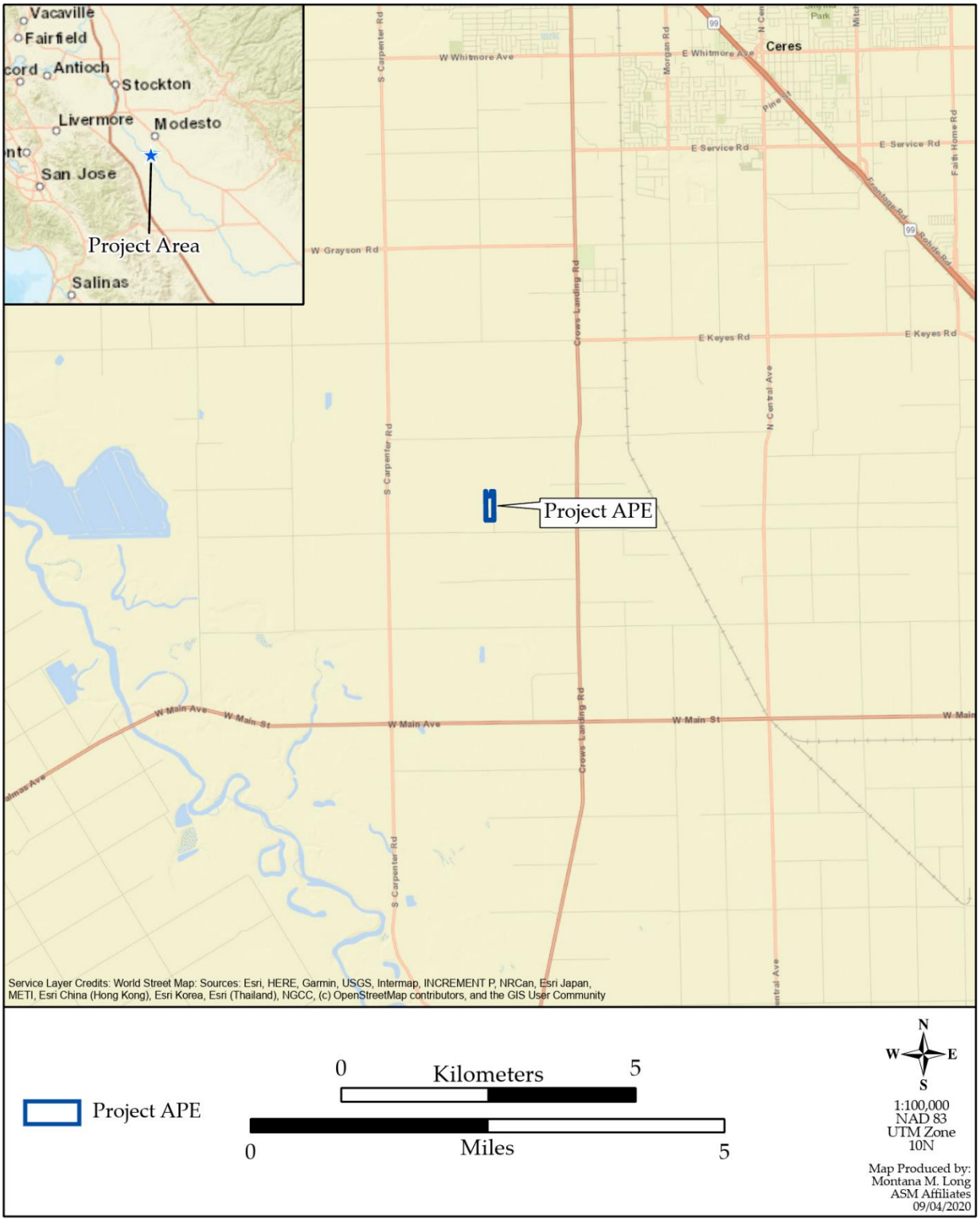


Figure 1. Project vicinity map.

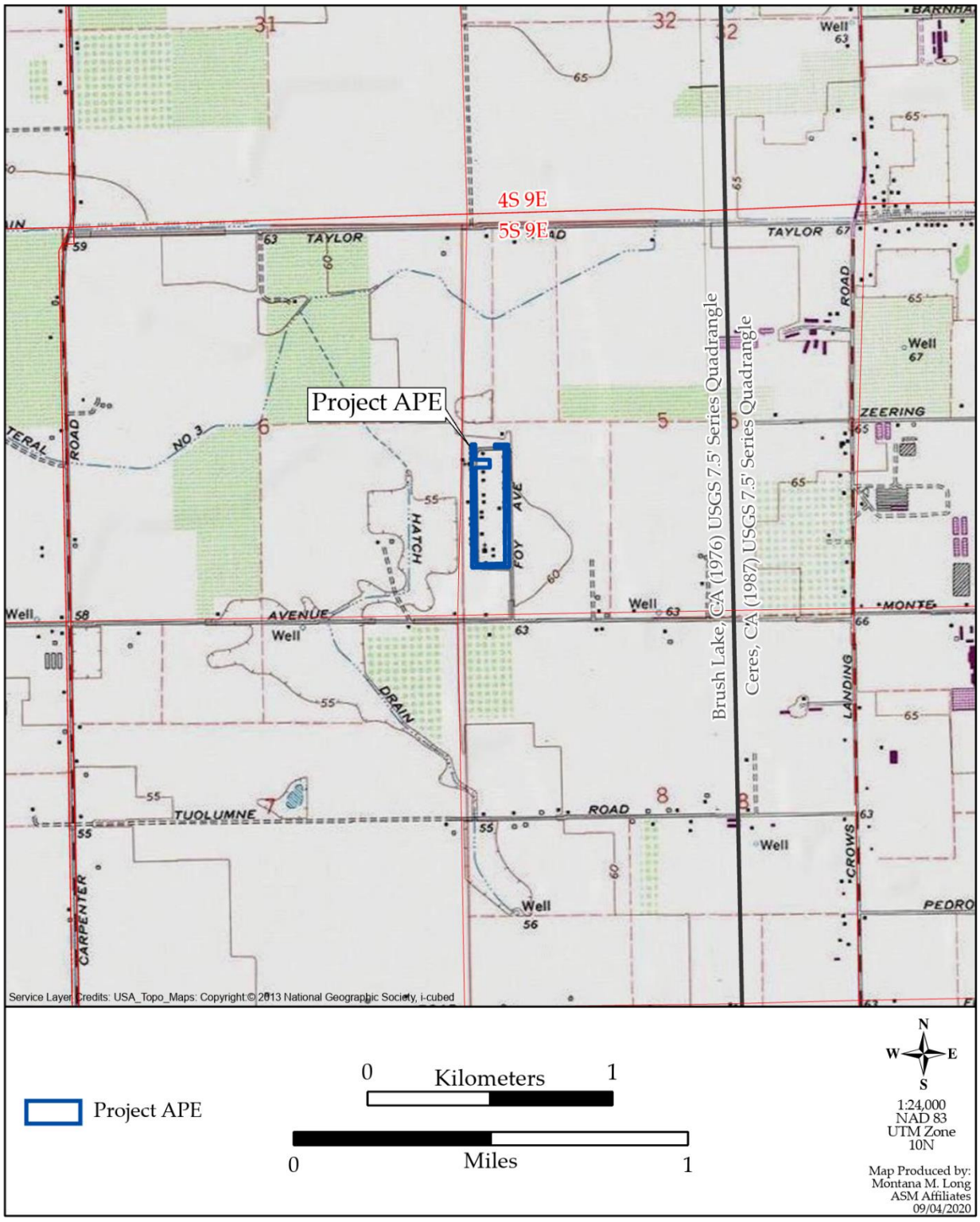


Figure 2. Project location and Area of Potential Effects map.

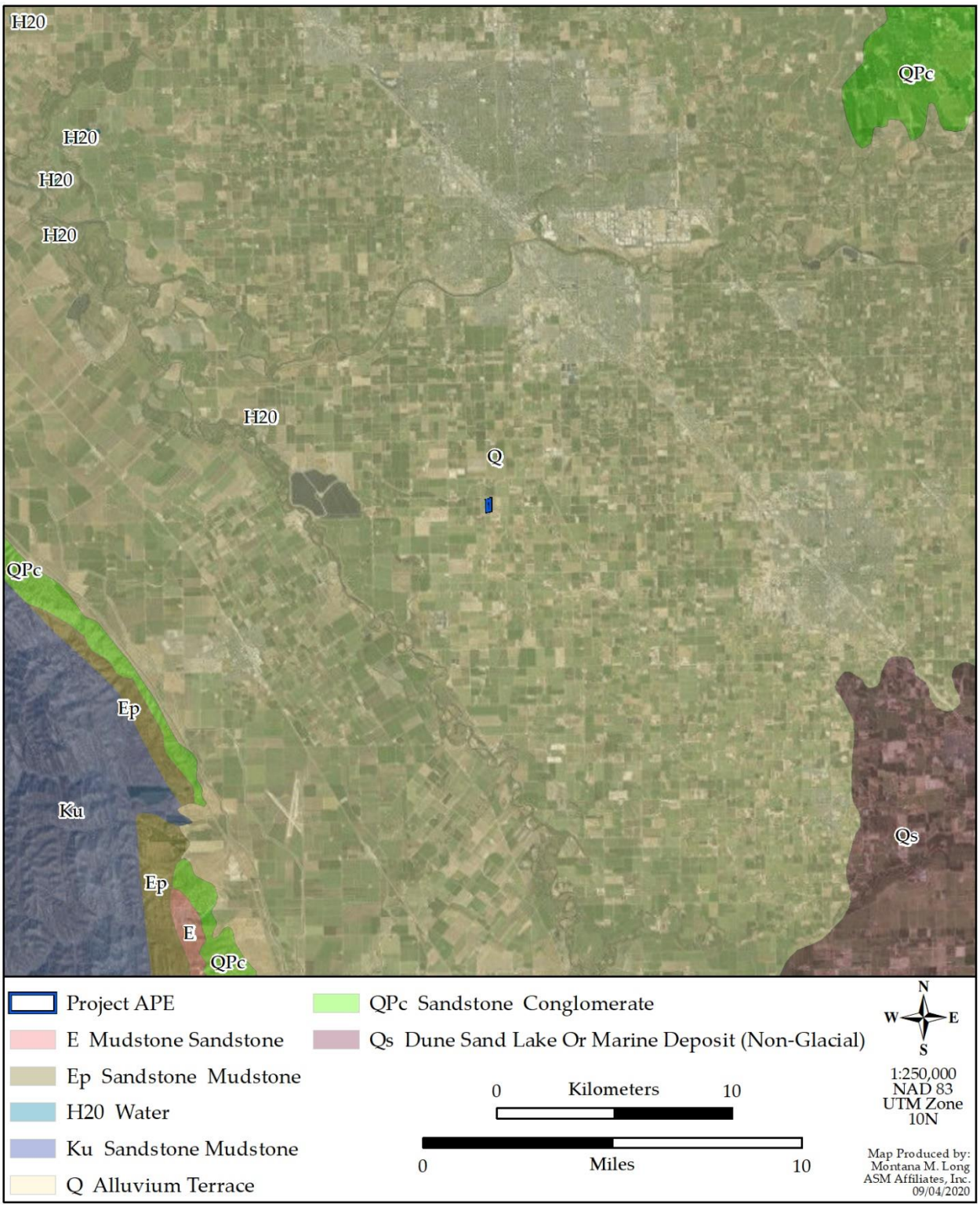


Figure 3. Geology of the Project area and vicinity.

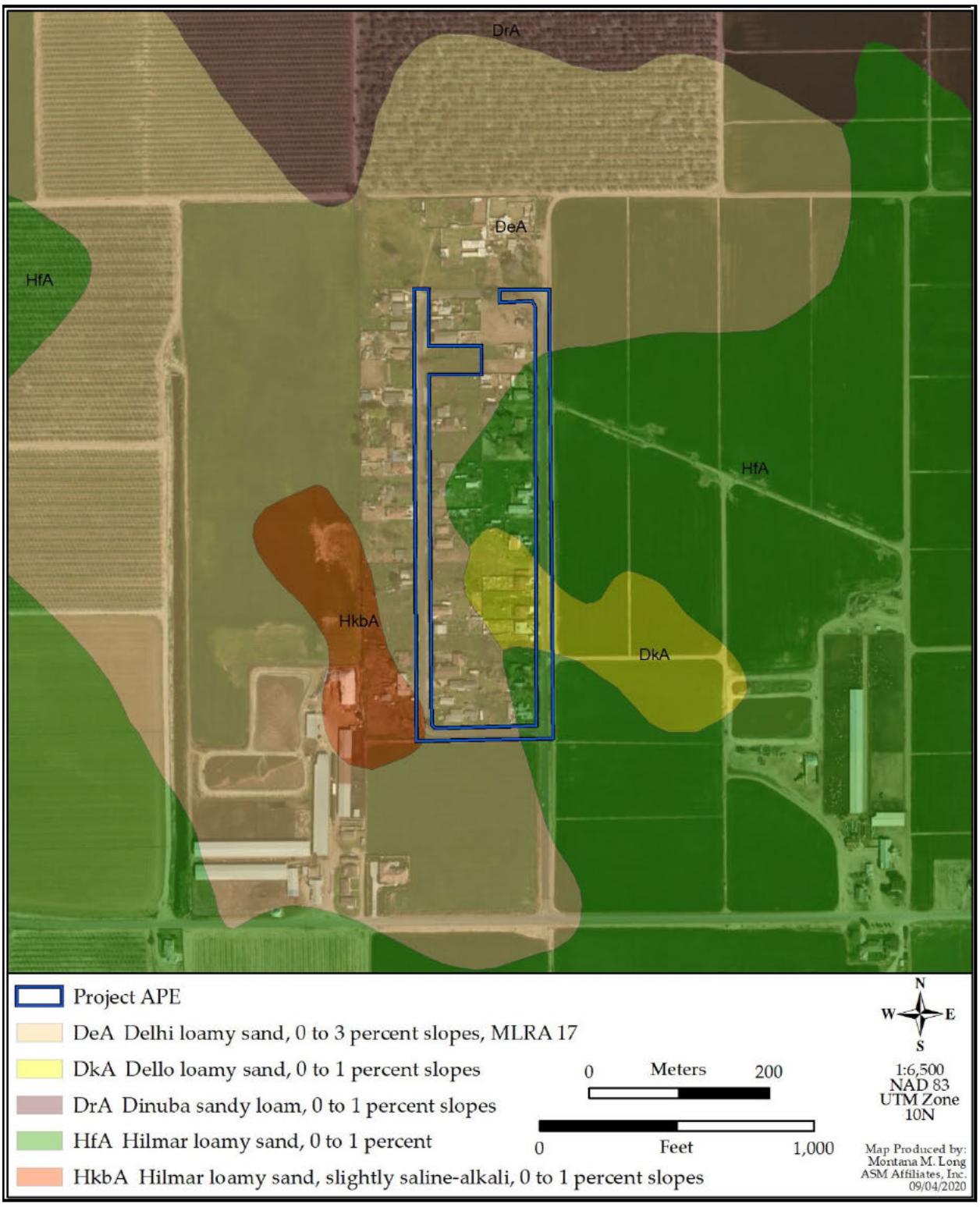


Figure 4. Soils of the Project area and vicinity.

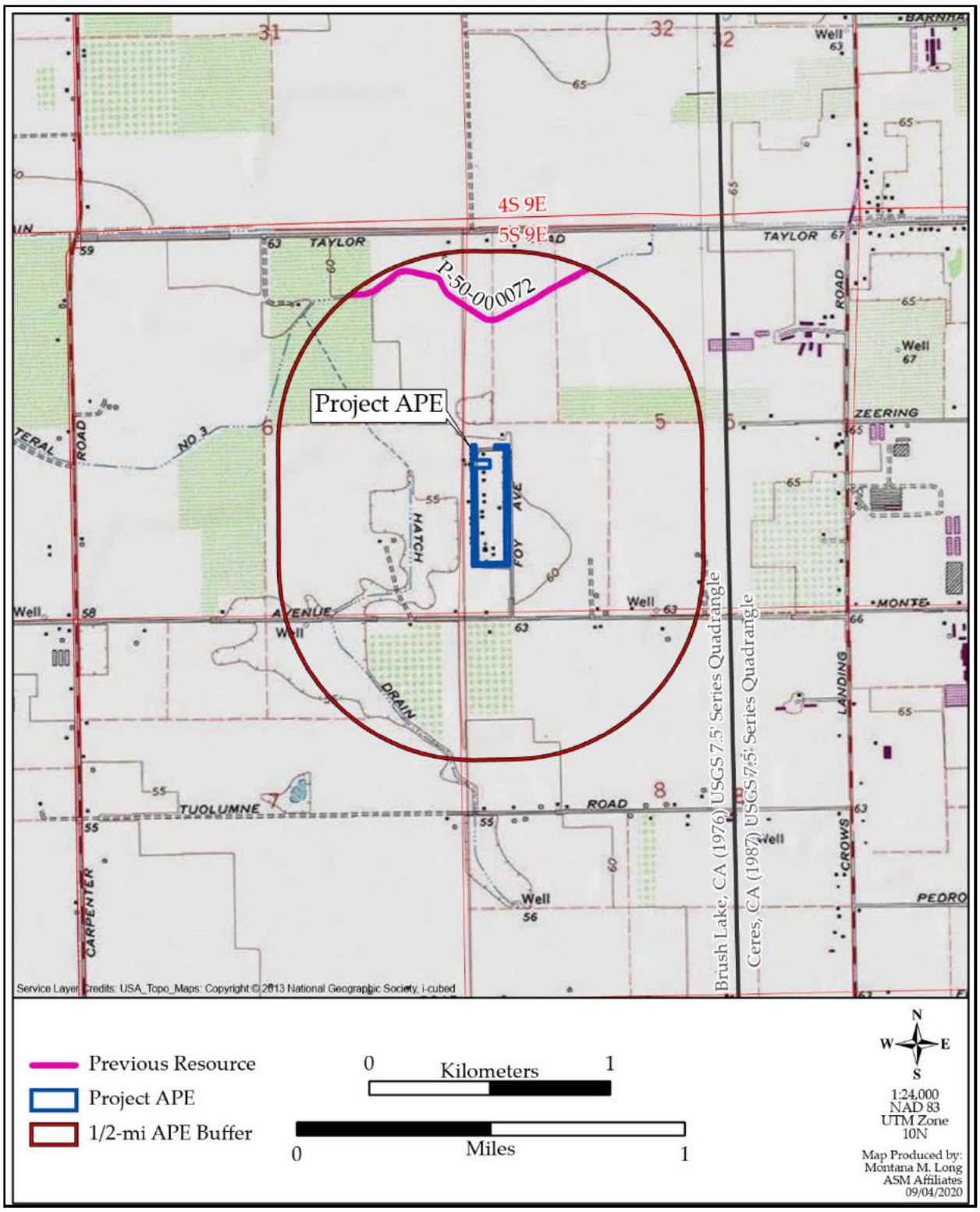


Figure 5. Confidential—previously recorded resources within 0.5 mi. of Area of Potential Effects.

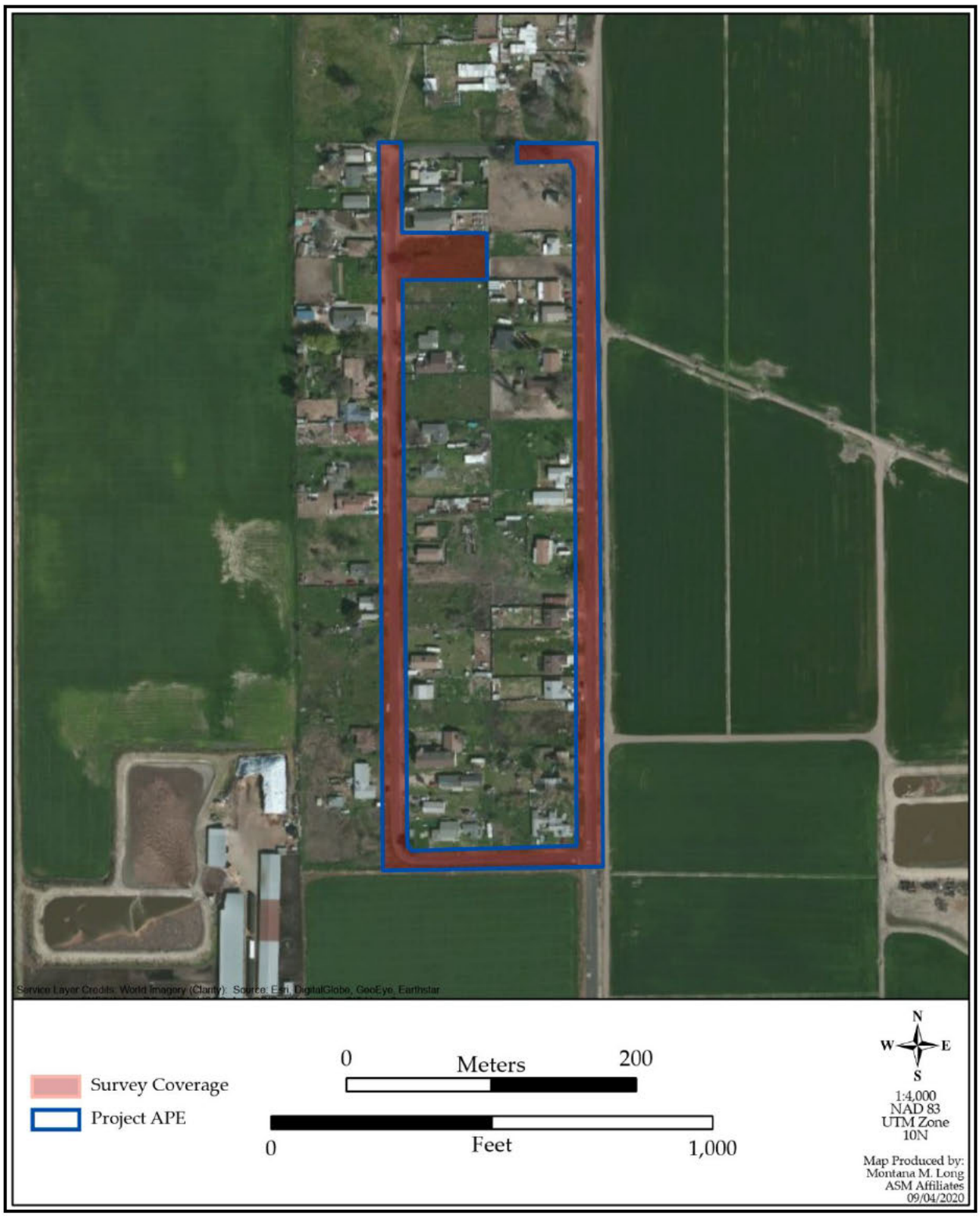


Figure 6. Survey coverage.

Additional Figures

Figure 7. Proposed WWTP location at southern vacant gravel lot. View northwest.

Figure 8. Proposed WWTP location at northern vacant dirt lot. View south.

Figure 9. Overview of APE at intersection of Durango Avenue and Fox Street. View south.

Figure 10. Overview of APE on Monterey Avenue. View west.

Figure 11. Overview of APE at Fox Avenue. View north.

Appendix B

(Confidential): Records Search Results

CENTRAL CALIFORNIA INFORMATION CENTER

California Historical Resources Information System
Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307

Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties

Date: 8/12/2020

Records Search File No.: 11471N
Access Agreement: #265
Project: P192.20 Monterey Park Wastewater Survey_C&B Planning

Deanna Keegan
ASM Affiliates
1919 21st Street
Sacramento, CA 95811
916-619-7119

Billing address: 2034 Corte Del Nogal
Carlsbad, CA 92011

DKeegan@asmaffiliates.com

Dear Ms. Keegan:

The Central California Information Center received your record search request for the project area referenced above, located on the Brush Lake 7.5' quadrangle in Stanislaus County. The following reflects the results of the records search for the project study area and radius:

As per data currently available at the CCaIC, the locations of resources/reports are provided in the following format: ☐ custom GIS maps ☒ shape files ☐ hand-drawn maps

Summary Data:

Resources within the project area:	None formally reported to the Information Center.
Resources within the 1/2-mile radius:	1: P-50-000072
Reports within the project area:	2: ST-05471 and 7943
Reports within the 1/2-mile radius:	None other than the extension of the 2 report boundaries referenced above into the radius area.

Resource Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Database Printout (details):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (list):	☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (details):	☒ enclosed	☐ not requested	☐ nothing listed
Report Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed
Resource Record Copies:	☒ enclosed	☐ not requested	☐ nothing listed
Report Copies:	☒ enclosed	☐ not requested	☐ nothing listed

OHP Historic Properties Directory: New Excel File: Built Environment Resource Directory (BERD)
Dated 12/17/2019 ☒ enclosed ☐ not requested ☐ nothing listed
P-50-000072
Archaeological Determinations of Eligibility: ☐ enclosed ☐ not requested ☒ nothing listed
CA Inventory of Historic Resources (1976): ☐ enclosed ☐ not requested ☒ nothing listed
Caltrans Bridge Survey: ☐ enclosed ☒ not requested ☐ nothing listed
Ethnographic Information: ☐ enclosed ☒ not requested ☐ nothing listed
Historical Literature: ☐ enclosed ☒ not requested ☐ nothing listed
Historical Maps: ☐ enclosed ☒ not requested ☐ nothing listed
Local Inventories: ☐ enclosed ☒ not requested ☐ nothing listed
GLO and/or Rancho Plat Maps: ☐ enclosed ☒ not requested ☐ nothing listed
Shipwreck Inventory: ☒ not available at CCIC; please go to http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp
Soil Survey Maps: ☒ not available at CCIC; please go to http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Note: Billing will be transmitted separately via email by our Financial Services office *($273.15), payable within 60 days of receipt of the invoice.

If you wish to include payment by Credit Card, you must wait to receive the official invoice from Financial Services so that you can reference the CMP # (Invoice Number), and then contact the link below:

https://commerce.cashnet.com/ANTHROPOLOGY

Sincerely,

E. A. Greathouse

E. A. Greathouse, Coordinator
Central California Information Center
California Historical Resources Information System

* Invoice Request sent to: Laurie Marroquin CSU Stanislaus Financial Services
lamarroquin@csustan.edu

Report Detail: ST-05471

Identifiers

Report No.: ST-05471

Other IDs:	*Type*	*Name*
	NADB-R	1365352

Cross-refs:

Citation information

Author(s): Varner, D.
Year: 2004 (Jun)
Title: A Cultural Resource Study of the Monterey Park Tract Community Services District, Stanislaus County, California.
Affliliation: Varner Associates
No. pages: 19
No. maps:
Attributes: Archaeological, Field study
Inventory size: 33 Acres
Disclosure: Not for publication
Collections: No

General notes

Associated resources

No. resources: 0
Has informals: No

Location information

County(ies): Stanislaus
USGS quad(s): Brush Lake
Address:
PLSS:

Database record metadata

	Date	*User*
Entered:	10/2/2013	jay
Last modified:	1/25/2017	Anthro

IC actions:	*Date*	*User*	*Action taken*
	10/2/2013	jay	Appended records from CCIC NADB database
	1/25/2017	Anthro	JS

Record status:

Report Detail: ST-07943

Identifiers

Report No.: ST-07943
Other IDs:
Cross-refs:

Citation information

Author(s): Davis-King, S.
Year: 2014
Title: Historical Resources Survey Report for the Proposed Monterey Park Tract Water Improvement Project, Stanislaus County, California
Affliliation: Davis-King & Associates for J.B. Anderson Land Use Planning, Monterey Park Tract CSD
No. pages: 36
No. maps:
Attributes: Archaeological, Field study
Inventory size: 4.75 miles
Disclosure: Not for publication
Collections: No

General notes

Associated resources

Primary No.	*Trinomial*	*Name*
P-50-002153	CA-STA-000436H	Crow Monte Trash Scatter

No. resources: 1
Has informals: No

Location information

County(ies): Stanislaus
USGS quad(s): Brush Lake, Ceres
Address:
PLSS:

Database record metadata

	Date	*User*
Entered:	7/21/2014	anthro
Last modified:	1/27/2017	Anthro

IC actions:	*Date*	*User*	*Action taken*
	7/21/2014	anthro	eag
	1/27/2017	Anthro	JS

Record status:

Resource Detail: P-50-000072

Identifying information

Primary No.: P-50-000072
Trinomial:
Name: TID Laterals No. 3, Upper Lateral 3, & Lower Lateral No. 3
Other IDs:

Type	*Name*
Resource Name	TID Laterals No. 3, Upper Lateral 3, & Lower Lateral No. 3

Cross-refs:

Attributes

Resource type: Structure
Age: Historic
Information base: Survey
Attribute codes: HP20 (Canal/aqueduct) - irrigation canals
Disclosure: Unrestricted
Collections: No
Accession no(s):
Facility:

General notes

Recording events

Date	*Recorder(s)*	*Affiliation*	*Notes*
5/28/1993	JRP	JRP	
3/16/2009	Lawson	CH2MHILL	
2/10/2000	Marvin	Foothill Resources, Ltd.	

Associated reports

Report No.	*Year*	*Title*	*Affiliation*
ME-02759	1995	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project; Final. [multivolume report]	Woodward Clyde Associates; for Mojave Pipeline Company
SJ-02759	1995	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project, Final.	Woodward Clyde Consultants, prepared for Mojave Pipeline Company
ST-02759	1995	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project.	Woodward-Clyde Consultants; for Mojave Pipeline Company
ST-07775	2011	Cultural Resources Monitoring and Mitigation Plan, Almond 2 Power Plant, Turlock Irrigation District.	CH2MHILL

Location information

County: Stanislaus
USGS quad(s): Brush Lake, Ceres
Address:
PLSS: T5S R9E Sec. 5 MDBM
T5S R9E Sec. 6 MDBM
T5S R8E Sec. 1 MDBM
UTMs:

Management status

Database record metadata

	Date	*User*
Entered:	7/16/2010	ccic-admin
Last modified:	1/8/2020	egreathouse
IC actions:		
Record status:		

Appendix C

Native American Outreach

Ted Bibby

From: Ted Bibby
Sent: Friday, August 14, 2020 12:21 PM
To: 'nahc@nahc.ca.gov'
Cc: Deanna Keegan
Subject: Sacred Lands File Search request: Monterey Park CSD Sewer Project
Attachments: P35480_Sacred-Lands-File-NA-Contact-Form.pdf; P35480_Sacred-Lands-File_map.pdf

Hello,

Please find attached a Sacred Lands File & Native American Contacts List request for the Monterey Park CSD Sewer Project.

If you have any questions or need additional information please feel free to contact me.

Thank you,

-Ted Bibby

Ted Bibby, Ph.D.
Director
ASM Affiliates • Sacramento, CA
(916) 619-7119
tbibby@asmaffiliates.com
www.asmaffiliates.com

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Monterey Park CSD Sewer Project

County: Stanislaus County, CA

USGS Quadrangle Name: Brush Lake, CA (1976)

Township: 5S **Range:** 9E **Section(s):** 5

Company/Firm/Agency: ASM Affiliates Inc.

Street Address: 1919 21st St. #202

City: Sacramento **Zip:** 95811

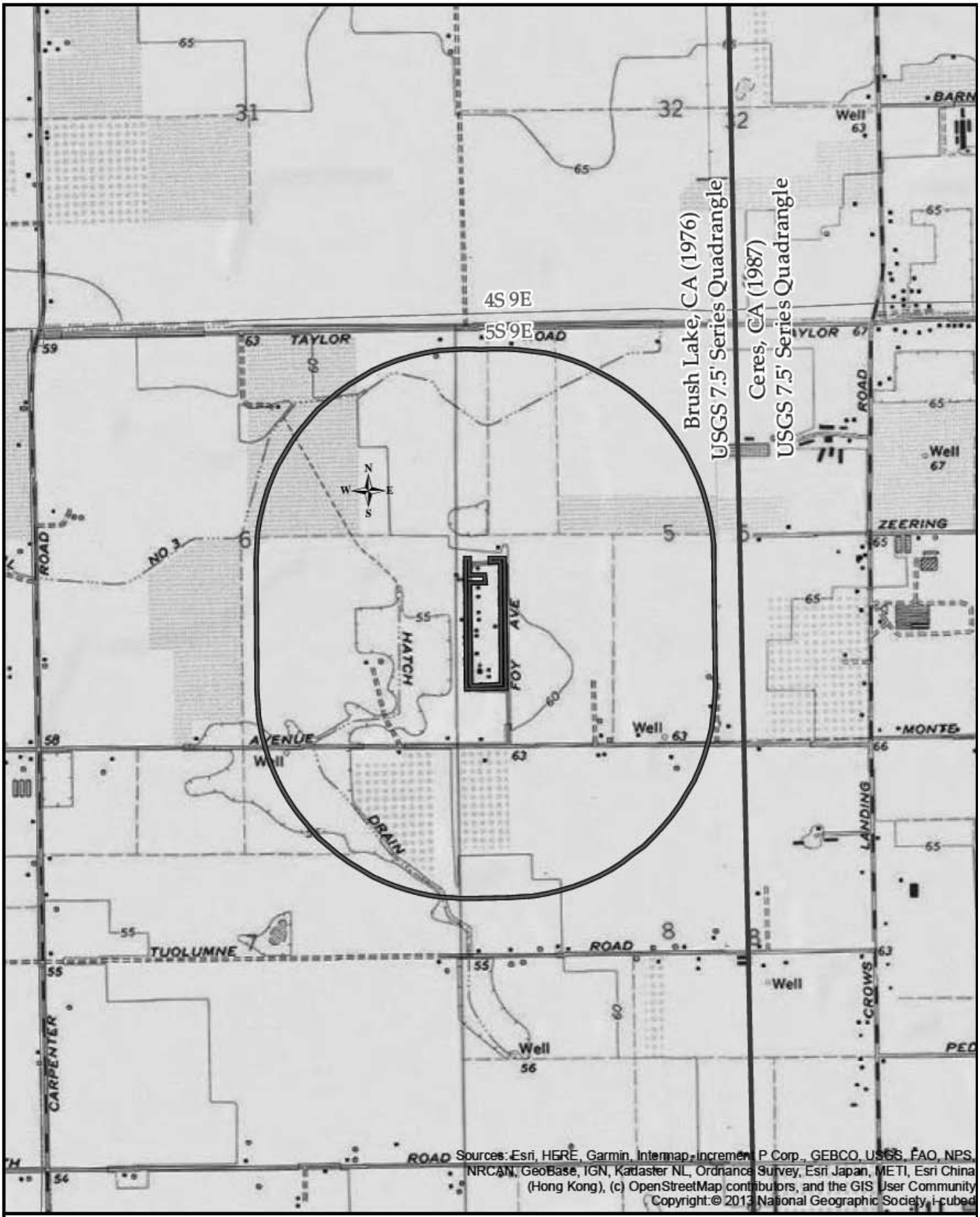
Phone: 916-619-7119

Fax: n/a

Email: tbibby@asmaffiliates.com

Project Description:

A wastewater treatment facility and associated wastewater pipes are proposed to be built for the Monterey Park Community Services District (MPCSD). Approximately 0.75 miles of pipeline will be buried adjacent to the existing roadway through the MPCSD, and the wastewater treatment facility is proposed to be built on a ~ 0.5 acre vacant lot within the district. A project area map is attached in the accompanied email.



Project APE

1/2-mile Buffer

0 Kilometers 1

0 Miles 1

N
W E
S

1:24,000
NAD 83
UTM Zone
10N

Map Produced by:
Montana M. Long
ASM Affiliates, Inc.
08/04/2020

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

August 20, 2020

Ted Bibby

ASM Affiliates

Via Email to: tbibby@asmaffiliates.com

Re: Monterey Park CSD Sewer Project, Stanislaus County

Dear Mr. Bibby:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,

Nancy Gonzalez-Lopez
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Stanislaus County
8/20/2020

North Valley Yokuts Tribe
Timothy Perez, MLD Contact
P.O. Box 717
Linden, CA, 95236
Phone: (209) 662 - 2788
huskanam@gmail.com

Costanoan
Northern Valley
Yokut

North Valley Yokuts Tribe
Katherine Perez, Chairperson
P.O. Box 717
Linden, CA, 95236
Phone: (209) 887 - 3415
canutes@verizon.net

Costanoan
Northern Valley
Yokut

Southern Sierra Miwuk Nation
William Leonard, Chairperson
P.O. Box 186
Mariposa, CA, 95338
Phone: (209) 628 - 8603

Miwok
Northern Valley
Yokut
Paiute

This list is current only as of the date of this document. Distribu ion of his list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Monterey Park CSD Sewer Project, Stanislaus County.

ASM affiliates
Archaeology • History • Ethnography • Architectural History

August 20, 2020

Timothy Perez, MLD Contact
P.O. Box 717
Linden, CA, 95236

Re: Cultural Resources Survey, Wastewater Treatment and Sewer Network Project, Monterey Park Tract Community Services District, Stanislaus County, California

Dear Mr. Perez:

The Monterey Park Tract Community Services District (MPTCSD), Stanislaus County, California, proposes to construct a water treatment plant and install associated drainpipes to replace the use of septic systems throughout the MPTCSD (Project). The Project APE comprises approximately 0.75 miles of pipeline and approximately 0.5 acres of vacant land which will be used for the construction of a water treatment plant. Currently, individual septic tanks and leach fields are used for sewer service. The construction of a water treatment plant and associated infrastructure is intended to serve 50 households, a church, and a community center, for a total of 55 active water service connections. The estimated served population of the community is approximately 133 people according to the 2010 census. The Project will involve trenching and some excavation of a 0.5 acre vacant property for installation of storage tanks, sewer pipeline, and associated water treatment systems, as well as pipeline trenching along Monterey Ave., La Siesta Ave., Foy Ave., and Durango St. for installation of drainpipes to transport effluent from adjacent properties. The proposed Project is located approximately 5 miles south of the City of Ceres in Stanislaus County and approximately 1 mile west of the intersection of Crows Landing Road and West Monte Vista Avenue., CA within Township 5S Range 9E Sections 5-8, (Figure 1).

ASM Affiliates (ASM) has been retained by Crawford & Bowen Planning, Inc. of Visalia, California to conduct a cultural resource study for the Project. We are writing to determine if you have any concerns about or knowledge of tribal cultural resources within or adjacent to the project area. According to a record search of the Native American Heritage Commission Sacred Lands Files and the Central California Information Center, California State University, two previous studies have been conducted in the study area and no cultural resources of any kind are known to exist within it. In addition, one previous resource (an irrigation canal) is known to exist within 0.5-mi of the study area (Figure 2).

We would be grateful for any information you might have about this project location. Please feel free to contact us by email at TBibby@asmaffiliates.com and DKeegan@asmaffiliates.com, or 916-619-7119.

Respectfully,

Ted Bibby, Ph.D.
Director
916-619-7119
TBibby@asmaffiliates.com

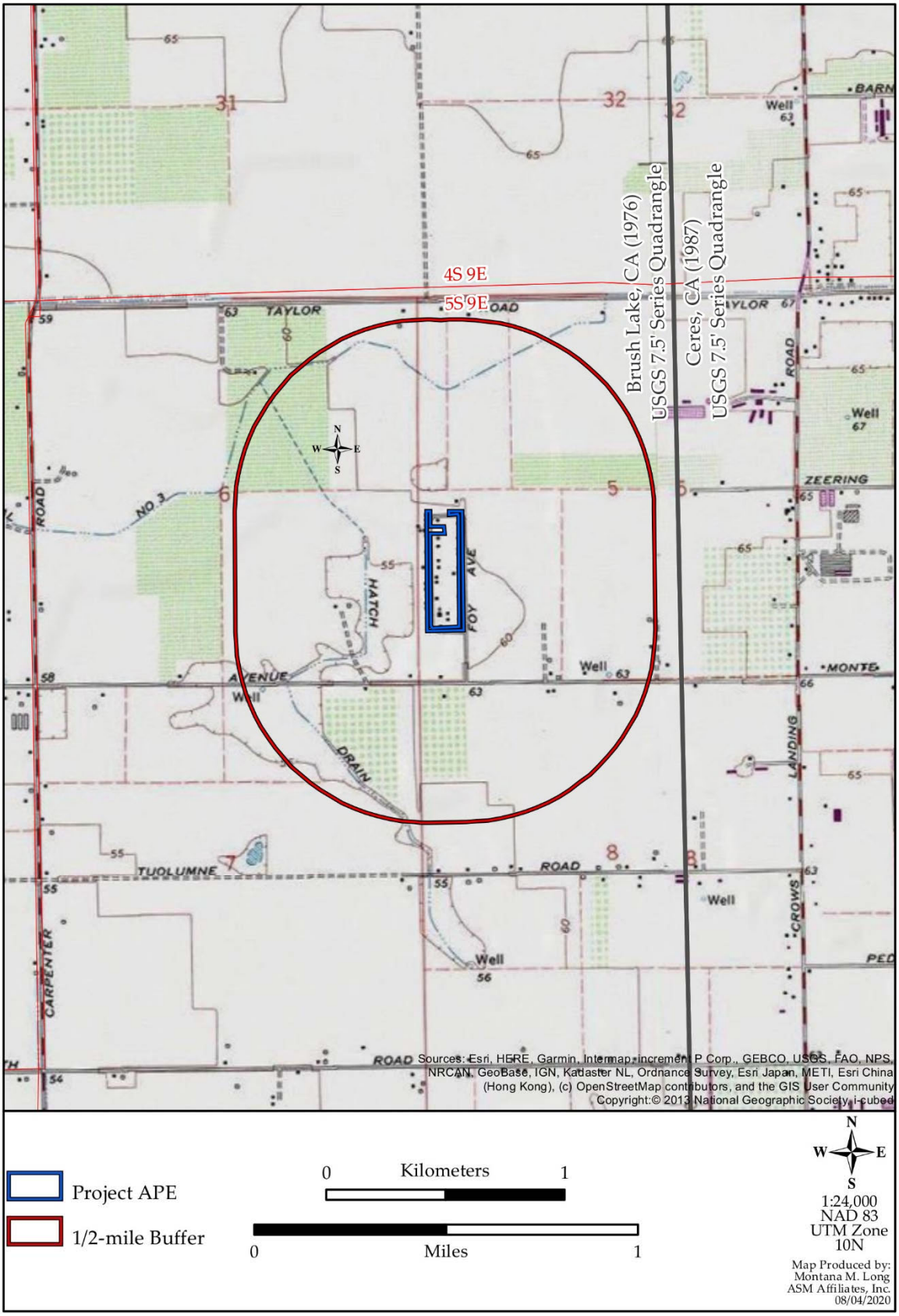


Figure 1. Project location and ½ mile records search buffer.

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-50-000072		Resource Name - TID Laterals No. 3, Upper Lateral 3, & Lower Lateral No. 3	Structure	Historic	HP20	1993 (JRP, JRP); 2000 (Marvin, Foothill Resources, Ltd.); 2009 (Lawson, CH2MHILL)	ME-02759, SJ-02759, ST-02759, ST-07775

Page 1 of 1

CCIC 8/11/2020 3:40:22 PM

Figure 2. Resources within 1/2 mile of the Project APE

ASM affiliates
Archaeology • History • Ethnography • Architectural History

August 20, 2020

Katherine Perez, Chairperson
P.O. Box 717
Linden, CA, 95236

Re: Cultural Resources Survey, Wastewater Treatment and Sewer Network Project, Monterey Park Tract Community Services District, Stanislaus County, California

Dear Chairperson Perez:

The Monterey Park Tract Community Services District (MPTCSD), Stanislaus County, California, proposes to construct a water treatment plant and install associated drainpipes to replace the use of septic systems throughout the MPTCSD (Project). The Project APE comprises approximately 0.75 miles of pipeline and approximately 0.5 acres of vacant land which will be used for the construction of a water treatment plant. Currently, individual septic tanks and leach fields are used for sewer service. The construction of a water treatment plant and associated infrastructure is intended to serve 50 households, a church, and a community center, for a total of 55 active water service connections. The estimated served population of the community is approximately 133 people according to the 2010 census. The Project will involve trenching and some excavation of a 0.5 acre vacant property for installation of storage tanks, sewer pipeline, and associated water treatment systems, as well as pipeline trenching along Monterey Ave., La Siesta Ave., Foy Ave., and Durango St. for installation of drainpipes to transport effluent from adjacent properties. The proposed Project is located approximately 5 miles south of the City of Ceres in Stanislaus County and approximately 1 mile west of the intersection of Crows Landing Road and West Monte Vista Avenue., CA within Township 5S Range 9E Sections 5-8, (Figure 1).

ASM Affiliates (ASM) has been retained by Crawford & Bowen Planning, Inc. of Visalia, California to conduct a cultural resource study for the Project. We are writing to determine if you have any concerns about or knowledge of tribal cultural resources within or adjacent to the project area. According to a record search of the Native American Heritage Commission Sacred Lands Files and the Central California Information Center, California State University, two previous studies have been conducted in the study area and no cultural resources of any kind are known to exist within it. In addition, one previous resource (an irrigation canal) is known to exist within 0.5-mi of the study area (Figure 2).

We would be grateful for any information you might have about this project location. Please feel free to contact us by email at TBibby@asmaffiliates.com and DKeegan@asmaffiliates.com, or 916-619-7119.

Respectfully,

Ted Bibby, Ph.D.
Director
916-619-7119
TBibby@asmaffiliates.com

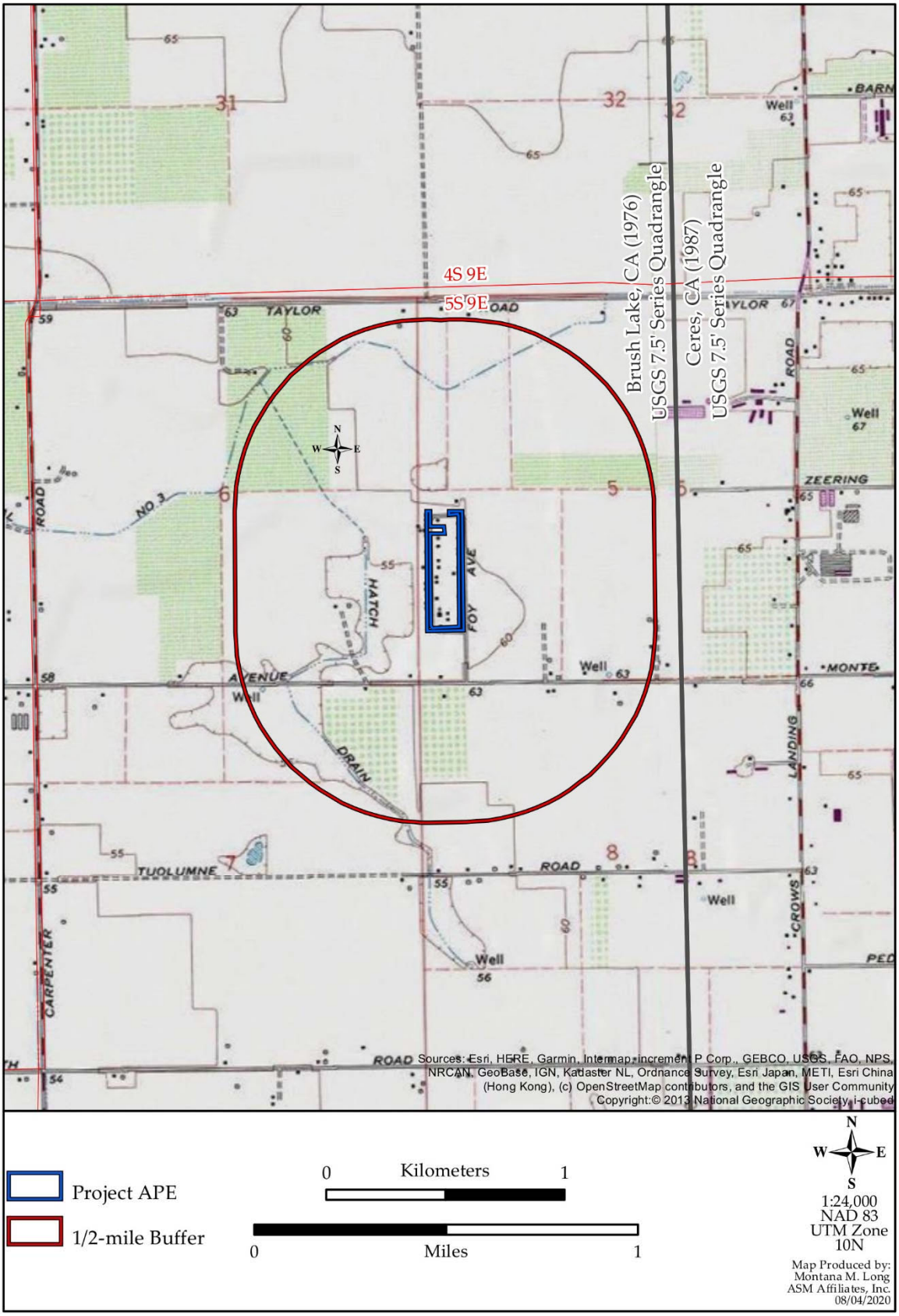


Figure 1. Project location and ½ mile records search buffer.

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-50-000072		Resource Name - TID Laterals No. 3, Upper Lateral 3, & Lower Lateral No. 3	Structure	Historic	HP20	1993 (JRP, JRP); 2000 (Marvin, Foothill Resources, Ltd.); 2009 (Lawson, CH2MHILL)	ME-02759, SJ-02759, ST-02759, ST-07775

Page 1 of 1

CCIC 8/11/2020 3:40:22 PM

Figure 2. Resources within 1/2 mile of the Project APE

ASM affiliates
Archaeology • History • Ethnography • Architectural History

August 20, 2020

William Leonard, Chairperson
P.O. Box 186
Mariposa, CA, 95338

Re: Cultural Resources Survey, Wastewater Treatment and Sewer Network Project, Monterey Park Tract Community Services District, Stanislaus County, California

Dear Chairperson Leonard:

The Monterey Park Tract Community Services District (MPTCSD), Stanislaus County, California, proposes to construct a water treatment plant and install associated drainpipes to replace the use of septic systems throughout the MPTCSD (Project). The Project APE comprises approximately 0.75 miles of pipeline and approximately 0.5 acres of vacant land which will be used for the construction of a water treatment plant. Currently, individual septic tanks and leach fields are used for sewer service. The construction of a water treatment plant and associated infrastructure is intended to serve 50 households, a church, and a community center, for a total of 55 active water service connections. The estimated served population of the community is approximately 133 people according to the 2010 census. The Project will involve trenching and some excavation of a 0.5 acre vacant property for installation of storage tanks, sewer pipeline, and associated water treatment systems, as well as pipeline trenching along Monterey Ave., La Siesta Ave., Foy Ave., and Durango St. for installation of drainpipes to transport effluent from adjacent properties. The proposed Project is located approximately 5 miles south of the City of Ceres in Stanislaus County and approximately 1 mile west of the intersection of Crows Landing Road and West Monte Vista Avenue., CA within Township 5S Range 9E Sections 5-8, (Figure 1).

ASM Affiliates (ASM) has been retained by Crawford & Bowen Planning, Inc. of Visalia, California to conduct a cultural resource study for the Project. We are writing to determine if you have any concerns about or knowledge of tribal cultural resources within or adjacent to the project area. According to a record search of the Native American Heritage Commission Sacred Lands Files and the Central California Information Center, California State University, two previous studies have been conducted in the study area and no cultural resources of any kind are known to exist within it. In addition, one previous resource (an irrigation canal) is known to exist within 0.5-mi of the study area (Figure 2).

We would be grateful for any information you might have about this project location. Please feel free to contact us by email at TBibby@asmaffiliates.com and DKeegan@asmaffiliates.com, or 916-619-7119.

Respectfully,

Ted Bibby, Ph.D.
Director
916-619-7119
TBibby@asmaffiliates.com

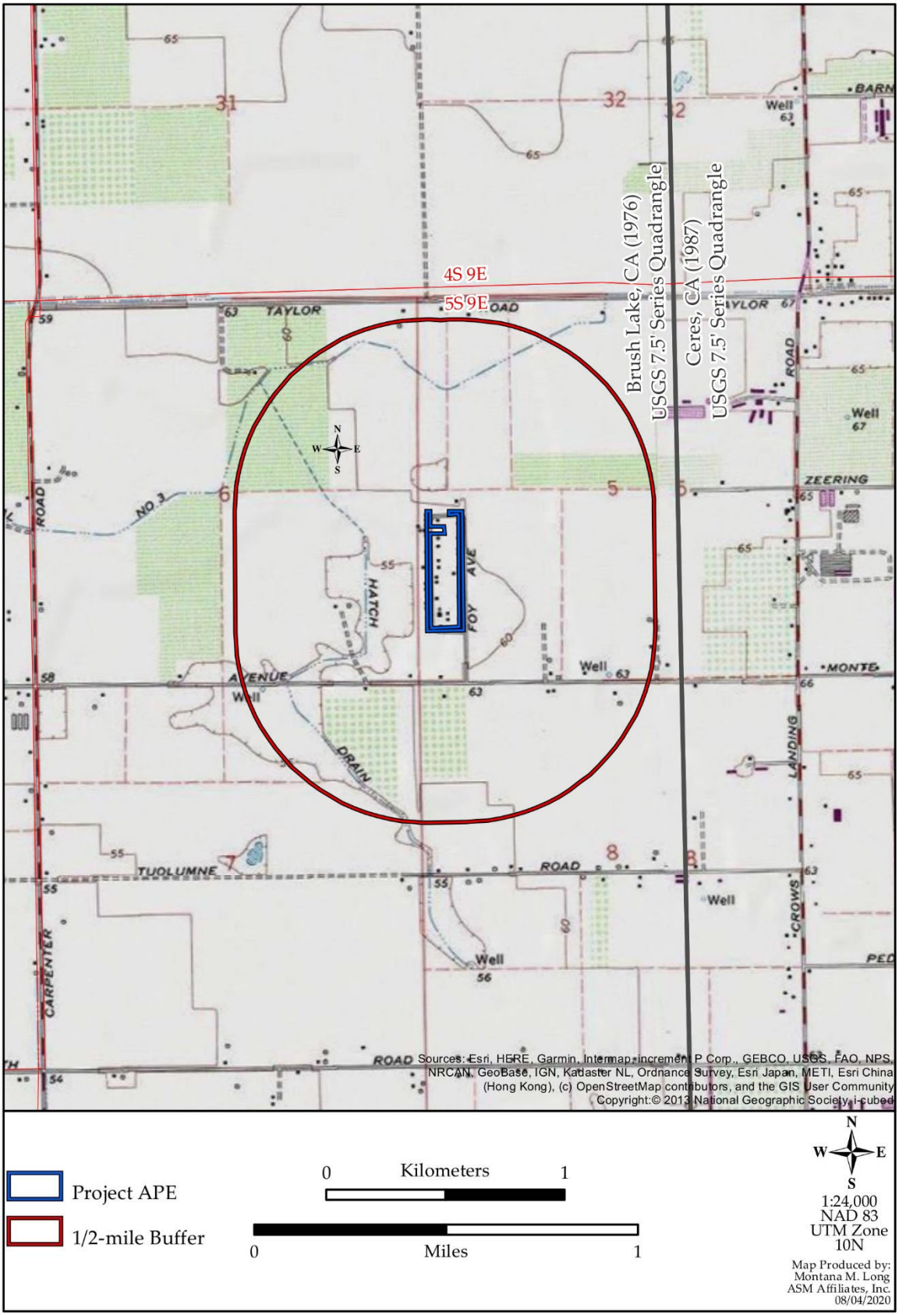


Figure 1. Project location and ½ mile records search buffer.

Resource List

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-50-000072		Resource Name - TID Laterals No. 3, Upper Lateral 3, & Lower Lateral No. 3	Structure	Historic	HP20	1993 (JRP, JRP); 2000 (Marvin, Foothill Resources, Ltd.); 2009 (Lawson, CH2MHILL)	ME-02759, SJ-02759, ST-02759, ST-07775

Page 1 of 1

CCIC 8/11/2020 3:40:22 PM

Figure 2. Resources within 1/2 mile of the Project APE

Appendix D

Professional Qualifications

Deanna Keegan, M.A., RPA

Senior Archaeologist

Firm Name: ASM Affiliates, Inc., Sacramento, California

Total Years of Experience: 9

Employment History:

2019-Present	Senior Archaeologist, ASM Affiliates, Sacramento, California
2017-2019	Associate Archaeologist, Environmental Science Associates, Sacramento, California
2017-2019	Wildfire Archaeologist, Institute for Canine Forensics, California
2016	Archaeological Technician, USFS Mendocino National Forest, Upper Lake, California
2016	Archaeologist, Site Supervisor, Caherconnell Stone Fort, Carran, Co. Clare, Ireland
2015-2016	Archaeological Technician, National University of Ireland, Galway, Galway, Ireland
2014	Volunteer Archaeologist, USFS Umpqua National Forest, Roseburg, Oregon
2013-2015	Training Lead, Applied Anthropologist, Huron Consulting Group, Lake Oswego, Oregon
2013-2015	Volunteer Archaeologist, National Park Service – Fort Vancouver, Vancouver, Washington
2011	Archaeologist Intern, Bear River Band of Rohnerville Rancheria, Loleta, California
2010-2012	Archaeologist/Anthropologist Intern, Blue Lake Museum, Blue Lake, California

Education:

M.A.	2016/Landscape Archaeology/National University of Ireland, Galway; Galway, Ireland
B.A.	2012/Anthropology/Humboldt State University, Arcata, California

Additional Training:

2019	Advanced CEQA Workshop, Environmental Science Associates
2019	Section 106 of the National Historic Preservation Act, National Preservation Institute

Registrations:

2018-2019	Register of Professional Archaeologists
2017-2020	Society for American Archaeology
2019	Society for California Archaeology
2017-2019	European Association of Archaeologists

Citizenship: USA

Languages: Limited working proficiency in reading/writing/speaking Irish Gaelic

Professional Profile:

Keegan is a Secretary of the Interior Qualified, Registered Professional Archaeologist with nine years of experience, with five being in consultancy. Her formal education at the National University of Ireland, Galway earned her a Master of Arts in Landscape Archaeology with 1st Class Honours, directly equivalent to Summa Cum Laude in the United States. She has participated in projects throughout California, Oregon, Washington, and the Republic of Ireland. Her breadth of experience is in both prehistoric and historic-period archaeology, in addition to anthropology. Keegan has led projects as a Principal Investigator and Field Director on multi-phase projects and has authored and co-authored environmental reports pursuant to compliance for NHPA, NEPA, CEQA, and the Republic of Ireland's *National Monuments Acts 1930 to 2004*. She has experience working with Native American tribes, federal, state, and local agencies. Keegan is well adept in archaeological theory and methodologies, including: pedestrian and geophysical surveying, construction monitoring, excavation, recordation, artifact and feature analysis, evaluations, including determinations of effect and eligibility, and reporting. Keegan has established and inforced resource mitigation measures for numerous projects, including developing and performing Worker Environmental Awareness Program trainings. She is proficient in ArcGIS software and various geospatial data collector devices. She consistently carries research and projects to full completion further disseminating results through research and project reports, records, conference papers, and a dissertation.

Selected Project Experience:

Extended Phase I, Mono County Airport Road Rehabilitation, Mammoth Lakes, CA
Co-Principal Investigator (04/2020-Present)
CLIENT: Mono County Department of Public Works
Prepared XPI proposal to Caltrans for approval to conduct presence/absence subsurface testing. Communicated with the Assistant Forest Archaeologist at Inyo National Forest (NF) to discuss existing Organic Act Permit stipulations and further requirements set by Inyo NF applicable to subsurface testing and curation. Fieldwork has been completed and is currently in the report writing stage. Keegan is responsible for updates to the Project Archaeological Survey Report and direct reporting to Mono County, Caltrans District 9, and Inyo NF.

Class III Inventory/Phase I Survey, Mendota Wetland Restoration Project, San Joaquin River, Mendota, Fresno County, CA
Principal Investigator (12/2019-5/2020)
CLIENT: WRA, Inc., on behalf of National Fish and Wildlife Foundation (NFWF)
Planned and implemented a Class III evaluation of a large-scale wetland restoration project. Keegan led a crew of associate archaeologists to conduct an intensive pedestrian survey. She is the primary author of the Cultural Resource Inventory Report.

Bureau of Land Management (BLM) South Graves Class III Inventory, South Graven, CA
Field Director (11/2019-Present)
CLIENT: BLM Applegate District
Planned a Class III evaluation for a large-scale sage-steppe restoration project in Modoc County. Prepared and submitted permits for field work authorization through BLM. Coordinated field staff for fieldwork in remote area. Submitted NAHC and NEIC records searches and reviewed results. Project is currently pending its fieldwork implementation phase. Keegan is actively preparing the final report.

Mono County Airport Road Rehabilitation Project, Mammoth Lakes, CA
Field Director (11/2019-5/2020)
CLIENT: Mono County Department of Public Works
Prepared permit applications for Organic Act Permit in coordination between Mono County Department of Public Works, Caltrans District 9, and Inyo NF. Reviewed documentary research from Eastern Information Center, Caltrans District 9, and Inyo NF for previously recorded cultural resources.

Virgin Trains USA XpressWest, Las Vegas, NV
Field Director (11/2019-03/2020)
CLIENT: ICF
Led field crew on a Class III intensive pedestrian survey along a 35-mile Limits of Disturbance alignment for a high-profile project. Collected and analyzed field data including newly identified historic-era and prehistoric isolates and sites, and updates to previously recorded cultural resources. Prepared a post-survey memo for the client summarizing preliminary findings. Keegan co-authored the final Cultural Resource Survey Inventory Report (CRSIR) and reviewed all IMACS recording forms.

Under Canvas Sequoia Project, Three Rivers, CA
Principal Investigator (07/2019-08/2019)
CLIENT: Under Canvas
Planned and conducted research as a Principal investigator for a Phase I assessment project. The client requested the development of a cultural resources sensitivity assessment in effort to establish initial regulatory requirements for the development of acquired land. Keegan planned and organized the assessment for the client, which produced a report detailing geoarchaeological and cultural resource sensitivity.

Lookout Slough Tidal Habitat Restoration and Flood Improvement Project, Dixon, CA
Archaeologist (06/2019-08/2019)
CLIENT: Ecosystem Investment Partners
Planned and conducted a Phase I evaluation for a large-scale, sensitive California Delta restoration project. Archaeological investigation included research, recordation and assessment of cultural resources, and recommendations of eligibility. Findings were disseminated in a cultural resources inventory report pursuant to CEQA and NHPA.

Willie "Woo Woo" Wong Playground, San Francisco, CA
Principal Investigator (04/2019-08/2019)
CLIENT: City of San Francisco Planning Department
Provided cultural resource assessments on inadvertent discoveries for a development project in China Town. Organized collaboration efforts of artifact collection, handing, analysis, and dissemination of findings between archaeological staff, construction crew, and City of San Francisco. Supervised all ground disturbance activities between initial inadvertent discovery and final grade. Produced a detailed report on the project from inadvertent discovery to completion pursuant to CEQA.

Storm Damage DWR Emergency Rehabilitation (SDDER), Northern California
Archaeologist (08/2018-08/2019)
CLIENT: DWR
Coordinated on-site visits and pedestrian surveys for multi-phase levee repair projects. Conducted intensive pedestrian surveys with archaeology team and reported findings. Provided support to the client regarding all tribal concerns. Tracked timesheets, monitor logs, and mileage for all tribal monitors on the project.

Cultural Resources Support for Division of Operations & Maintenance (O&M), Northern California
Archaeologist and Field Director (06/2018-08/2019)
CLIENT: California Department of Water Resources
Developed and provided Worker Environmental Awareness Program trainings for client personnel. Planned extensive pedestrian surveys involving several staff. Organized on- and off-site coordination between the client, cultural, and tribal staff, including site visits, pedestrian surveys, and construction monitoring. Conducted pedestrian surveys and monitoring if technical staff were unavailable. Assessed cultural sensitivity of proposed work areas prior per regulatory compliance. Provided reporting for various levee improvement projects organized through the California Department of Water Resources O&M division.

Oroville Spillway Emergency Project, Oroville, CA
Archaeologist and Field Director (05/2017-08/2019)
CLIENT: California Department of Water Resources (DWR)
Held overall responsibility for cultural resources for on-site activities and the upholding of regulatory compliance requirements for this complex project involving emergency response and repairs to the Oroville Dam Spillway and Emergency Spillway, including additional park infrastructure improvements. Conducted extensive field surveying, excavations, site assessments, monitoring, and Native American consultation. Provided daily and weekly monitoring reports for all on-site cultural staff. Assessed contractor proposed work plans and implemented mitigation measures as needed. All work was conducted in support of Section 106 compliance, with FERC as lead reviewing agency.

City of Sacramento, Accelerated Water Meter Program, Sacramento, CA
Archaeologist and Field Director (05/2018-08/2019)
CLIENT: Carollo Engineers, Inc.
Provided Worker Environmental Awareness Program trainings to all contractors working for the City as part of regulatory compliance. Held overall responsibility for implementing the Post-Review Discovery Plan (PRDP) when inadvertent discoveries were made. Collaborated with the City on construction kick-off meetings to ensure contractors were aware of the PRDP and federal and state compliance as they pertain to cultural resources. Work was conducted as part of NEPA/106 and CEQA compliance, with the CA State Water Resources Control Board and the City of Sacramento as lead reviewing agencies.

Tuolumne Rancheria Fee-to-Trust Taylor Parcel, Tuolumne, CA
Principal Investigator (06/2019-07/2019)
CLIENT: Tuolumne Band of Me-Wuk Indians
Planned and coordinated site visits and pedestrian survey with tribal staff. Conducted extensive research on fee to trust parcel. Collected, analyzed, evaluated, and reported all new archaeological data obtained during project implementation, including determinations of eligibility. Provided findings disseminated in a cultural resources survey report pursuant to NEPA compliance.

Catuna Residential Care Project
Principal Investigator (06/2019-07/2019)
CLIENT: County of Placer Office of Planning and Environmental Review, on behalf of Prestige Senior Care
Planned and conducted a Phase I evaluation for a client in response to compliance and regulation requirements stipulated by County of Placer, California. The archaeological investigation included research, recordation and assessment of cultural resources, and recommendations of eligibility. Findings were disseminated in a cultural resources inventory report tailored to CEQA and County of Placer requirements.

Theodore Bibby, Ph.D.,

Director, Geologist, Geomorphologist, Geoarchaeologist

Firm Name: ASM Affiliates, Inc., Sacramento, California

Total Years of Experience: 13

Employment History:

2019-present	Director, Geomorphology, ASM Affiliates, Inc., Sacramento, California
2018-2019	GIS Specialist, ASM Affiliates, Inc., Hilo, Hawaii
2016-2017	Lecturer (*GIS & Remote Sensing, Geology Field Methods, Introductory Geology*), Department of Earth Science, University of California, Santa Barbara, California
2015-2017	Adjunct Assistant Professor, School of Geology and Geological Engineering, University of North Dakota, Grand Forks, North Dakota
2015-2016	Geologist, Geosyntec Consultants, Santa Barbara, California
2014	Researcher/Geomorphologist, School of Geology and Geological Engineering, University of North Dakota, Grand Forks, North Dakota
2013	Visiting Researcher, Purdue Rare Isotope Measurement Laboratory, Purdue University, West Lafayette, Indiana
2010	Terrestrial LiDAR Scanning, Mono Basin, Sierra Nevada CA
2009	Seismic Analysis of the Lake St. Martin Impact Structure, Manitoba, Canada, University of North Dakota, Grand Forks, ND
2007	ANDRILL II ("ANtarctic geological DRILLing") Curatorial Science Team, (http://andrill.org) McMurdo Station, Antarctica
2007-2009	Lab/Research Assistant, Antarctic Marine Geology Research Facility (AMGRF), Florida State University, Tallahassee, FL

Education:

Ph.D.	2014/Geology/Geomorphology/University of North Dakota, Grand Forks, North Dakota
B.S.	2009/Geology/Florida State University, Tallahassee, Florida

Professional Profile:

Dr. Bibby has over 13 years' experience with Geomorphology, Geology, Geoarchaeology, GIS, radiometric dating, and remote sensing for cultural resource management, academic, and environmental projects. His consulting and research experience includes projects throughout Hawai'i, California, Florida, North Dakota, Nepal, and Antarctica. Dr. Bibby is knowledgeable on sampling protocols, investigation strategy, laboratory methods, data analysis, guidance, and state of the industry. He has worked on projects throughout California and prepared reports for the U.S. EPA, the Department of Toxic Substances Control (DTSC), Regional Water Quality Control Board (RWQCB), Bureau of Land Management (BLM), Caltrans, US Forest Service, and local regulatory agencies.

He received his Ph.D. in Geology and Geological Engineering from the University of North Dakota, where he used radiometric isotopes to constrain the age, timing and extent of glaciers. Prior to working at ASM, Dr. Bibby served as a Lecturer in the Earth Science Department at the University of California Santa Barbara, teaching courses in geology, field methods, and GIS. Dr. Bibby is a member of the Geoarchaeology division of the Geological Society of America and has also served as a geologist and environmental professional for local, state, and federal environmental remediation projects throughout California. He holds a remote pilot certificate with a small UAS rating for the operation of UAVs and serves as ASM's resident geoarchaeologist/ geomorphologist out of the Sacramento, CA office.

Additional Training/ Technical Expertise:

2019	FAA sUAS Pilot Certificate
2017	Office of Maunakea Management, orientation and certificate for work permit, Hawaii
2016	Summer Institute on Earth-Surface Dynamics, Theme: Coupled hydro-eco-geomorphologic processes in human dominated landscapes: cascade of changes and the use of modeling for management and decision making, August 11-20, St. Anthony Falls Laboratory, University of Minnesota, Minneapolis, MN
2016	40-hour training HAZWOPER Certification
2006-2019	Flame Atomic Absorption Spectrometry (FAAS & GFAAS), Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES), Noble Gas Mass Spectrometer (NG-MS), Total Organic Carbon Analyzer (TOC), Ion Chromatograph (IC), Leica LIDAR (terrestrial laser mapping), acquisition and analysis of data sets, GeoTek Multi Sensor Core Logger (MSCL), resistivity and magnetic susceptibility probes, Geometrics Seismograph Geode and Geophones, JOEL 4500 Scanning Electron Microscope, Petro and Light microscope.

Registrations:

2018-present	Geological Society of America, Geoarchaeology Division
2016-2017	Council Member, Association of Polar Early Career Scientist (APECS)
2013-2016	American Geophysical Union (AGU)

Selected Project Experience:

Bureau of Land Management (BLM) 368 Energy Corridor Class III Inventory, Madeline Plains, CA, and Duck Flat NV
Project Manager (07/16-Present)
CLIENT: BLM Applegate and Eagle Lake Field Office
Managed project scheduling, budget, staff, GIS, field survey, and report writing for a Class III evaluation for a 3,771 acre project in Lassen CA and Washoe NV County.

Extended Phase I, Mono County Airport Road Rehabilitation, Mammoth Lakes, CA
Project Manager (04/2020-08/2020)
CLIENT: Mono County Department of Public Works
Managed project scheduling, budget, staff, and report writing for an Extended Phase I (XPI) subsurface testing project in coordination with Caltrans and Inyo National Forest for road rehabilitation.

Class III Inventory/Phase I Survey, Mendota Wetland Restoration Project, San Joaquin River, Mendota, Fresno County, CA
Project Manager (12/2019-5/2020)
CLIENT: WRA, Inc., on behalf of National Fish and Wildlife Foundation (NFWF)
Managed project scheduling, budget, staff, and report writing for a Class III evaluation of a large-scale wetland restoration project and historical architecture evaluation.

Bureau of Land Management (BLM) South Graves Class III Inventory, South Graven, CA
Project Manager (11/2019-Present)
CLIENT: BLM Applegate District
Managed project scheduling, budget, staff, and report writing for a Class III evaluation for a large-scale sage-steppe restoration project in Modoc County. Coordination with BLM.

Mono County Airport Road Rehabilitation Project, Mammoth Lakes, CA
Project Manager (11/2019-5/2020)
CLIENT: Mono County Department of Public Works
Managed project scheduling, budget, staff, and report writing for an Archaeological Survey Report in

coordination with Caltrans and Inyo National Forest for road rehabilitation.

Calico Early Man Site, documentation, remote sensing and geomorphology, Barstow, CA sUAS (08/2019-09/2019)
Client: Bureau of Land Management (BLM)
Coordinated, scheduled, and performed all aspects of sUAS planning, data acquisition, analysis, and processing for geomorphology, geospatial data, and 3D models to record site characteristics.

Geoarchaeology and terrestrial LiDAR study of Arlington Springs Man site, Santa Rosa Island, CA Principal Investigator (09/2015-09/2016)
Client: Santa Barbara Museum of Natural History
Worked with field archaeologists and scientists on the interpretation and analysis of soil chronologies and LiDAR datasets in combination with radiometric dates for the study of Late Pleistocene human remains on Santa Rosa Island, CA.

Arsenic plume and potential for groundwater contamination, planning, mitigation, and monitoring, Inyo Country, CA.
Field Geologist (05/2016-03/2016)
Client: Confidential
Coordinated and supervised water/soil sampling, modeling, and groundwater monitoring efforts. Including remote sensing, GIS deliverables, and database management for a site with arsenic contaminated groundwater in Inyo County. Deliverables included concentration dispersion/ interpolation and groundwater flow interpolation

Multiple projects, soil vapor, indoor air, ground water, and synthetic turf, sampling, monitoring, and reporting,
Field Geologist (10/2015-03/2016)
Client: Los Angeles Unified School District
Supervision, planning, sampling, analysis, and coordination efforts for environmental contaminants in groundwater, soil, soil vapor, synthetic turf, and ambient air on behalf of LAUSD to California State Water Resources Control Board and California Environmental Protection Agency (CalEPA).

Groundwater remediation, monitoring, and modeling for VOC, soil vapor, heavy metals, and installation of drinking water injection wells
Field Geologist (04/2015-03/2016)
Client(s): City of El Monte CA,
Supervision, planning, sampling, analysis, and coordination efforts for environmental contaminants in groundwater, soil, soil vapor to California State Water Resources Control Board and California Environmental Protection Agency (CalEPA).

Air quality and dust mitigation of naturally occurring asbestos (NOA), Los Angeles County, CA
Client: Confidential
Field Geologist (10/2015-12/2015)
Providing geologic field support for air quality and dust mitigation of naturally occurring asbestos while providing GIS support and deliverables for the sampling effort.

Soil and groundwater investigations for volatile organic compounds and metals, Former Litton Data Systems, Northrop Grumman, Van Nuys, CA
Field Geologist (11/2015-/03/2016)
Client: Northrop Grumman
Soil and groundwater investigations across the site assessing volatile organic compounds and metals. Facilitated groundwater well installation, monitoring and delineation efforts surrounding the former aerospace industry site. Supervision of various drilling techniques implemented (air rotary and mud-rotary) and site access issues resolved in meeting the regulatory requirements.