

Fresno Irrigation District

Savory Pond Project



Draft Initial Study/ Mitigated Negative Declaration

August 2020

Prepared for:
Fresno Irrigation District

Prepared by:
Provost & Pritchard Consulting Group
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Acronyms and Abbreviations

AB	Assembly Bill
AE	Exclusive Agriculture
AE-20	Exclusive Agriculture, 20-Acre Minimum
AF	Acre-Foot
AF/yr	Acre-Foot per year
APE	Area of Potential Effect
APN	Assessor's Parcel Number
BPS	Best Performance Standards
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
Cal/OSHA	California Division of Occupational Safety and Health
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFC	Chlorofluorocarbons
C ₂ H ₃ Cl	Vinyl Chloride
CH ₄	Methane
CHL	California Historical Landmarks
CHRIS	California Historical Resources Information System
CNDDDB	California Department of Fish and Wildlife Natural Diversity Database
CO	Carbon Monoxide
CO ₂ e	Carbon Dioxide Equivalent
CPHI	California Points of Historical Interest
CRHR	California Register of Historical Resources
District	Fresno Irrigation District
DOD	Department of Defense
DOGGR	Division of Oil, Gas, and Geothermal Resources

DPM.....	Diesel Particulate Matter
DTSC.....	Department of Toxic Substance Control
DWR.....	Department of Water Resources
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
FEMA.....	Federal Emergency Management Agency
FID	Fresno Irrigation District
FHSZ.....	Fire Hazard Severity Zone
FMMP.....	Farmland Mapping and Monitoring Program
GC	Government Code
GHG.....	Greenhouse Gas
GIS	Geographic Information System
GWP	Global Warming Potential
H ₂ S	Hydrogen Sulfide
HFC	Hydrofluorocarbons
IS	Initial Study
IS/MND.....	Initial Study/Mitigated Negative Declaration
MMRP	Mitigation Monitoring & Reporting Program
MND.....	Mitigated Negative Declaration
MT CO ₂ e.....	Metric Tons of Carbon Dioxide Equivalent
MT/yr.....	metric tons per year
NAAQS.....	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NGVD.....	National Geodetic Vertical Datum
ND	Negative Declaration
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxide
NPDES.....	National Pollutant Discharge Elimination System
NRCS.....	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O ₃	Ozone
OES	(Fresno County) Office of Emergency Services
Pb	Lead
PFC	Perfluorocarbons
PG&E.....	Pacific Gas & Electric Co.

PM _{2.5}	Particulate Matter less than 2.5 microns in diameter
PM ₁₀	Particulate Matter less than 10 microns in diameter
PRC	Public Resource Code
Project	Savory Pond
QSD	Qualified SWPPP Developer
ROG	Reactive Organic Gases
SF ₆	Sulfur hexafluoride
SHC	Streets and Highways Code
SHPO	State Office of Historic Preservation
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLIC	Spills-Leaks-Investigations-Cleanups
SMARA	Surface Mining and Reclamation Act of 1975
SO ₂	Sulfur Dioxide
SO ₄	Sulfates
SR	State Route
SSJVIC	Southern San Joaquin Valley Information Center
SWRCB	State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TAC	Toxic Air Contaminants
TPY	Tons Per Year
USDA	U. S. Department of Agriculture
USGS	U. S. Geological Survey
UST	Underground Storage Tank
µg/m ³	microgram per cubic meter

Chapter 1 Introduction

Provost & Pritchard Consulting Group (Provost & Pritchard) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) on behalf of Fresno Irrigation District (FID or District) to address the potential environmental impacts of the Savory Pond Project (Project or proposed Project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 *et seq.* The District is the CEQA lead agency for this proposed Project.

The site and the proposed Project are described in detail in the **Chapter 2 Project Description**.

1.1 Regulatory Information

An Initial Study (IS) is a document prepared by a lead agency to determine whether a project may have a significant effect on the environment. In accordance with California Code of Regulations Title 14 (Chapter 3, Section 15000, *et seq.*)-- also known as the CEQA Guidelines-- Section 15064 (a)(1) states that an environmental impact report (EIR) must be prepared if there is substantial evidence in light of the whole record that the proposed Project under review may have a significant effect on the environment and should be further analyzed to determine mitigation measures or project alternatives that might avoid or reduce project impacts to less than significant levels. A negative declaration (ND) may be prepared instead if the lead agency finds that there is no substantial evidence in light of the whole record that the project may have a significant effect on the environment. An ND is a written statement describing the reasons why a proposed Project, not otherwise exempt from CEQA, would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a ND or *mitigated* ND shall be prepared for a project subject to CEQA when either:

- a. The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed Project may have a significant effect on the environment, or
- b. The IS identified potentially significant effects, but:
 1. Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed MND and IS is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and
 2. There is no substantial evidence, in light of the whole record before the agency, that the proposed Project *as revised* may have a significant effect on the environment.

1.2 Document Format

This IS/MND contains six chapters and three appendices. **Chapter 1 Introduction**, provides an overview of the proposed Project and the CEQA process. **Chapter 2 Project Description**, provides a detailed description of proposed Project components and objectives. **Chapter 3 Impact Analysis**, 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 proposed 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** (MMRP),

provides the proposed mitigation measures, implementation timelines, and the entity/agency responsible for ensuring implementation. **Chapter 5 References**, and **Chapter 6 List of Preparers**.

The CalEEMod Output Files, Biological Resources Evaluation, and Cultural Resources Information are provided as technical **Appendix A**, **Appendix B**, and **Appendix C** respectively, at the end of this document.

The analyses of environmental impacts in **Chapter 3 Impact Analysis** 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 with Mitigation Incorporated. This category applies where the incorporation of mitigation measures would reduce an effect from a “Potentially Significant Impact” to a “Less than Significant Impact.” The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less than Significant Impact. This category is identified when the proposed 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 would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

Chapter 2 Project Description

2.1 Project Background and Objectives

2.1.1 Project Title

Fresno Irrigation District Savory Pond Project

2.1.2 Lead Agency Name and Address

Fresno Irrigation District
2907 South Maple Avenue
Fresno, CA 93725-2218

2.1.3 Contact Person and Phone Number

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CEQA Consultant
Provost & Pritchard Consulting Group
Briza Sholars, Environmental Project Manager
(559) 449-2700

2.1.4 Project Location

The Project is located in southern portion of Fresno County, in central California, approximately 166 miles southeast of Sacramento and 90 miles northwest of Bakersfield (see **Figure 2-1**). The proposed site for the Savory Pond Project is approximately 30 acres and is located north of Lincoln Ave and west of Chestnut Ave on Assessor's Parcel Numbers 334-33-72 and 334-33-74. See **Figure 2-3**.

2.1.5 Latitude and Longitude

The centroid of the Project area is 36.65193 N, -119.73942 W.

2.1.6 General Plan Designation

The General Plan Land Use designation is Agriculture. See **Figure 3-8**.

2.1.7 Zoning

The Zoning designation is AE-20 (Exclusive Agriculture, 20-Acre Minimum) See **Figure 3-9**.

2.1.8 Description of Project

2.1.8.1 District Background

Fresno Irrigation District:

Fresno Irrigation District was formed in 1920 under the California Irrigation Districts Act, as the successor to the privately-owned Fresno Canal and Land Company. The assets of the company consisted of over 800 miles of canals and distribution networks which were constructed between 1850 and 1880 and the extensive water rights on Kings River. The District comprises approximately 245,000 acres within Fresno County, including the Fresno-Clovis metropolitan area, and the District maintains over 700 miles of canals and pipeline facilities.

A significant improvement in the control and management of the waters of Kings River occurred with the completion of the Pine Flat Dam project by the U.S. Army Corps of Engineers in 1954. Although built primarily as a flood control project, the Dam provides significant water conservation benefits stemming from the storage and regulation of irrigation water by the 28 water right entities on Kings River including Fresno Irrigation District. In a normal year, the District diverts approximately 500,000 AF of water and delivers most of it to agricultural users, although an ever-increasing share of the District's water supply is used for groundwater recharge in the urban area.

In addition to its entitlement from Kings River, the District also has 75,000 AF contract for Class II water from the Friant Division of the Central Valley Project. The District's Class II water is typically only available in above normal hydrologic years.

The conversion of agricultural lands to high density urban uses in the expanding Fresno-Clovis metropolitan area has reduced the capacity to utilize surface water. A local overdraft has developed in and around the urban area. The City of Fresno is expanding its surface water treatment capacity to utilize surface water for municipal uses to help correct the groundwater overdraft, but additional recharge facilities in the District are still needed. See **Figure 2-2**.

2.1.8.2 Project Description

The proposed project is for the construction of the FID Savory Pond groundwater basins on approximately 30 acres for the purpose of recharge. Currently the site is developed with a small pond, canal, and several structures. The District's Oleander No. 16 Canal runs through the northern portion of the parcel via a buried reinforced concrete culvert. The site consists of an existing 3.5± acre pond to the north of the existing Oleander No. 16 Canal culvert and approximately 20 acres to the south of the culvert which currently contains a storm drainage pond along with horse stables, small accessory structures, and fencing. Surface water is delivered to the existing pond via an inlet structure with a canal gate and an 18-inch diameter pipeline, located directly upstream of the culvert inlet headwall, to the pond's north corner. The canal also delivers surface water to the 3.5± acre pond via an inlet structure and 24-inch diameter pipeline to the pond's south corner. The inlet structure is located directly downstream of the Oleander No. 16 Canal culvert and utilizes a canal gate and long crested weir with flashboards for diversions.

The proposed Project will consist of up to four cells. The existing 54-inch Oleander No. 16 Canal culvert will remain in place. The northern pond will be used as a sediment settling pond. The existing diversion to the North Basin will be replaced with a larger capacity turnout, and surface water will be diverted into the pond and will be directed to a newly constructed siphon culvert connecting the basins. The culvert will be located near the eastern corner of the existing northern pond, near the upstream culvert structure. The project may include an overpour inlet with a lower gate to drain the basin if necessary. The project may also include a new separate turnout to the proposed south basins and have it separate from the north basin. The proposed project will include drive ramps to all basin floors.

The design flows for recharge will be 50 cfs total. The Oleander No. 16 Canal is currently operated at a maximum flow of 40 cfs for irrigation deliveries, although the canal has the capacity to operate at higher flows.

The basins will not be designed to allow the water levels between the canal and basin to become static. The existing flow meter may need to be replaced with a larger one to accommodate the increase in capacity. The Project inlet from the Oleander No. 16 Canal will consist of an overpour structure (long crested weir) with flash boards and an undershot gate. The overpour structure will provide high water level protection in the event of a gate failure or emergency situation. Water in the basins will not have a means to be diverted back into the canal. All flows in and out of the project will be monitored and controlled through the District's existing SCADA system.

Up to two shallow monitoring wells may be constructed for monitoring groundwater intrusion of the root zone of the surrounding crops. Existing agricultural and nearby District wells will be investigated for use of monitoring groundwater levels.

The Project will include perimeter fencing with District standard wire mesh fence. Drive gates will be placed on the canal bank for access. All improvements will utilize existing PG&E and no new services will be needed.

2.1.8.3 Construction, Operation and Maintenance

Construction of the Project is anticipated to be completed over approximately five months beginning in the winter of 2020 and ending in the spring of 2021. The project parcels will be cleared of vegetation, trees, fencing, structures, and other debris. The Project includes mobilization, site preparation, berm construction surrounding the basin; earthwork and structures replacement; two Project turnout(s), sedimentation weir, and interbasin structures. New berm construction would not exceed six feet, measured from the exterior toe to the top of new berm. The Project may include ponds/cells within the basins separated by berms. After construction completion, performance testing and demobilization would occur. To minimize earthwork, existing berms will be utilized and will remain at existing grade, when possible.

Construction equipment would include a drilling rig (for monitoring wells), excavators, backhoes, graders, skid steers, loaders, and hauling trucks. Generally, construction would occur between the hours of 7 am and 5 pm, Monday through Friday, excluding holidays. Construction would require temporary staging and storage of materials and equipment. Staging areas would be located onsite. Post-construction activities would include system testing, commissioning, and site clean-up. Although construction is not expected to generate hazardous waste, field equipment used during construction has the potential to contain various hazardous materials such as diesel fuel, hydraulic oil, grease, solvents, adhesives, paints, and other petroleum-based products.

Operation and maintenance of the basin would be performed by the District's existing maintenance staff. The basin will operate in a "gravity in" manner, with gravity flow from the turnout to the sedimentation basin and gravity flow from the sedimentation basin to the basin to the south. The existing check structure located downstream of the Lincoln Ave crossing may be utilized to control water levels in Oleander Canal with set high and low points. A 50 cfs siphon will hydraulically connect the basins with an overpour inlet and manually operated control gate. The Project inlet structure will consist of a flow meter, canal gate to open and close as needed for flow regulation, and a concrete weir with flashboards. The structure will have the capacity to divert up to 50 cfs into Savory Pond.

2.1.9 Surrounding Land Uses and Setting

The Project site is surrounded by agricultural lands, which are currently in production. A small residential community borders the project site on the northeastern corner and sparse agriculture structures border the southwest corner. The Oleander No. 16 Canal runs through the northern portion of the parcel via a reinforced concrete culvert. The 30-acre site is located north of E. Lincoln Ave and west of S. Chestnut Ave.

The recharge basins being proposed are located on two parcels, APN 334-330-72 and 74. The Project site is zoned as AE-20 (Exclusive Agriculture, 20-Acre Minimum) and designated Agriculture by the Fresno General Plan. Neighboring properties are also designated AE-20 Exclusive Agriculture.

2.1.10 Other Public Agencies Whose Approval May Be Required

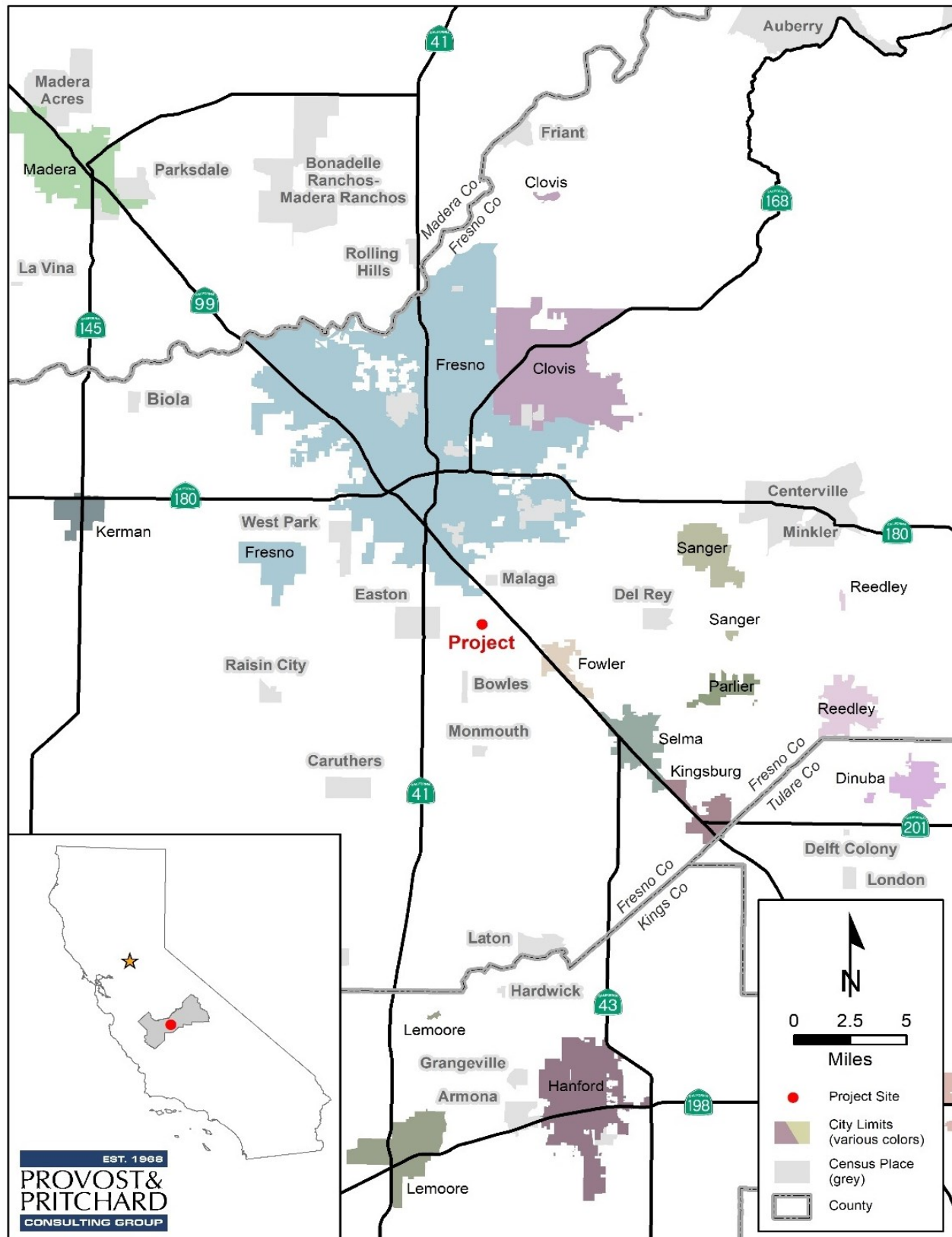
Permits that may be required:

- State Water Resources Control Board – NPDES Construction General Permit
- San Joaquin Valley Air Pollution Control District – Rules and Regulations (Regulation VIII, Rule 9510, Rule 4641)

2.1.11 Consultation with California Native American Tribes

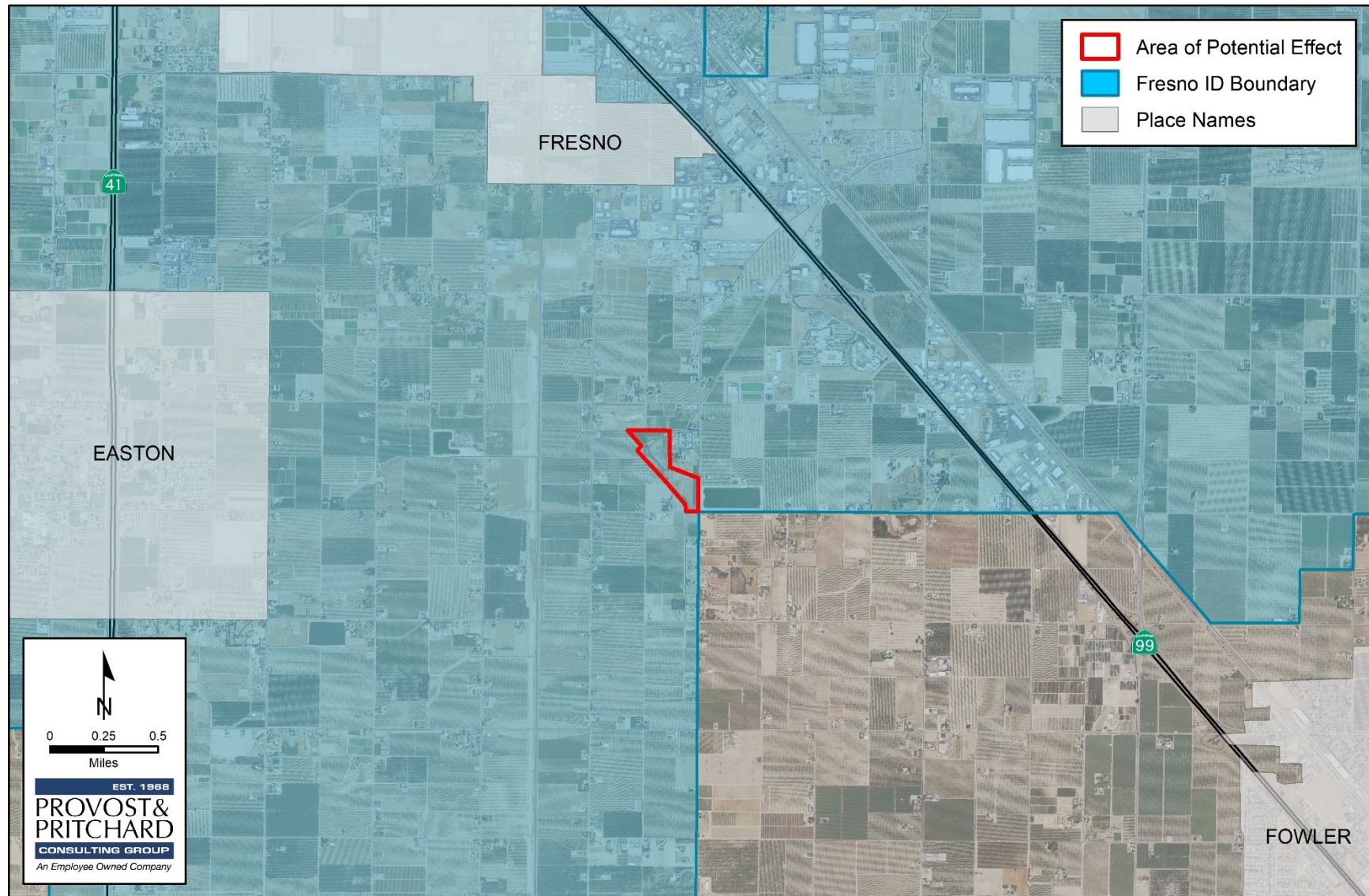
Assembly Bill 52 (AB 52; codified at Public Resources Code Section 21080.3.1, *et seq.*) requires that a lead agency, within 14 days of determining that it would undertake a project, must notify in writing any California Native American Tribe traditionally and culturally affiliated with the geographic area of the project if that Tribe has previously requested notification about projects in that geographic area. The notice must briefly describe the project and inquire whether the Tribe wishes to initiate request formal consultation. Tribes have 30 days from receipt of notification to request formal consultation. The lead agency then has 30 days to initiate the consultation, which then continues until the parties come to an agreement regarding necessary mitigation or agree that no mitigation is needed, or one or both parties determine that negotiation occurred in good faith, but no agreement would be made.

The District has not received any written correspondence from a Tribe pursuant to Public Resources Code Section 21080.3.1 requesting notification of proposed projects. All Tribal correspondence is discussed in further detail in **Sections 3.5 and 3.18 of Chapter 3 Impact Analysis.**



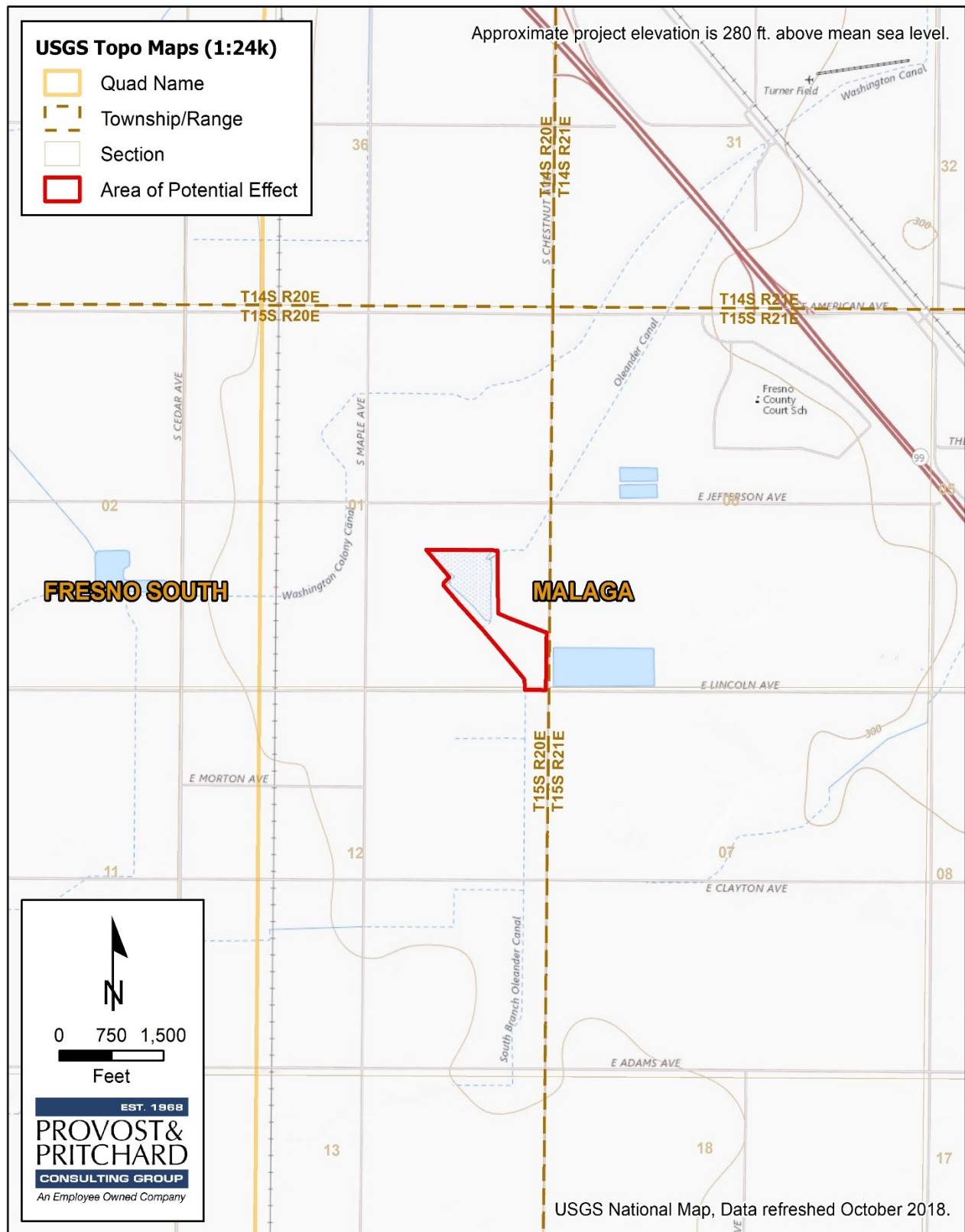
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Figure 2-1. Regional Vicinity Map



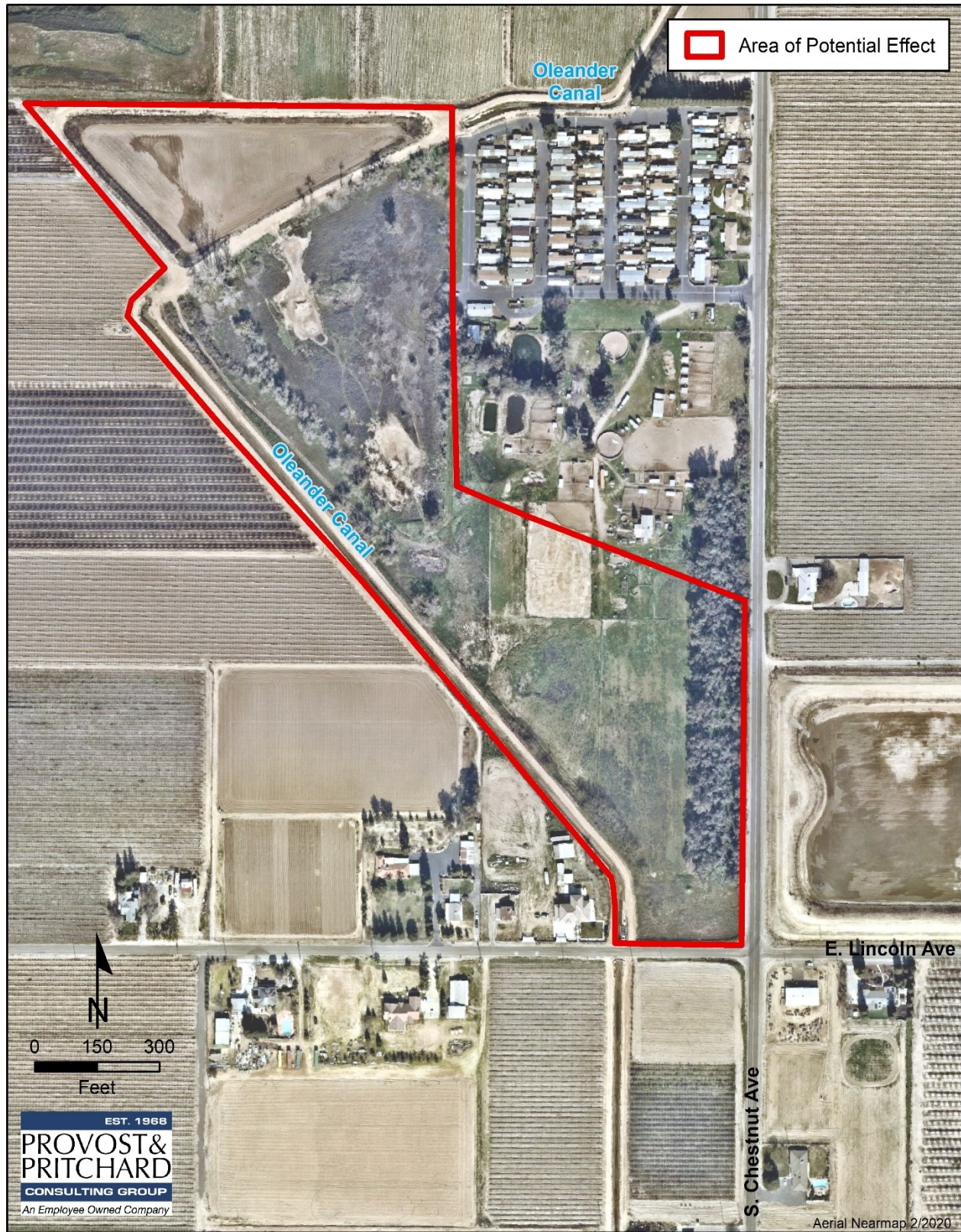
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Figure 2-2. Fresno Irrigation District Boundary Map



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Figure 2-3. Topographic Quadrangle Map



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Figure 2-4. Area of Potential Effect.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and subsequent discussion on the following pages.

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there would 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 would 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.



Signature

8/7/2020

Date

Laurence Kimura / Chief Engineer

Chapter 3 Impact Analysis

3.1 Aesthetics

Table 3-1. Aesthetics Impacts

Aesthetics				
Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.1.1 Environmental Setting

The Project is located in the southern portion of Fresno County in the Central San Joaquin Valley. Lands in the vicinity consist of relatively flat irrigated farmlands and rural residences and accessory structures. Agricultural practices in the vicinity consist of row crop and orchard cultivation. In Fresno County, a portion of State Route 180 (SR 180) has been officially identified by Caltrans as a “designated State Scenic Highway;” however, that segment is approximately 10 miles northeast of the site. The Project site is located approximately 47-miles east of the Coastal Range and approximately 14-miles west of the foothills of the Sierra Nevada. Neither of these foothills or mountain ranges are typically visible from the vantage point of the Project site. Rural roadways and local water distribution canals are in the immediate vicinity. The proposed Project would be consistent with the aesthetics of the area.

3.1.2 Impact Assessment

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

Less than Significant Impact. The primary scenic vista in the region is the Sierra Nevada foothills to the east. The Project would not interfere with public views of the Sierra Nevada foothills during construction or operation as all Project related activity would be restricted to the Project site (**Figure 2-1**) Furthermore, the Project site does not stand out from its surroundings in any remarkable fashion. Impacts would be less than significant.

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

No Impact. The Scenic Highway Program¹ was created to preserve and protect scenic highway corridors from change would diminish the aesthetic value of lands adjacent to highways. A highway may be officially designated “scenic” depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler’s enjoyment of the view.

In Fresno County, a 24-mile segment of SR 180 located in southeastern Fresno County has been officially identified by Caltrans as “designated State Scenic Highway”. However, the Project site is located approximately ten miles southwest and Project activities would not have the potential to affect the scenic highway. There would be no impact.

c) Would the project, 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 other regulations governing scenic quality?

Less than Significant Impact. The Project site is primarily surrounded by agricultural uses and irrigation infrastructure in a non-urbanized setting. The current visual character of the Project site consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20-acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing which will be removed as part of the project. The implementation of the proposed basins would not substantially affect the visual characteristics of the area. Additionally, the Project does not conflict with the onsite zoning designation. Impacts would be less than significant.

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. The Project area is primarily surrounded by agriculture and rural residential uses and irrigation infrastructure. Lighting impacts would be negligible because construction would be required to occur during the hours of 6:00 am to 9:00 pm on any day except Saturday or Sunday or before 7:00 am to 5:00 pm on Saturday and Sunday.² Furthermore, if lighting were to occur, it would be directed downward and hooded to minimize light and glare on adjacent properties and roadways. Additional vehicular traffic after construction would be limited to operation and maintenance on an as-needed basis which would be performed during daylight hours, except in an unforeseen emergency situation. Therefore, the Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area or be inconsistent with existing conditions

¹ (State of California Legislative Information, 2020) Accessed May 15, 2020.

² (Fresno County California Code of Ordinances , 1978) Accessed May 15, 2020

3.2 Agriculture and Forestry Resources

Table 3-2. Agriculture and Forestry Resources Impacts

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

3.2.1 Environmental Setting

The proposed Project is located in the California's Central San Joaquin Valley. Specifically, within an unincorporated area in Fresno County. Fresno County is located within California's agricultural heartland. According to the California County's Agricultural Commissioners' Report for the 2017-2018 crop year, Fresno County is the leading county with an agricultural production value of \$7.91 billion, an increase of 12.6 percent from the 2017 value.³

A wide range of commodities are grown in the county, with major production of milk, poultry, livestock, and other animal commodities, row crops, nuts and fruit tree crops, and vegetables. Rich soil, irrigation water, Mediterranean climate and steady access to local, national and global markets make this possible.

³ (United States Department of Agriculture National Agricultural Statistics Service, 2020) Accessed May 15, 2020

3.2.2 Impact Assessment

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?

Less than Significant Impact. The Farmland Mapping and Monitoring Program⁴ produces maps and statistical data used for analyzing impacts to California's agriculture resources. These maps are updated on a biennial basis with the use of a computer mapping system, aerial imagery, public review, and field reconnaissance. The farmland maps identify eight land use categories, five of which are agriculture related: prime agriculture, farmland of statewide importance, unique farmland, farmland of local importance, and grazing land. The land use categories onsite and in the proximity of the Project are summarized below:

- *FARMLAND OF STATEWIDE IMPORTANCE (S): Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.*
- *FARMLAND OF LOCAL IMPORTANCE (L): Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.*
- *PRIME FARMLAND (P): Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.*
- *SEMI-AGRICULTURAL AND RURAL COMMERCIAL (sAC): Farmsteads, agricultural storage and packing sheds, unpaved parking areas, composting facilities, equine facilities, firewood lots, and campgrounds.*
- *UNIQUE FARMLAND (U): Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.*
- *URBAN AND BUILT-UP FARMLAND (D): Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.*
- *RURAL RESIDENTIAL (R): Residential areas of 1 to 5 structures per 10 acres ('ranchettes').*

As demonstrated in **Figure 3-1**, the FMMP for Fresno County designates the site of the Project as Farmland of Local Importance. Implementation of the basin project would help meet existing agriculture irrigation demands during the irrigation season when limited surface water is available, especially during times of a drought. Properties immediately to the north of the Project are considered Urban and Built-Up land, with Prime Farmland to the north of that area. East of the Project is considered Urban and Built-Up Land, Prime Farmland and Farmland of Local Importance. South is considered Farmland of Local Importance, Prime Farmland, and Farmland of State Importance. Lastly, West of the Project is considered Prime Farmland and Rural Residential (See **Figure 3-1**). The site has been zoned AE-20 (Exclusive Agriculture, 20-acre minimum) and designated for Agriculture uses by the Fresno County General Plan. The impact would be less than significant.

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

Less than Significant Impact. The Project site and adjacent lands are zoned AE-20 (Exclusive Agriculture, 20-acre minimum). The Project area consists of two parcels, totaling approximately 30-acres. Neither of the two parcels or the adjacent lands are under a Williamson Act contract. The Project involves the construction of recharge basins. Water recharge basins are consistent with Agricultural zoning. Implementation of the

⁴ (California Department of Conservation, 1984) Accessed May 18, 2020

Project would not result in a conflict with existing zoning for the AE-20 zone district or with a Williamson Act contract. Impacts would be less than significant.

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?

No Impact. There are no forest lands or timberlands within the Project site or vicinity. There would be no impact.

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?

e) No Impact. The Project involves the development of approximately 24-acres of groundwater basins, among related infrastructure, on two existing parcels. The Project would not result in land use conversion of farmland or forest land, either directly or indirectly. There would be no impact.

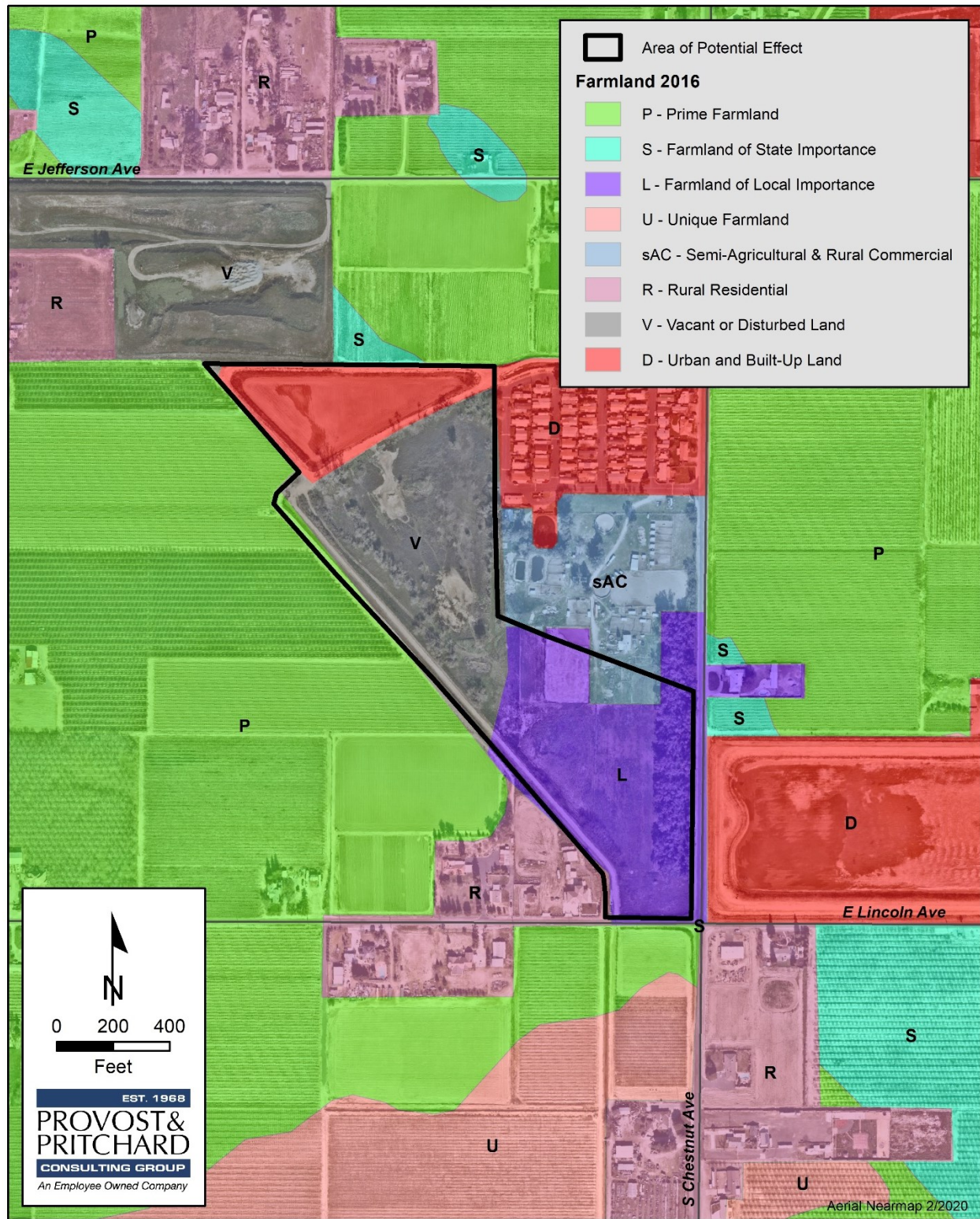


Figure 3-1. Farmland Designation Map

3.3 Air Quality

Table 3-3. Air Quality Impacts

Air Quality				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.3.1 Environmental Setting

The Project lies within the eight-county San Joaquin Valley Air Basin (SJVAB), which is managed by the San Joaquin Valley Air Pollution Control District (SJVAPCD). Air quality in the SJVAB is influenced by a variety of factors, including topography, local and regional meteorology. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), particulate matter (PM₁₀ and PM_{2.5}), and lead (Pb). The CAAQS also set standards for sulfates (SO₄), hydrogen sulfide (H₂S), vinyl chloride (C₂H₃Cl) and visibility.

Air quality plans or attainment plans are used to bring the applicable air basin into attainment with all State and Federal ambient air quality standards designed to protect the health and safety of residents within that air basin. Areas are classified under the Federal Clean Air Act as either “attainment”, “nonattainment”, or “extreme nonattainment” areas for each criteria pollutant based on whether the NAAQS have been achieved or not. Attainment relative to the State standards is determined by the California Air Resources Board (CARB). The San Joaquin Valley is designated as a State and Federal nonattainment area for O₃, a State and Federal nonattainment area for PM_{2.5}, a State nonattainment area for PM₁₀, a Federal and State attainment area for CO, SO₂, and NO₂, and a State attainment area for sulfates, vinyl chloride and Pb⁵.

3.3.2 Methodology

An Air Quality and Greenhouse Gas Emissions Evaluation Report ([Appendix A](#)) was prepared using CalEEMod, Version 2016.3.2 for the Project in May 2020. The sections below detail the methodology of the air quality and greenhouse gas emissions report and its conclusions.

⁵ (San Joaquin Valley Air Pollution Control District, 2006-2012) Accessed May 8, 2020..

3.3.2.1 Short-Term Construction-Generated Emissions

Short-term construction emissions associated with the Project were calculated using CalEEMod, Version 2016.3.2. The emissions modeling includes emissions generated by off-road equipment and worker commute trips. Emissions were quantified based on anticipated construction schedules and truck hauling trips provided by the Project applicant. All remaining assumptions were based on the default parameters contained in the model. Localized air quality impacts associated with the Project would be minor and were qualitatively assessed. Modeling assumptions and output files are included in [Appendix A](#).

3.3.2.2 Long-Term Operational Emissions

Long-term operational emissions associated with the Project are estimated to be minimal in nature. Maintenance would be provided on an as needed basis by FID staff, and the operational equipment, such as an electric powered gate, would result in negligible emissions. The Project does not propose the use of any diesel-powered equipment. Modeling assumptions and output files are included in [Appendix A](#).

3.3.2.3 Thresholds of Significance

To assist local jurisdictions in the evaluation of air quality impacts, the SJVAPCD has published the *Guide for Assessing and Mitigating Air Quality Impacts*. This guidance document includes recommended thresholds of significance to be used for the evaluation of short-term construction, long-term operational, odor, toxic air contaminant, and cumulative air quality impacts. Accordingly, the SJVAPCD-recommended thresholds of significance are used to determine whether implementation of the Project would result in a significant air quality impact. Projects that exceed these recommended thresholds would be considered to have a potentially significant impact to human health and welfare. The thresholds of significance are summarized, as follows:

Short-Term Emissions of Particulate Matter (PM₁₀): Construction impacts associated with the proposed Project would be considered significant if the feasible control measures for construction in compliance with Regulation VIII as listed in the SJVAPCD guidelines are not incorporated or implemented, or if project-generated emissions would exceed 15 tons per year (TPY).

Short-Term Emissions of Ozone Precursors (ROG and NO_x): Construction impacts associated with the proposed Project would be considered significant if the project generates emissions of Reactive Organic Gases (ROG) or NO_x that exceeds 10 TPY.

Long-Term Emissions of Particulate Matter (PM₁₀): Operational impacts associated with the proposed Project would be considered significant if the project generates emissions of PM₁₀ that exceed 15 TPY.

Long-Term Emissions of Ozone Precursors (ROG and NO_x): Operational impacts associated with the proposed Project would be considered significant if the project generates emissions of ROG or NO_x that exceeds 10 TPY.

Conflict with or Obstruct Implementation of Applicable Air Quality Plan: Due to the region's nonattainment status for ozone, PM_{2.5}, and PM₁₀, if the project-generated emissions of either of the ozone precursor pollutants (i.e., ROG and NO_x) or PM₁₀ would exceed the SJVAPCD's significance thresholds, then the project would be considered to conflict with the attainment plans. In addition, if the project would result in a change in land use and corresponding increases in vehicle miles traveled, the project may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

Local Mobile-Source CO Concentrations: Local mobile source impacts associated with the Project would be considered significant if the project contributes to CO concentrations at receptor locations in excess of the CAAQS (i.e. 9.0 ppm for 8 hours or 20 ppm for 1 hour).

Exposure to toxic air contaminants (TAC) would be considered significant if the probability of contracting cancer for the Maximally Exposed Individual (i.e., maximum individual risk) would exceed 10 in 1 million or would result in a Hazard Index greater than 1.

Odor impacts associated with the Project would be considered significant if the project has the potential to frequently expose members of the public to objectionable odors.

Table 3-4. Summary of Ambient Air Quality Standards and Attainment Designation

Summary of Ambient Air Quality Standards & Attainment Designation					
Pollutant	Averaging Time	California Standards*		National Standards*	
		Concentration*	Attainment Status	Primary	Attainment Status
Ozone (O ₃)	1-hour	0.09 ppm	Nonattainment/ Severe	–	No Federal Standard
	8-hour	0.070 ppm	Nonattainment	0.075 ppm	Nonattainment (Extreme)**
Particulate Matter (PM ₁₀)	AAM	20 µg/m ³	Nonattainment	–	Attainment
	24-hour	50 µg/m ³		150 µg/m ³	
Fine Particulate Matter (PM _{2.5})	AAM	12 µg/m ³	Nonattainment	12 µg/m ³	Nonattainment
	24-hour	No Standard		35 µg/m ³	
Carbon Monoxide (CO)	1-hour	20 ppm	Attainment/ Unclassified	35 ppm	Attainment/ Unclassified
	8-hour	9 ppm		9 ppm	
	8-hour (Lake Tahoe)	6 ppm		–	
Nitrogen Dioxide (NO ₂)	AAM	0.030 ppm	Attainment	53 ppb	Attainment/ Unclassified
	1-hour	0.18 ppm		100 ppb	
Sulfur Dioxide (SO ₂)	AAM	–	Attainment	--	Attainment/ Unclassified
	24-hour	0.04 ppm		--	
	3-hour	–		0.5 ppm	
	1-hour	0.25 ppm		75 ppb	
Lead (Pb)	30-day Average	1.5 µg/m ³	Attainment	–	No Designation/ Classification
	Calendar Quarter	–		–	
	Rolling 3-Month Average	–		0.15 µg/m ³	
Sulfates (SO ₄)	24-hour	25 µg/m ³	Attainment	No Federal Standards	
Hydrogen Sulfide (H ₂ S)	1-hour	0.03 ppm (42 µg/m ³)	Unclassified		
Vinyl Chloride (C ₂ H ₃ Cl)	24-hour	0.01 ppm (26 µg/m ³)	Attainment		

Summary of Ambient Air Quality Standards & Attainment Designation					
Pollutant	Averaging Time	California Standards*		National Standards*	
		Concentration*	Attainment Status	Primary	Attainment Status
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient: 0.23/km-visibility of 10 miles or more due to particles when the relative humidity is less than 70%.	Unclassified		

* For more information on standards visit: <http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>

** No Federal 1-hour standard. Reclassified extreme nonattainment for the Federal 8-hour standard May 5, 2010.

***Secondary Standard

Source: CARB 2016; SJVAPCD 2019

San Joaquin Valley Air Pollution Control District: The SJVAPCD is the agency primarily responsible for ensuring that NAAQS and CAAQS are not exceeded and that air quality conditions are maintained in the SJVAB, within which the proposed Project is located. Responsibilities of the SJVAPCD include, but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the CAA and the CCAA.

The SJVAPCD Rules and Regulations that are applicable to the proposed Project include, but are not limited to, the following:

Regulation VIII (Fugitive Dust Prohibitions), Regulation VIII (Rules 8011-8081): This regulation is a series of rules designed to reduce particulate emissions generated by human activity, including construction and demolition activities, carryout and trackout, paved and unpaved roads, bulk material handling and storage, unpaved vehicle/traffic areas, open space areas, etc. If a non-residential area is 5.0 or more acres in area, a Dust Control Plan must be submitted as specified in Section 6.3.1 of Rule 8021. Additional requirements may apply, depending on total area of disturbance.

San Joaquin Valley Air Pollution Control District Thresholds of Significance. Projects that produce emissions that exceed the following thresholds shall be considered significant for a project level and/or cumulatively considerable impact to air quality. The following thresholds are defined for purposes of determining cumulative effects as the baseline for “considerable”. Projects located within the SJVAPCD would be subject to the significance thresholds identified in section 3.3.2.3 above.

3.3.3 Impact Assessment

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

No Impact. As noted in Impact Assessments b and c below, implementation of the Project would not result in short-term or long-term increases in emissions that would exceed applicable thresholds of significance. Projects that do not exceed the recommended thresholds would not be considered to conflict with or obstruct the implementation of applicable air quality plans.

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?

Less than Significant Impact.

Short-Term Construction-Generated Emissions

Construction-generated emissions are temporary in duration, lasting approximately 5 months for site preparation and construction of the Project. Project development includes mobilization, site preparation, berm construction surrounding the basins, earthwork, structures replacement, and other associated infrastructure. The construction of the Project would result in the temporary generation of emissions associated with site grading and excavation, motor vehicle exhaust associated with construction equipment and worker trips, as well as the movement of construction equipment on unpaved surfaces.

Estimated construction-generated emissions and operational emissions are summarized in **Table 3-5** and **Table 3-6**, respectively.

Table 3-5. Unmitigated Short-Term Construction-Generated Emissions of Criteria Air Pollutants

Short-Term Construction-Generated Emissions of Criteria Air Pollutants					
Source	Annual Emissions (Tons/Year) ⁽¹⁾				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
2020	0.1059	1.0760	0.6505	0.3156	0.1661
2021	0.1063	1.1325	0.8750	0.2329	0.1189
Maximum Annual Proposed Project Emissions:	0.1063	1.1325	0.8750	0.3156	0.1661
SJVAPCD Significance Thresholds:	10	10	100	15	15
Exceed SJVAPCD Thresholds?	No	No	No	No	No

1. Emissions were quantified using CalEEMod Output Files Version 2016.3.2. Refer to Appendix A for modeling results and assumptions. Totals may not sum due to rounding.

Table 3-6. Unmitigated Long-Term Operational Emissions

Long-Term Operational Emissions of Criteria Air Pollutants					
Source	Annual Emissions (Tons/Year) ⁽¹⁾				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Maximum Annual Project Emissions:	0.1118	0.0000	0.0002	0.0000	0.0000
SJVAPCD Significance Thresholds:	10	10	100	15	15
Exceed SJVAPCD Thresholds?	No	No	No	No	No

1. Emissions were quantified using CalEEMod Output Files Version 2016.3.2. Refer to Appendix A for modeling results and assumptions. Totals may not sum due to rounding.

It is important to note that the Project would be required to comply with SJVAPCD Regulation VIII (Fugitive PM₁₀ Prohibitions). Mandatory compliance with SJVAPCD Regulation VIII would further reduce emissions of fugitive dust from the Project site, and adequately minimize the Project's potential to adversely affect nearby sensitive receptors to localized PM impacts.

Given that project-generated emissions would not exceed applicable SJVAPCD significance thresholds and the proposed Project would be required to comply with SJVAPCD Regulation VIII, construction-generated emissions of criteria pollutants would be considered less than significant.

Long-Term Operational Emissions

Long-term operational emissions associated with the Project would be minimal. Maintenance would be provided on an as needed basis and the operational equipment, such as the use of an electric gate, would result in negligible emissions. Therefore, Project-related impacts to air quality would be considered less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact.

Toxic Air Contaminants

Implementation of the Project would not result in the long-term operation of any major onsite stationary sources of TACs, nor would Project implementation result in a substantial increase in vehicle trips along area roadways, in comparison to existing conditions. However, construction of the Project may result in temporary increases in emissions of diesel-exhaust particulate matter (DPM) associated with the use of off-road diesel equipment. More than 90% of DPM is less than one μm in diameter, and thus is a subset of $\text{PM}_{2.5}$.⁶ Health-related risks associated with diesel-exhaust emissions are primarily associated with long-term exposure and associated risk of contracting cancer. As such, the calculation of cancer risk associated with exposure to TACs are typically calculated based on a long-term (e.g., 70-year) period of exposure. The use of diesel-powered construction equipment, however, would be temporary and episodic. Construction activities would occur over an approximate 12-month period, which would constitute approximately 1 percent of the typical 70-year exposure period. As a result, exposure to construction-generated DPM would not be anticipated to exceed applicable thresholds (i.e. incremental increase in cancer risk of 10 in one million).

The Project is located in the unincorporated area of Fresno County. Nearby land uses primarily consist of agriculture with a mobile home park adjacent to the proposed Project site. Construction of the Project is not anticipated to result in a substantial increase in DPM or other TACs. As indicated in **Table 3-5**, construction of the Project would generate maximum unmitigated annual emissions of approximately 0.1661 tons/year of $\text{PM}_{2.5}$, which includes DPM. Operational impacts would be negligible due to the lack of combustible engines associated with the operational of the Project. Operation of the Project would generate maximum unmitigated annual emissions of approximately 0.0 tons/year of $\text{PM}_{2.5}$, as illustrated in **Table 3-6**. Project-related impacts to sensitive receptors would be less than significant.

Naturally Occurring Asbestos

Naturally-occurring asbestos, which was identified by CARB as a TAC in 1986, is located in many parts of California and is commonly associated with ultramafic rock. The Project site is not located near any areas that are likely to contain ultramafic rock⁷. As a result, risk of exposure to asbestos during the construction process would be considered less than significant.

Fugitive Dust

Construction of the Project would include ground-disturbing activities which could result in increased emissions of airborne particulate matter. The Project would be required to comply with SJVAPCD Regulation VIII (Fugitive PM_{10} Prohibitions). Mandatory compliance with SJVAPCD Regulation VIII would reduce emissions of fugitive dust from the Project site.

⁶ (State of California Air Resources Board, 2020) Accessed May 8, 2020.

⁷ (United States Department of the Interior, Geological Survey, 2011) Map Sheet 59, Accessed May 8, 2020.

The Project is located within the unincorporated Fresno County. Construction of the Project is not anticipated to result in a substantial increase in particulate matter. As indicated in **Table 3-5** and **Table 3-6**, respectively, construction of the Project would generate maximum unmitigated annual emissions of approximately 0.0534 tons/year of PM₁₀, while operation of the Project would generate maximum unmitigated annual emissions of approximately 0.0 tons/year of PM₁₀, both of which are substantially less than SJVAPCD's threshold of significance of 15 tons/year. Project-related impacts to sensitive receptors would be less than significant.

d) Would the project result in other emissions (such as those leading to odors adversely affecting a substantial number of people?)

Less than Significant Impact. Implementation of the Project would not result in long-term emissions of odors. However, construction would involve the use of a variety of gasoline- or diesel-powered equipment that would emit exhaust fumes. Exhaust fumes, particularly diesel exhaust, may be considered objectionable by some people. The Project is located within an area dominated by agricultural production, which includes the use of diesel-powered equipment and various odorous chemicals on a regular basis. Construction activities would be short-term in nature. Conditions created by Project-related activities would not vary substantially from the baseline conditions routinely experienced onsite and in the vicinity. Impacts would be less than significant.

3.4 Biological Resources

Table 3-7. Biological Resources Impacts

Biological Resources				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	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 Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.4.1 Environmental Setting

The Project site is located in southern Fresno County within the lower San Joaquin Valley, part of the Great Valley of California. The Valley is bordered by the Sierra Nevada Mountain Ranges to the east, the Coast Ranges to the west, the Klamath Mountains and Cascade Range to the north, and the Transverse Ranges and Mojave Desert to the south.

Like most of California, the San Joaquin Valley experiences a Mediterranean climate. Warm, dry summers are followed by cool, moist winters. Summer temperatures often reach above 90 degrees Fahrenheit, and the humidity is generally low. Winter temperatures are often below 60 degrees Fahrenheit during the day and rarely

exceed 70 degrees. On average, the Central Valley receives approximately 10 inches of precipitation in the form of rainfall yearly, most of which occurs between October and March.

The entire Project site lies within Oleander Canal-Fish Slough sub-watershed; Hydrologic Unit Code (HUC): 180300090505, part of the Dog Creek-Fish Slough watershed; HUC: 1803000905. The principal drainage in the vicinity is Oleander Canal, which runs along the northwest edge of the Project site. Additional photographs of the Project areas and vicinity are available in **Appendix B**.

The biotic habitats/land uses in and around the project area consist of: rural residences, a mobile home park, agricultural fields, ruderal, agricultural basin, and canal. Images of the proposed Project area can be seen in **Appendix B**.



Figure 3-2. Site Photo No. 1



Figure 3-3. Site Photo No. 2



Figure 3-4. Oleander Canal Photo No. 1



Figure 3-5. Oleander Canal Photo No. 2

3.4.2 Methodology

A reconnaissance-level field survey of the Project sites and surrounding areas was conducted on May 26, 2020.. The survey consisted of walking through the Project areas while identifying and noting land uses, biological habitats and communities, and plant and animal species encountered. Furthermore, the site and surrounding areas were assessed for suitable habitats of various wildlife species.

An analysis of potential Project-related impacts to biological resources was conducted based on the resources known to exist or with potential to exist within the Project site and surrounding areas. Sources of information used in preparation of this analysis included: the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB); the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) system; the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Vascular Plants of California; CalFlora's online database of California native plants; the Jepson Herbarium online database (Jepson eFlora); USFWS Environmental Conservation Online System (ECOS); the NatureServe Explorer online database; the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Plants Database; the CDFW California Wildlife Habitat Relationships (CWHR) database; the California Herps online database; and various manuals, reports, and references related to plants and animals of the San Joaquin Valley region.

The field investigation did not include a wetland delineation or focused surveys for special status species. The field survey conducted included an appropriate level of detail to assess the significance of potential impacts to sensitive biological resources resulting from the Project. Furthermore, the field survey was sufficient to generally describe those features of the Project that could be subject to the jurisdiction of federal and/or State agencies, such as the U.S. Army Corps of Engineers (USACE), CDFW, and the Regional Water Quality Control Board (RWQCB). Following the field survey and research a technical report was prepared. Much of the information in this section of the IS/MND is directly from the Biological Resources Evaluation. The full Biological Resources Evaluation can be found in **Appendix B**.

3.4.3 Impact Assessment

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 Wildlife or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated. California contains several rare plant and animal species. In this context, "rare" is defined as species known to have low populations or limited distributions. As the human population grows, resulting in urban expansion which encroaches on the already limited suitable habitat, these sensitive species become increasingly more vulnerable to extirpation. State and Federal regulations have provided the CDFW and the USFWS with a mechanism for conserving and protecting the diversity of plant and animal species native to California. Numerous native plants and animals have been formally designated as "threatened" or "endangered" under state and federal endangered species legislation. Other formal designations include "candidate" for listing or "species of special concern" by CDFW. The CNPS has its list of native plants considered rare, threatened, or endangered. Collectively these plants and animals are referred to as "special status species." A thorough search of the CNDDB for published accounts of special status plant and animal species was conducted for the *Malaga* 7.5-minute quadrangle that contains the Project site in its entirety, and for the eight surrounding quadrangles: *Clavis*, *Fresno North*, *Fresno South*, *Selma*, *Round Mountain*, *Sanger*, *Caruthers*, and *Conejo*. These species, and their potential to occur within the Project area are listed in **Table 3-8** and **Table 3-9** on the following pages.

Table 3-8. Special Status Animals with Potential to Occur Onsite or in the Vicinity

Species	Status	Habitat	Occurrence on Project Site
American badger <i>(Taxidea taxus)</i>	CSC	Grasslands, savannas, and mountain meadows near timberline are preferred. Most abundant in drier open spaces of shrub and grassland. Burrows in soil.	Unlikely. Habitats of the Project area are considered marginal, at best, for this species. A small area (approximately 10 acres) of non-native rangeland pasture was present; burrows of suitable dimensions and an adequate prey base of ground squirrels was observed. However, a fragmented 10-acre patch of habitat is not large enough to support a population of American badgers, and the site is bordered by intensively cultivated agricultural lands and high-cost corridors which would presumably create a sink in the unlikely event that a transient individual were to occupy the site.
burrowing owl (<i>Athene cunicularia</i>)	CSC	Resides in open, dry annual or perennial grasslands, deserts, and scrublands with low growing vegetation. Nests underground in existing burrows created by mammals, most often ground squirrels.	Unlikely. The presence of large trees and raptors makes the Project area generally unsuitable for this species.
California glossy snake <i>(Arizona elegans occidentalis)</i>	CSC	Inhabits arid scrub, rocky washes, grasslands, and chaparral. Prefers open areas with loose soil for easy burrowing.	Absent. The Project area is outside of the known geographic range of this species. The only recorded occurrences in the vicinity correspond to historical collections made in 1893 and 1939.
California tiger salamander <i>(Ambystoma californiense)</i>	FT, CT, CWL	Requires vernal pools or seasonal ponds for breeding and small mammal burrows for aestivation. Generally found in grassland and oak savannah plant communities in central California from sea level to 1500 feet in elevation.	Unlikely. The Project is located within the historic and current range of this species. Rodent burrows and grassland pasture, which could potentially serve as upland habitat, are present onsite. However, typical vernal pool habitat was not observed within Project areas or surrounding lands. While this species could potentially breed within seasonal pools, ponds, and tire depressions along the canal banks, the presence of bullfrogs, an apex predator, further reduces the quality of the habitat.
coast horned lizard <i>(Phrynosoma blainvillii)</i>	CSC	Found in grasslands, coniferous forests, woodlands, and chaparral, primarily in open areas with patches of loose, sandy soil and low-lying vegetation in valleys, foothills, and semi-arid mountains. Frequently found near ant hills and along dirt roads in lowlands along sandy washes with scattered shrubs.	Absent. Suitable habitat for this species is absent from the Project area.

Chapter Three: Impact Analysis
Fresno Irrigation District Savory Pond Project

Species	Status	Habitat	Occurrence on Project Site
Crotch bumble bee (<i>Bombus crotchii</i>)	CCE	Occurs throughout coastal California, as well as east to the Sierra-Cascade crest, and south in to Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Unlikely. Although the Project is located within the historical range of this species, vegetative cover is dominated by weedy, non-native plants. Furthermore, the ongoing use of commercial honeybees, herbicides, and pesticides in adjacent agricultural lands makes the Project area unsuitable for native pollinators.
double-crested cormorant (<i>Phalacrocorax auratus</i>)	CWL	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	Possible. This adaptable species could potentially nest within trees or on the ground around the existing basins within the APE.
Fresno kangaroo rat (<i>Dipodomys nitratoideus exilis</i>)	FE, CE	An inhabitant of alkali sink open grassland environments in western Fresno County. Prefers bare, alkaline, clay-based soils subject to seasonal inundation with more friable soil mounds around shrubs and grasses.	Unlikely. Habitats of the Project area are considered marginal, at best for this species. No kangaroo rat sign (tracks, precincts, mounds, or haystacks) were observed during the biological survey. The only recorded occurrences of this species in the vicinity of the Project are historic collection records from an unknown location near Fresno over 100 years ago. The status of this observation has since been updated to "extirpated".
least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE, CE	Breeding habitat consists of dense, low, shrubby, riparian vegetation in the vicinity of water or dry river bottoms.	Unlikely. Habitats of the Project area are considered marginal, at best for this species. The only recorded occurrences in the vicinity of the Project are historic collection records from an unknown location near Clovis over 100 years ago. The status of this observation has since been updated to "possibly extirpated", which means the species has been searched for but unobserved for many years.
northern California legless lizard (<i>Anniella pulchra</i>)	CSC	Found primarily underground, burrowing in loose, sandy soil. Forages in loose soil and leaf litter during the day. Occasionally observed on the surface at dusk and night.	Unlikely. Habitats of the Project area are marginal, at best for this species. The only recorded observation of this species in the vicinity corresponds to a historic collection from the late 1800s.
pallid bat (<i>Antrozous pallidus</i>)	CSC	Found in grasslands, chaparral, and woodlands, where it feeds on ground- and vegetation-dwelling arthropods, and occasionally takes insects in flight. Prefers to roost in rock crevices, but may also use tree cavities, caves, bridges, and other man-made structures.	Unlikely. Suitable roosting habitat is absent from the Project site and surrounding lands. At most, this species could forage over the site nocturnally.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FE, CT	Underground dens with multiple entrances in alkali sink, valley grassland, and woodland in valleys and adjacent foothills.	Unlikely. Habitats of the Project area are considered marginal, at best for this species. A small area (approximately 10 acres) of non-native rangeland pasture was present; burrows of suitable dimensions and an adequate prey base of ground squirrels was observed. However, a fragmented 10-acre patch of habitat is not large enough to support a population of kit foxes, and the site is bordered by intensively cultivated agricultural lands and high-cost corridors which would presumably create a sink in the

Species	Status	Habitat	Occurrence on Project Site
			unlikely event that a transient individual were to occupy the site. The Project is located approximately 50 miles east of the nearest known core population in Ciervo-Panoche Natural Area. Although some populations of San Joaquin kit fox in other parts of California have adapted to an urbanized environment, modern kit fox occurrences are locally scarce. There have been no recorded observations of this species in the vicinity in more than 30 years.
Swainson's hawk (<i>Buteo swainsoni</i>)	CT	Nests in large trees in open areas adjacent to grasslands, grain or alfalfa fields, or livestock pastures suitable for supporting rodent populations.	Present. The Project area contains suitable nest trees, perches, and an adequate prey base. One Swainson's hawk individual was observed onsite at the time of the biological survey, and there are known nest trees within 1.5 miles of the site.
tricolored blackbird (<i>Agelaius tricolor</i>)	CT, CSC	Nests colonially near fresh water in dense cattails or tules, or in thickets of riparian shrubs. Forages in grassland and cropland. Large colonies are often found on dairy farm forage fields.	Unlikely. Suitable nesting habitat was not observed onsite or within adjacent lands at the time of the field survey. At most, this species could potentially nest within triticale or alfalfa fields in the vicinity and forage over the grassland or basins onsite.
valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT	Lives in mature elderberry shrubs of the Central Valley and foothills. Adults are active March to July.	Absent. Suitable elderberry habitat is absent from the project area.
vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT	Occupies vernal pools, clear to tea-colored water, in grass or mud-bottomed swales, and basalt depression pools.	Absent. Suitable vernal pool habitat is absent from the Project area.
western mastiff bat (<i>Eumops perotis californicus</i>)	CSC	Found in open, arid to semi-arid habitats, including dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas, where it feeds on insects in flight. Roosts most commonly in crevices in cliff faces, but may also use high buildings and tunnels.	Unlikely. Suitable roosting habitat is absent from the Project site and surrounding lands. At most, this species could forage over the site nocturnally.
western pond turtle (<i>Emys marmorata</i>)	CSC	An aquatic turtle of ponds, marshes, slow-moving rivers, streams, and irrigation ditches with riparian vegetation. Requires adequate basking sites and sandy banks or grassy open fields to deposit eggs.	Unlikely. Habitats of the Project area are considered marginal, at best for this species. The nearest recorded occurrence of this species was reported approximately 15 miles north-northeast of the Project site.

Species	Status	Habitat	Occurrence on Project Site
western spadefoot <i>(Spea hammondi)</i>	CSC	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Vernal pools or temporary wetlands, lasting a minimum of three weeks, which do not contain bullfrogs, fish, or crayfish are necessary for breeding.	Unlikely. The Project is located within the historic and current range of this species. Rodent burrows and grassland pasture, which could potentially serve as upland habitat, are present onsite. However, typical vernal pool habitat was not observed within Project areas or surrounding lands. While this species could potentially breed within seasonal pools, ponds, and tire depressions along the canal banks, the presence of bullfrogs, an apex predator, further reduces the quality of the habitat.
western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	FT, CE	Suitable nesting habitat in California includes dense riparian willow-cottonwood and mesquite habitats along a perennial river. Once a common breeding species in riparian habitats of lowland California, this species currently breeds consistently in only two locations in the State: along the Sacramento and South Fork Kern Rivers.	Absent. Suitable nesting habitat is absent. This species has not been recorded in Fresno County in more than 100 years and is believed to be extirpated from the region.

Table 3-9. Special Status Plants with Potential to Occur Onsite or in the Vicinity

Species	Status	Habitat	Occurrence on Project Site
California jewelflower (<i>Caulanthus californicus</i>)	FE, CE, CNPS 1B	Found in the San Joaquin Valley and Western Transverse Ranges in sandy soils. Occurs on flats and slopes, generally in non-alkaline grassland at elevations between 230 feet and 6100 feet. Blooms February–April.	Absent. The ruderal and disturbed habitats of the Project area are generally unsuitable for this species. There have been no recorded observations of this species in Fresno County in over 100 years, and it is believed that conversion of native habitat to urban development and agriculture has extirpated this species from the region.
California satintail (<i>Imperata brevifolia</i>)	CNPS 2B	Although this facultative species is equally likely to occur in wetlands and non-wetlands, it is often found in wet springs, meadows, streambanks, and floodplains at elevations below 1600 feet. Blooms September – May.	Unlikely. The ruderal and disturbed habitats of the Project area are generally unsuitable for this species. The only recorded observation of this species in the Project's vicinity corresponds to a historical collection made over 100 years ago.
caper-fruited tropidocarpum (<i>Tropidocarpum capparideum</i>)	CNPS 1B	Found in alkaline clay soils in low hills and valleys, often within Valley Grassland communities, at elevations below 1300 feet. Blooms March – April.	Absent. Soils required by this species are absent from the Project area.
forked hare-leaf (<i>Lagophylla dichotoma</i>)	CNPS 1B	Found in cismontane woodland, and valley and foothill grassland communities at elevations between 600 feet and 1100 feet.	Absent. The Project area is located below the altitudinal range of this species.
Greene's tuctoria (<i>Tuctoria greenei</i>)	FE, CR, CNPS 1B	Found in the San Joaquin Valley and other parts of California in vernal pools within valley grassland, wetland, and riparian communities at elevations below 3500 feet. Blooms May – September.	Absent. Suitable vernal pool habitat is absent from the Project area.
Madera leptosiphon (<i>Leptosiphon serrulatus</i>)	CNPS 1B	Found in openings in foothill woodland, often yellow-pine forest, and chaparral at elevations between 1000 feet and 4300 feet. Blooms April – May.	Absent. Suitable habitat is absent and the Project area is located outside of the altitudinal range of this species.
San Joaquin adobe sunburst (<i>Pseudobahia peirsonii</i>)	FT, CE, CNPS 1B	Found in the San Joaquin Valley and the Sierra Nevada Foothills in bare dark clay soils in valley and foothill grassland and cismontane woodland communities at elevations between 325 feet and 2950 feet. Blooms March–May.	Absent. Soils required by this species are absent from the project area.
San Joaquin Valley Orcutt grass (<i>Orcuttia inaequalis</i>)	FT, CE, CNPS 1B	Found in the eastern San Joaquin Valley and the Sierra Nevada foothills in vernal pools within valley grassland, freshwater wetland, and wetland-riparian communities at elevations below 2600 feet. Blooms April – September.	Absent. Suitable vernal pool habitat is absent from the project area.

Species	Status	Habitat	Occurrence on Project Site
Sanford's arrowhead (<i>Sagittaria sanfordii</i>)	CNPS 1B	Found in the San Joaquin Valley and other parts of California in freshwater-marsh, primarily ponds and ditches, at elevations below 1000 feet. Blooms May–October.	Unlikely. This species was not observed during the biological survey. Habitats of the Project area are considered marginal, at best for this species.
spiny-sepaed button-celery (<i>Eryngium spinosepalum</i>)	CNPS 1B	Found in the Sierra Nevada Foothills and the San Joaquin Valley. Occurs in vernal pools, swales, and roadside ditches. Often associated with clay soils in vernal pools within grassland communities. Occurs at elevations between 50 feet and 4160 feet. Blooms April–July.	Absent. Suitable vernal pool habitat is absent from the project area.
succulent owl's-clover (<i>Castilleja campestris</i> var. <i>succulenta</i>)	FT, CE, CNPS 1B	Found in vernal pools, often in acidic soils at elevations below 2500 feet. Blooms April – July.	Absent. Suitable vernal pool habitat is absent from the project area.

Explanation of Occurrence Designations

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

Status Codes

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
CSC	California Species of Special Concern	CWL	California Watch List
CCE	California Endangered (Candidate)	CR	California Rare

CNPS Rare Plant Ranks

1B	Plants Rare, Threatened, or Endangered in California and elsewhere
2B	Plants Rare, Threatened, or Endangered in California, but more common elsewhere

Species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations by CDFW or USFWS that have the potential to be impacted by the Project are identified below with corresponding mitigation measures.

3.4.4 Project-Related Mortality and/or Disturbance of Nesting Raptors, Migratory Birds, and Special Status Birds (Including Swainson's Hawk)

The Project site contains suitable nesting and/or foraging habitat for a variety of avian species. Several stick nests were observed within eucalyptus trees along the Project's eastern boundary at the time of the field survey. In addition to the eucalyptus grove onsite, cottonwood trees, narrowleaf willows, sandbar willows, Gooding's willows and even the invasive tree of heaven provide suitable nesting habitat for a variety of resident and migratory birds. Ground nesting birds such as the killdeer (*Charadrius vociferus*) could nest on the bare ground or compacted dirt roads onsite, and waterfowl may nest adjacent to the existing Savory Pond basin. Black phoebe and cliff swallow (*Petrochelidon pyrrhonota*) could nest on structures within or adjacent to canals.

At the time of the field survey, three raptor stick nests were observed within the eucalyptus grove along Chestnut Avenue. One of the nests was occupied by a red-tailed hawk in incubation posture. Great horned owls were observed flushing from one of the other nests. No activity was observed at the third nest; however, this nest is also presumed to belong to great horned owls based on the whitewash, feathers, and pellets at the base of the nest tree. Five great horned owl individuals (two adults and three juveniles) were observed within the eucalyptus grove at the time of the field survey. One Swainson's hawk was also observed onsite, but this individual was not seen at a nest during the observation period. Other notable observations include the presence of a Bullock's oriole within riparian habitat at the culvert adjacent to the mobile home park and mallards within the existing Savory Pond basin. In addition, the Project site contains several large snags which could provide nesting habitat for cavity nesters such as the American kestrel or the northern flicker, both of which were observed onsite during the field survey.

If birds were nesting within or adjacent to Project areas at the time of construction, Project-related activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect nesting success or result in mortality of individual birds constitute a violation of State and federal laws and would be considered a significant impact under CEQA.

In addition to providing nesting habitat, the Project area serves as foraging habitat for a variety of avian species. The grassland pasture onsite supported a large population of rodents, lizards, and flying arthropods at the time of the field survey.

The Project includes removal of all trees and vegetation within the APE. If it were determined that the proposed vegetation removal would result in a significant loss of nesting and/or foraging habitat, this could potentially be considered a significant impact under CEQA. A review of historical aerial imagery shows that the Project area was filled and graded, eliminating any natural topographic features. Then the existing basins were constructed, and the southern portion of the site was developed into agricultural crops. The trees onsite appear to have been planted around the time the mobile home park was constructed between 1977 and 1985. Because the Project area is already disturbed and there is a swath of similar habitat available in the vicinity, the removal of trees and conversion of non-native grassland pasture to a detention basin would not be considered a significant loss of nesting or foraging habitat. Furthermore, in the unlikely event that a Swainson's hawk or other avian species is foraging within the Project site during construction activities, the individual would be expected to fly away from disturbance they encounter, subsequently eliminating the risk of injury or mortality while foraging. However, if birds were nesting within these trees at the time of construction, Project-related activities could result in the abandonment of active nests or direct mortality to these birds, which would be considered a significant impact under CEQA and a violation of State and federal regulations protecting avian species.

Nesting bird season is generally accepted as February 1 through August 31; however, Swainson's hawk nesting season is generally accepted as March 1 through September 15. For simplicity, these timeframes have been combined.

Implementation of the following measures, will reduce potential impacts to nesting raptors, migratory birds, and special status birds, including Swainson's hawk to a less-than-significant level under CEQA, and will ensure compliance with State and federal laws protecting these avian species.

Mitigation. The following measures will be implemented prior to the start of construction:

Mitigation Measure NEST-1a (Avoidance)

The Project's construction activities shall occur, if feasible, between September 16 and January 31 (outside of nesting bird season) in an effort to avoid impacts to nesting birds.

Mitigation Measure NEST-1b (Pre-construction Surveys)

If activities must occur within nesting bird season (February 1 to September 15), a qualified biologist shall conduct pre-construction surveys for Swainson's hawk nests onsite and within a 0.5-mile radius. These surveys will be conducted in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee, 2000) or current guidance. In addition to the focused Swainson's hawk surveys, a qualified biologist shall conduct a pre-construction survey for all other nesting birds within 30 days prior to the start of construction. The survey shall include the proposed work area and surrounding lands within 500 feet. All raptor nests will be considered "active" upon the nest-building stage.

Mitigation Measure NEST-1c (Establish Buffers)

On discovery of any active nests near work areas, the biologist shall determine appropriate construction setback distances based on applicable CDFW and/or USFWS guidelines and/or the biology of the species in question. Specifically, a 0.5-mile disturbance-free buffer shall be implemented around active Swainson's hawk nests. Construction buffers shall be identified with flagging, fencing, or other easily visible means, and shall be maintained until the biologist has determined that the nestlings have fledged and are no longer dependent on the nest.

3.4.4.1 Project-Related Impacts to Special Status Plant Species

All eleven of the special status plant species which have been documented in the Project vicinity are considered absent from or unlikely to occur within the Project area due to past or ongoing disturbance and/or the absence of suitable habitat. As explained in **Table 3-9** the following species were deemed absent from the Project site: California jewelflower, caper-fruited tropidocarpum, forked hare-leaf, Greene's tuctoria, Madera leptosiphon, San Joaquin adobe sunburst, San Joaquin Valley Orcutt grass, spiny-sealed button-celery, and succulent owl's-clover; and the following species were deemed unlikely to occur onsite: California satintail and Sanford's arrowhead. Since there is little to no potential for these species to occur onsite, implementation of the Project will have no impact on these 11 special status species through construction, mortality, disturbance, or loss of habitat. Mitigation measures are not warranted.

3.4.4.2 Project-Related Impacts to Special Status Animal Species Absent From, or Unlikely to Occur on, the Project Site

Of the 20 regionally occurring special status species, 18 are considered absent from or unlikely to occur within the Project area due to past or ongoing disturbance and/or the absence of suitable habitat. As explained in **Table 3-8**, the following species were deemed absent from the Project site: California glossy snake, coast horned lizard, valley elderberry longhorn beetle, vernal pool fairy shrimp, and western yellow-billed cuckoo; and the following species were deemed unlikely to occur onsite: American badger, burrowing owl, California tiger salamander, Crotch bumble bee, Fresno kangaroo rat (, least Bell's vireo, northern California legless lizard, pallid bat, San Joaquin kit fox, tricolored blackbird, western mastiff bat, western pond turtle, and western spadefoot. Since there is little to no potential for these species to occur onsite, implementation of the Project will have no impact on these 18 special status species through construction, mortality, disturbance, or loss of habitat. Mitigation measures are not warranted.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant Impact. There are no CNDDDB-designated “natural communities of special concern” recorded within the Project area or surrounding lands. The Project site consists of a man-made canal, existing man-made basins, a ruderal grove of eucalyptus, ruderal and non-native grassland pasture, and livestock enclosures. Tree of heaven, Fremont cottonwood trees, Gooding’s willows, narrowleaf willows, and sandbar willows are present around the existing basin west of the mobile home park. Ponded water was present at the culvert depositing water into the basin, and this area supported a small, artificially excavated and irrigated riparian habitat consisting of Fremont cottonwood, Japanese honeysuckle, smartweed, vinca, monkeyflower, and flatsedge. Both excavated basins contained regionally abundant hydrophytic vegetation mixed with ruderal non-native grasses and forbs. The basins onsite are considered artificial wetlands, and are not subject to the jurisdiction of USACE or RWQCB.

A review of historical aerial imagery shows that the Project area was filled and graded between 1950 and 1957, eliminating any natural topographic features. Then the existing basins were constructed between 1957 and 1965, and the southern portion of the site was developed into agricultural crops prior to 1977. The trees onsite appear to have been planted around the time the mobile home park was constructed between 1977 and 1985. Currently, there are no natural lakes or streams onsite. The existing riparian trees were intentionally planted, and the basin areas are artificially irrigated with collected stormwater runoff and canal water via culverts. At the time of the field survey, an abundance of invasive American bullfrogs were observed within the Oleander Canal and existing basins. The Project area was dominated by weedy, non-native vegetation and significantly disturbed, evidenced by dumped trash, burn piles, vehicle tracks, ongoing earthwork, discarded animal corpses, and vagrant camps. Furthermore, the site is flanked by an adjacent mobile home park and intensively cultivated agricultural lands. Undoubtedly, some native wildlife species use the Project area in the absence of preferred habitat. However, because of the aforementioned disturbance and the presence of invasive species, the Project area represents relatively low quality habitat for native plants and animals.

Construction of the Project will include the removal of trees and vegetation and earthwork associated with expansion of the existing basins onsite. Tree removal will be permanent, but implementation of the Project will actually result in an increase in the area of artificial wetlands. Once the proposed basins are constructed, it is likely that the collection of water will result in the re-emergence of riparian plants.

For all of these reasons, the vegetation removal associated with implementation of the Project should not be considered a significant loss of habitat or conversion of a sensitive natural community. Any impacts would be considered less than significant. Mitigation measures are not warranted.

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?

Less than Significant Impact. The Project involves alterations to existing man-made canals and basins. Oleander Canal does not appear to have any downstream connection to a navigable water, other known Water of the U.S., or known Water of the State, and these artificial water features are typically not regulated by USACE or RWQCB. The most recent guidance from the SWRCB, State Wetland Definition and Procedures for Discharge of Dredged or Fill Material to Waters of the State (State Water Resources Control Board, 2019) indicates that artificial wetlands used as retention/detention basins for stormwater runoff and/or settling ponds and agricultural ditches excavated in upland are typically not considered Waters of the State. Since construction will involve ground disturbance over an area greater than one acre, the Project proponent will be required to obtain a Construction General Permit under the Construction Storm Water Program administered by the RWQCB. A prerequisite for this permit is the development of a Storm Water Pollution Prevention Plan (SWPPP) to ensure construction activities do not adversely affect water quality ([Appendix B](#)). Therefore, implementation of the Project would not have a significant impact on wetlands and mitigation measures are not warranted.

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 Impact. The Project area does not contain features that would be likely to function as wildlife movement corridors. Furthermore, the Project is located in a region often disturbed by intensive agricultural cultivation practices and human disturbance which would discourage dispersal and migration. Potential impacts to migratory birds and nesting birds has been discussed in detail above, and no additional mitigation is warranted. Any impacts to wildlife movement corridors and native nursery sites would be considered less than significant.

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

Less than Significant Impact. The Fresno County General Plan states that the County shall ensure that landmark trees are preserved and protected whenever possible (Open Space-F.4). However, the County does not define landmark tree and has not adopted any tree preservation ordinances, therefore the Project does not conflict with any specific policy or ordinance protecting trees or biological resources. Therefore, any impacts would be less than significant.

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. The Project site is not within a designated Habitat Conservation Plan, Natural Conservation Plan, or any other State or local habitat conservation plan. There would be no impact.

3.5 Cultural Resources

Table 3-10. Cultural Resources Impacts

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

3.5.1 Environmental Setting

The Proposed Project site lies within Fresno County, which occupies an archeologically and historically rich part of the San Joaquin Valley.

RECORDS SEARCH

On May 18, 2020, Provost & Pritchard received a records search from the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS), located at California State University, Bakersfield. The records search encompassed the Project APEs as well as a 0.5-mile radius surrounding the various locations. SSJVIC staff examined site record files, maps, and other materials to identify previously recorded resources and prior surveys within the delineated area (**Appendix C**). Additional sources included the State Office of Historic Preservation (SHPO) Historic Properties Directory, Archaeological Determinations of Eligibility, and the California Inventory of Historic Resources.

NATIVE AMERICAN OUTREACH

In May of 2020, Provost & Pritchard contacted the Native American Heritage Commission (NAHC) in Sacramento. Provost & Pritchard provided NAHC a brief description of the project and a map showing its location and requested that the NAHC perform a search of the Sacred Lands File to determine if any Native American resources have been recorded in the immediate study area. The results were negative. Provost & Pritchard also requested NAHC provide a current list of local Native American contacts for the Proposed Project APE. The 13 tribes identified by NAHC were contacted in writing via US mail with a letter dated May 7, 2020 informing them about the Proposed Project.

3.5.2 Impact Assessment

a) Cause a substantial adverse change in the significance of a historical resource as defined in §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 Incorporated.

A records search from the California Historical Resources Information System (CHRIS) at the Southern San Joaquin Valley Information Center (SSJVIC) dated May 18, 2020 (**Appendix C**) indicated that there are no cultural resource studies conducted within the project area. However there have been four previous cultural resource studies conducted within the one-half mile radius. CHRIS did confirm that there are three recorded

resources within the project area and three recorded resources within the one-half mile radius. The Oleander Canal nor any potential historical integrity of the canal will be impacted by this project. The proposed project will not modify the existing canal however the project includes several structural improvements including replacing and upsizing the existing turnout to the North Basin, improving/extending the existing turnout to the South Basins, and constructing a basin intertie structure that will most likely siphon beneath the existing Oleander Canal culvert/siphon.

To identify any historic properties, the SSJVIC examined the current inventories of the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), California Historical Landmarks (CHL), California Points of Historical Interest (CPHI), California Inventory of Historic Resources (CIHR), California State Historic Landmarks, and other pertinent historical data available at the SSJVIC. There are recorded resources with the one-half mile radius consisting of two historic era farming communities, two historic era canals, an historic era railroad and an historic era windmill. Although the site was previously used for agriculture, it is unknown if cultural resources are present. Therefore Mitigation Measure CUL-1 has been incorporated into the project.

Provost & Pritchard contacted the Native American Heritage Commission (NAHC) for a Sacred Lands File & Native American Contacts List which was received May 6, 2020. Following receipt of the list, Provost & Pritchard sent letters to the following Tribes via United States mail requesting consultation:

1. *Big Sandy Rancheria of Western Mono Indians, Elizabeth D. Kipp, Chairperson*
2. *Cold Springs Rancheria, Carol Bill, Chairperson*
3. *Dumna W'o-Wab Tribal Government, Robert Ledger SR, Tribal Chairperson*
4. *Dunlap Band of Mono Indians, Benjamin Chrley Jr., Tribal Chair*
5. *Dunlap Band of Mono Indians, Dick Charley, Tribal Secretary*
6. *Kings River Choinumni Farm Tribe, Stan Alec*
7. *North Fork Mono Tribe, Ron Goode, Chairperson*
8. *Santa Rosa Indian Community of the Santa Rosa Rancheria, Rueben Barrios Sr., Chairperson*
9. *Table Mountain Rancheria of California, Leanne Walker-Grant, Chairperson*
10. *Table Mountain Rancheria of California, Bob Pennell, Cultural Resources Director*
11. *Traditional Choinumni Tribe, David Alvarez, Chairperson*
12. *Traditional Choinumni Tribe, Rick Osbourne, Cultural Resources*
13. *Wuksache Indian Tribe/Eshom Valley Band, Kenneth Woodrow, Chairperson*

No written responses were received. All Tribal correspondence is included within **Appendix C** to this initial study.

Although it is unlikely that archeological remains would occur during construction or operation of the Proposed Project, CUL-1 is to be considered.

Mitigation Measure CUL-1 (Archaeological Resources)

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 shall halt until a qualified archaeologist can assess the discovery. The District shall implement all recommendations of the archaeologist necessary to avoid or reduce to a less than significant level potential impacts to cultural resource. Appropriate actions could include a Data Recovery Plan or preservation in place.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant Impact with Mitigation Incorporated. No formal cemeteries or other places of human internment are known to exist on the Project site; however, in accordance with Health and Safety Code Section 7050.5 and Public Resource Code Section 5097.98, if human remains are uncovered, Mitigation Measure CUL-2 would be implemented.

Mitigation Measure CUL-2 (Human remains)

If human remains are uncovered, or in any other case when human remains are discovered during construction, the Fresno County Coroner is to be notified to arrange their proper treatment and disposition. If the remains are identified—on the basis of archaeological context, age, cultural associations, or biological traits—as those of a Native American, California Health and Safety Code 7050.5 and Public Resource Code 5097.98 require that the coroner notify the NAHC within 24 hours of discovery. The NAHC would then identify the Most Likely Descendent who would determine the manner in which the remains are treated.

3.6 Energy

Table 3-11. Energy Impacts

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

3.6.1 Environmental Setting

PG&E is the primary energy utility purveyor within Fresno County. PG&E has sufficient energy supplies to supply the growth that has occurred in Fresno County. Much of the energy consumed in the region is for agricultural, residential, commercial, and transportation purposes. There is currently power at the site. The new flow meter and most likely the gate actuators will require PGE, but nothing that is in addition to the existing.

Construction equipment and construction worker vehicles operated during Project excavation and construction would use fossil fuels. This increased fuel consumption would be temporary and would cease at the end of the construction activity, and it would not have a residual requirement for additional energy input. The marginal increases in fossil fuel use resulting from Project construction are not expected to have appreciable impacts on energy resources. There is currently power at the site.

3.6.2 Impact Assessment

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

No Impact. As discussed in Section 3.3, the Project would not exceed any air emission thresholds during construction or operation. All improvements will utilize existing PG&E and no new services will be needed. The new flow meter and most likely the gate actuators will require PGE, but nothing that is in addition to the existing. The Project would comply with construction best management practices and may be required to complete a SWPPP as part of construction. Once completed, the Project would be mostly passive in nature and would not use an excessive amount of energy. Therefore, the Project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. There would be no impact.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The Project would be passive in nature once it is completed, and the construction phase would be temporary in nature and would not exceed any thresholds set by the SJVAPCD. All improvements will utilize existing PG&E and no new services will be needed.

3.7 Geology and Soils

Table 3-12. Geology and Soils Impacts

Geology and Soils				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.7.1 Environmental Setting

The Project is located in Fresno County, in the southern section of California's Great Valley Geomorphic Province, or Central Valley. The Sacramento Valley makes up the northern third and the San Joaquin Valley makes up the southern two-thirds of the geomorphic province. Both valleys are watered by large rivers flowing west from the Sierra Nevada Range, with smaller tributaries flowing east from the Coast Ranges. Most of the surface of the Great Valley is covered by Quaternary (present day to 1.6 million years ago) alluvium. From the time the Valley first began to form, sediments derived from erosion of igneous and metamorphic rocks and

Fresno marine sediments in the surrounding mountains have been transported into the Valley by streams. California has more than 800 different geologic units that provide a variety of rock types, mineral resources, geologic structures and spectacular scenery.⁸

Using the USDA NRCS soil survey of the Project site, an analysis of the soils onsite was performed (Table 3-13). Soils in the area consist of Delhi loamy sandy DhA - 0 to 3 and DhB - 3 to 9 percent slopes, MLRA 17, Dello loamy sand and Hanford sandy loam. (Table 3-13).

Table 3-13. Soils of the Project site

Soils of the Study Area					
Soils Series	Parent Material	Drainage Class	Hydric?	Shrink-swell Capacity	Acres of Project site
Delhi loamy sand, 0 to 3 percent slopes, MLRA 17	Eolian deposits derived from sandy alluvium derived from granite	Somewhat excessively drained	No	N/A	0.1
Delhi loamy sand, 3 to 9 percent slopes, MLRA 17	Eolian deposits derived from sandy alluvium derived from granite	Somewhat excessively drained	No	N/A	8.5
Dello loamy sand	Alluvium derived from Granitic	Somewhat poorly drained	Yes	Flooding (1.00)/Depth to saturated zone (0.61)	19.4
Hanford sandy loam	Alluvium derived from Granite	Well drained	No	N/A	2.5

3.7.1.1 Faults and Seismicity

The Project site is not located within an Alquist-Priolo Earthquake Fault Zone and no known faults cut through the local soil at the site. The nearest major fault is the San Andreas Fault (Creeping Section), located approximately 64.65 miles southwest of the APE. The San Andreas Fault is the dominant active tectonic feature of the Coast Ranges and represents the boundary of the North American and Pacific plates. A smaller fault zone, the O'Neill Fault system is approximately 57.14 miles west of the site.

3.7.1.2 Liquefaction

The potential for liquefaction, which is the loss of soil strength due to seismic forces, is dependent on soil types and density, depth to groundwater, and the duration and intensity of ground shaking. Although no specific liquefaction hazard areas have been identified in Fresno County, this potential is recognized throughout the San Joaquin Valley where unconsolidated Fresno sediments and a high water table coincide. It is reasonable to assume that due to the depth to groundwater within the southern portion of Fresno County, liquefaction hazards would be negligible.

⁸ (California Department of Conservation - California Geological Survey, 2020) Accessed May 27, 2020.

3.7.1.3 Soil Subsidence

Subsidence occurs when a large land area settles due to over-saturation or extensive withdrawal of ground water, oil, or natural gas. These areas are typically composed of open-textured soils, high in silt or clay content, that become saturated. The Project site is dominated by Dello loamy sand and Delhi sandy loam soils, with a low to moderate risk of subsidence.

3.7.1.4 Dam and Berm Failure

The southern portion of the Project site lies within the inundation zone for Pine Flat Dam.

3.7.2 Impact Assessment

a) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

a-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.

a-ii) Strong seismic ground shaking?

Less than Significant Impact. The Project site and its vicinity are located in an area traditionally characterized by relatively low seismic activity. The site is not located in an Alquist-Priolo Earthquake Fault Zone as established by the Alquist-Priolo Fault Zoning Act (Section 2622 of Chapter 7.5, Division 2 of the California Public Resources Code). The nearest major fault is the San Andreas Fault, located approximately 64.65 miles southwest of the Project site. A smaller fault zone, the Nunez Fault is approximately 56 miles southwest of the site.

The Project will consist of recharge basins split by the existing Oleander No. 16 Canal. The existing northern pond will be used as a sediment settling pond. Surface water will be diverted into the pond in the existing location and will be directed to a newly constructed siphon culvert connecting the basins. The new siphon culvert will be located near the eastern corner of the existing northern pond, near the upstream culvert structure. Therefore, implementation of the Project would not result in an increase of people or habitable structures onsite. Any impact would be less than significant.

a-iii) Seismic-related ground failure, including liquefaction?

Less than Significant Impact. Liquefaction is a process which involves the temporary transformation of soil from a solid state to a fluid form during intense and prolonged ground shaking. Water-saturated areas with shallow depth to groundwater and uniform sands, loose-to-medium in density, are prone to liquefaction. The Project site contains two on-site wetland areas as identified by the National Wetland Inventory (NWI), the Canal (Riverine) and the Freshwater Pond. Any impact would be less than significant.

a-iv) Landslides?

No Impact. As the Project is located on the Valley floor, no major geologic landforms exist on or near the site that could result in a landslide event. According to the Fresno County General Plan Background Report, the Project site is not within or near a region classified with a high landslide potential. The site is approximately 14-miles southwest of the Sierra Nevada foothills and the local topography is essentially flat and level. There would be no impact.

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

Less than Significant Impact. Earthmoving activities associated with the Project would include excavation, grading, and infrastructure construction. These activities could expose soils to erosion processes and the extent of erosion would vary depending on slope steepness/stability, vegetation/cover, concentration of runoff, and weather conditions. Dischargers whose projects disturb one (1) or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer (QSD). Since the Project site has relatively flat terrain with a low potential for soil erosion and would comply with the SWRCB requirements, the impact would be less than significant.

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

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

Less than Significant Impact. Soils onsite consist of the soils depicted on **Table 3-13**, which are classified as somewhat excessively drained, somewhat poorly drained, and well drained, all with a very low runoff class (See Appendix D of **Appendix B**). The project would include approximately 24 acres of recharge basins (on a 30 acre site) including onsite piping and appurtenances to divert water from existing District facilities into the proposed recharge to reduce groundwater overdraft. The Project site and surrounding areas do not contain substantial grade changes. Risk of landslides, lateral spreading, subsidence, liquefaction, and collapse are minimal due to the soil characteristics. The Project does not propose a significant change in the local topography that would cause sloping. The construction of the Project would involve excavating the Project site to a uniform depth. The Project does not include the development of structures or facilities that could be affected by expansive soils or expose people to substantial risks to life or property. Furthermore, the Project would be consistent with the California Building Standards Code. Any impacts would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. Septic installation or alternative wastewater disposal systems are not necessary for the project. There would be no impact.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact. Paleontological resources are fossilized remains of flora and fauna and associated deposits. 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) Section 15126.4(a)(1)). PRC Section 5097.5 (see above) also applies to paleontological resources.

There are no known paleontological resources or unique geological features that have been identified at the Project site. The impacts would be less than significant.

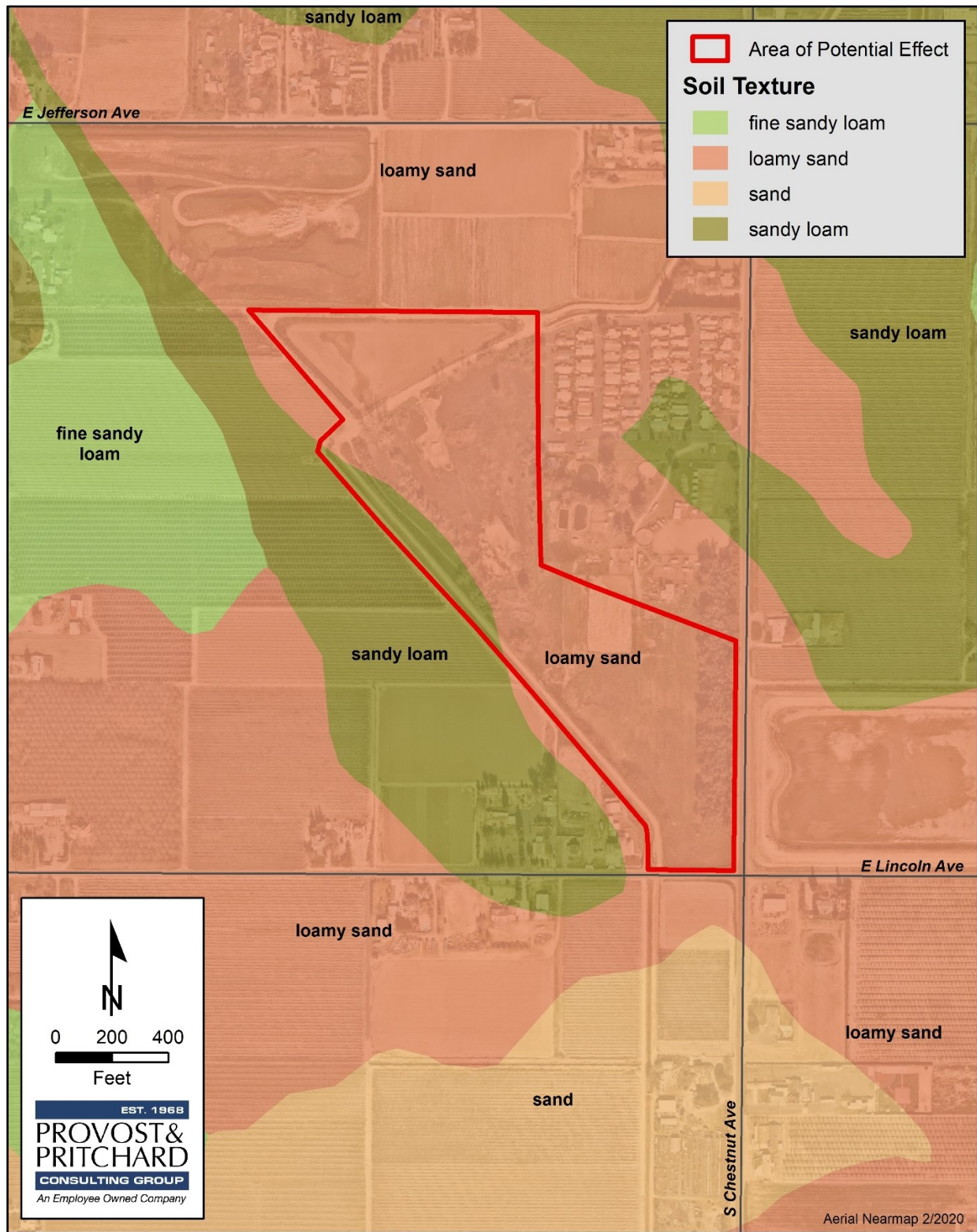


Figure 3-6. Soils with Aerial Map

3.8 Greenhouse Gas Emissions

Table 3-14. Greenhouse Gas Emissions Impacts

Greenhouse Gas Emissions				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.8.1 Environmental Setting

The Earth's climate has been warming for the past century. Experts believe this warming trend is related to the release of certain gases into the atmosphere. Greenhouse gases (GHG) absorb infrared energy that would otherwise escape from the Earth. As the infrared energy is absorbed, the air surrounding the Earth is heated. An overall warming trend has been recorded since the late 19th century, with the most rapid warming occurring over the past 35 years, with 16 of the 17 warmest years on record occurring since 2001. Not only was 2016 the warmest year on record, but eight of the 12 months that make up the year—from January through September, with the exception of July—were the warmest on record for those respective months. October, November, and December of 2016 were the second warmest of those months on record—in all three cases, behind records set in 2015.⁹ Human activities have been attributed to an increase in the atmospheric abundance of greenhouse gases. The following is a brief description of the most commonly recognized GHGs.

3.8.1.1 Greenhouse Gases

Commonly identified GHG emissions and sources include the following:

Carbon dioxide (CO₂) is an odorless, colorless natural greenhouse gas. CO₂ is emitted from natural and anthropogenic sources. Natural sources include the following: decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic out gassing. Anthropogenic sources include the burning of coal, oil, natural gas, and wood.

Methane (CH₄) is a flammable greenhouse gas. A natural source of methane is the anaerobic decay of organic matter. Geological deposits, known as natural gas fields, also contain methane, which is extracted for fuel. Other sources are from landfills, fermentation of manure, and ruminants such as cattle.

Nitrous oxide (N₂O), also known as laughing gas, is a colorless greenhouse gas. Nitrous oxide is produced by microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric a production, and vehicle emissions) also contribute to its atmospheric load.

⁹ (NASA, 2017). Accessed May 8, 2020.

Water vapor is the most abundant, and variable greenhouse gas. It is not considered a pollutant; in the atmosphere, it maintains a climate necessary for life.

Ozone (O₃) is known as a photochemical pollutant and is a greenhouse gas; however, unlike other greenhouse gases, ozone in the troposphere is relatively short-lived and, therefore, is not global in nature. Ozone is not emitted directly into the atmosphere but is formed by a complex series of chemical reactions between volatile organic compounds, nitrogen oxides, and sunlight.

Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

Chlorofluorocarbons (CFCs) are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. CFCs destroy stratospheric ozone; therefore, their production was stopped as required by the Montreal Protocol in 1987.

Hydrofluorocarbons (HFCs) are synthetic chemicals that are used as a substitute for CFCs. Of all the greenhouse gases, HFCs are one of three groups (the other two are perfluorocarbons and sulfur hexafluoride) with the highest global warming potential. HFCs are human-made for applications such as air conditioners and refrigerants.

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere; therefore, PFCs have long atmospheric lifetimes, between 10,000 and 50,000 years. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

Sulfur hexafluoride (SF₆) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It has the highest global warming potential of any gas evaluated. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

3.8.1.2 Effects of Climate Change

The impacts of climate change have yet to fully manifest. A hotter planet is causing the sea level to rise, disease to spread to non-endemic areas, as well as more frequent and severe storms, heat events, and air pollution episodes. Also affected are agricultural production, the water supply, the sustainability of ecosystems, and therefore the economy. The magnitude of these impacts is unknown.

Emissions of GHGs contributing to global climate change are largely attributable to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. GHG emissions are typically expressed in carbon dioxide-equivalents (CO₂e), based on the GHG's Global Warming Potential (GWP). The GWP is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, one ton of CH₄ has the same contribution to the greenhouse effect as approximately 21 tons of CO₂. Therefore, CH₄ is a much more potent GHG than CO₂.

3.8.2 Methodology

An Air Quality and Greenhouse Gas Emissions Evaluation Report (**Appendix A**) was prepared in May 2020. The sections below detail the methodology of the report and its conclusions.

3.8.2.1 Short-Term Construction-Generated Emissions

Short-term construction emissions associated with the Project were calculated using CalEEMod, Version 2016.3.2. Emissions' modeling was assumed to occur over an approximate 5-month period and covering a site area of approximately 30 acres. Remaining assumptions were based on the default parameters contained in the model. Modeling assumptions and output files are included in [Appendix A](#).

3.8.2.2 Long-Term Operational Emissions

Long-term operational emissions associated with the Project are estimated to be minimal in nature. Maintenance would be provided on an as needed basis by FID staff, and the operational equipment, such as an electric powered gate, would result in negligible emissions. The Project does not propose the use of any diesel-powered equipment. Modeling assumptions and output files are included in [Appendix A](#).

3.8.2.3 Thresholds of Significance

CEQA Guidelines Amendments became effective March 18, 2010. Included in the Amendments are revisions to the Appendix G Initial Study Checklist. In accordance with these Amendments, a project would be considered to have a significant impact to climate change if it would:

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

In accordance with SJVAPCD's *CEQA Greenhouse Gas Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects*¹⁰, proposed projects complying with Best Performance Standards (BPS) would be determined to have a less-than-significant impact. Projects not complying with BPS would be considered less than significant if operational GHG emissions would be reduced or mitigated by a minimum of 29 percent, in comparison to business-as-usual (year 2004) conditions. In addition, project-generated emissions complying with an approved plan or mitigation program would also be determined to have a less-than-significant impact.

San Joaquin Valley Air Pollution Control District

SJVAPCD Climate Change Action Plan:

On August 21, 2008, the SJVAPCD Governing Board approved the District's Climate Change Action Plan with the following goals and actions:

Goals:

- Assist local land-use agencies with California Environmental Quality Act (CEQA) issues relative to projects with GHG emissions increases.
- Assist Valley businesses in complying with mandates of AB 32.
- Ensure that climate protection measures do not cause increase in toxic or criteria pollutants that adversely impact public health or environmental justice communities.

Actions:

- Authorize the Air Pollution Control Officer to develop GHG significance threshold(s) or other mechanisms to address CEQA projects with GHG emissions increases. Begin the requisite public process, including public workshops, and develop recommendations for Governing Board consideration in the spring of 2009.
- Authorize the Air Pollution Control Officer to develop necessary regulations and instruments for establishment and administration of the San Joaquin Valley Carbon Exchange Bank for voluntary

¹⁰ (San Joaquin Valley Air Pollution Control District, 2009) Accessed May 8, 2020

GHG reductions created in the Valley. Begin the requisite public process, including public workshops, and develop recommendations for Governing Board consideration in spring 2009.

- Authorize the Air Pollution Control Officer to enhance the District's existing criteria pollutant emissions inventory reporting system to allow businesses subject to AB 32 emission reporting requirements to submit simultaneous streamlined reports to the District and the State of California with minimal duplication.
- Authorize the Air Pollution Control Officer to develop and administer voluntary GHG emission reduction agreements to mitigate proposed GHG increases from new projects.
- Direct the Air Pollution Control Officer to support climate protection measures that reduce GHG emissions as well as toxic and criteria pollutants. Oppose measures that result in a significant increase in toxic or criteria pollutant emissions in already impacted area.

SJVAPCD CEQA Greenhouse Gas Guidance: On December 17, 2009, the SJVAPCD Governing Board adopted "Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA" and the policy, "District Policy—Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency." The SJVAPCD concluded that the existing science is inadequate to support quantification of the impacts that project specific greenhouse gas emissions have on global climatic change. The SJVAPCD found the effects of project-specific emissions to be cumulative, and without mitigation, that their incremental contribution to global climatic change could be considered cumulatively considerable. The SJVAPCD found that this cumulative impact is best addressed by requiring all projects to reduce their greenhouse gas emissions, whether through project design elements or mitigation.

The SJVAPCD's approach is intended to streamline the process of determining if project-specific greenhouse gas emissions would have a significant effect. Projects exempt from the requirements of CEQA, and projects complying with an approved plan or mitigation program would be determined to have a less than significant cumulative impact. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources and have a certified final CEQA document.

Best performance standards (BPS) to address operational emissions of a project would be established according to performance-based determinations. Projects complying with BPS would not require specific quantification of GHG emissions and would be determined to have a less than significant cumulative impact for GHG emissions. Projects not complying with BPS would require quantification of GHG emissions and demonstration that operational greenhouse gas emissions have been reduced or mitigated by 29 percent, as targeted by CARB's AB 32 Scoping Plan. Furthermore, quantification of GHG emissions would be required for all projects for which the lead agency has determined that an Environmental Impact Report is required, regardless of whether the project incorporates BPS.

APR 2025 – CEQA Determinations of Significance for Projects Subject to CARB's Cap-and-Trade Regulation: The purpose of this policy is to provide guidance for the determination of significance for increases of GHG emissions associated with projects that are subject to CARB's cap-and-trade regulation. The SJVAPCD recognizes that the CARB's Cap-and-Trade Regulation is an adopted State-wide plan for reducing or mitigating GHG emissions from targeted industries. GHG emissions addressed by the Cap-and-Trade regulation are subject to an industry-wide cap on overall GHG emissions. As such, any growth in emissions must be accounted for under that cap, such that a corresponding and equivalent reduction in emissions must occur to allow any increase. Further, the cap decreases over time, resulting in an overall decrease in GHG emissions. Therefore, the SJVAPCD concluded that GHG emissions increases subject to CARB's Cap-and-Trade regulation would have a less than significant individual and cumulative impact on global climate change. This policy applies to projects for which the SJVAPCD is the lead agency, but is also useful for evaluation of other CEQA related projects for which the SJVAPCD may not be the lead agency.

Bay Area Air Quality Management District's Thresholds for Significance: Bay Area Air Quality Management District's approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce Statewide GHG emissions. If a project would generate GHG emissions above the threshold level, it would be considered to contribute substantially to a cumulative impact, and would be considered significant. If mitigation can be applied to lessen the emissions such that the project meets its share of emission reductions needed to address the cumulative impact, the project would normally be considered less than significant. Although the proposed Project is not located in the Bay Area, the Bay Area Air Quality Management District's thresholds for significance are based on the Statewide AB 32 objectives and would be used to quantify potential impacts related to GHG emissions. For land use development projects, the threshold is compliance with a qualified GHG Reduction Strategy or annual emissions less than 1,100 metric tons per year (MT/yr) of CO₂e. For stationary source projects, such as those requiring a permit from a local air district to operate, the threshold is 10,000 MT/yr of CO₂e.

Fresno County General Plan¹¹: The Fresno County General Plan does not contain any goals or policies related to greenhouse gas or climate change.

3.8.3 Impact Assessment

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? And

Less than Significant Impact.

Short-Term Construction-Generated Emissions

Estimated construction-generated emissions are summarized in **Table 3-15**. As indicated, construction of the Project would generate maximum annual emissions of approximately 146.8115 metric tons of carbon dioxide equivalent (MTCO₂e). Construction-related production of GHGs would be temporary and last approximately 5 months.

Table 3-15. Short-Term Construction-Generated GHG Emissions

Short-Term Construction-Generated GHG Emissions	
Year	Emissions (MT CO ₂ e) ⁽¹⁾
2020	105.1990
2021	146.8117
AB 32 Consistency Threshold for Land-Use Development Projects*	1,100
AB 32 Consistency Threshold for Stationary Source Projects*	10,000
Exceed Threshold?	No

1. Emissions were quantified using the CalEEMod, Version 2016.3.2. Refer to Appendix A for modeling results and assumptions. Totals may not sum due to rounding.

* As published in the Bay Area Air Quality Management District's CEQA Air Quality Guidelines. Available online at http://www.baaqmd.gov/~/_media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en Accessed April 19, 2019

¹¹ (Fresno County General Plan Policy Document, 2000) Accessed May 8, 2020.

Long-Term Operational Emissions

Estimated long-term operational emissions are summarized in **Table 3-16**. As indicated, operation of the Project would generate maximum annual emissions of approximately 0.0005 metric tons of carbon dioxide equivalent (MTCO_{2e}).

Table 3-16. Long-Term Operational GHG Emissions

Long-Term Operational GHG Emissions	
	Emissions (MT CO _{2e}) ⁽¹⁾
Estimated Total Annual Operational CO _{2e} Emissions	0.0005
AB 32 Consistency Threshold for Land-Use Development Projects*	1,100
AB 32 Consistency Threshold for Stationary Source Projects*	10,000
Exceed Threshold?	No

1. Emissions were quantified using the CalEEMod, Version 2016.3.2. Refer to Appendix A for modeling results and assumptions. Totals may not sum due to rounding.

* As published in the Bay Area Air Quality Management District's CEQA Air Quality Guidelines. Available online at http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en Accessed April 19, 2019.

Long-term operational emissions associated with the Project are estimated to be minimal in nature. Maintenance would be provided on an as needed basis by FID staff, and the operational equipment, such as an electric powered gate, would result in negligible emissions. The Project does not propose the use of any diesel-powered equipment. There would not be a substantial increase in vehicle trips or vehicle miles travelled because maintenance would be provided on an as-needed basis. Furthermore, there is no population growth associated with the Project. Therefore, Project-related emissions of GHGs would be less than significant.

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

Less than Significant Impact. In accordance with SJVAPCD's recommended guidance, project-generated GHG emissions would be considered less than significant if: (1) the Project complies with applicable BPS; (2) operational GHG emissions would be reduced or mitigated by a minimum of 29 percent in comparison to business-as usual (year 2004) conditions; or (3) project-generated emissions would comply with an approved plan or mitigation program.

As discussed in Impact Assessment a and illustrated in **Table 3-15** above, the Project complies with the Bay Area Air Quality Management District's GHG emissions thresholds for significance. Consequently, implementation of the proposed Project is not anticipated to conflict with any applicable plan, policy, or regulation for reducing the emissions of GHGs, nor will the Project have a significant impact on the environment. The impact would be considered less than significant.

3.9 Hazards and Hazardous Materials

Table 3-17. Hazards and Hazardous Materials Impacts

Hazards and Hazardous Materials				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.9.1 Environmental Setting

3.9.1.1 Hazardous Materials

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code (GC) Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Cortese List. The Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List. DTSC's EnviroStor database provides DTSC's component of Cortese List data (DTSC, 2010). In addition to the EnviroStor database, the State Water Resources Control Board (SWRCB) Geotracker database provides information on regulated hazardous waste facilities in California, including underground storage tank (UST) cases and non-UST cleanup programs, including Spills-

Leaks-Investigations-Cleanups (SLIC) sites, Department of Defense (DOD) sites, and Land Disposal program. A search of the DTSC EnviroStor database and the SWRCB Geotracker performed on March 20, 2019 determined that there are no known active hazardous waste generators or hazardous material spill sites within the Project site or immediate surrounding vicinity.

3.9.1.2 Airports

The Fresno Yosemite International Airport is located approximately 7.86 miles north and the Selma Municipal Airport is located approximately 6.2 miles southwest.

3.9.1.3 Emergency Response Plan

The Fresno County Office of Emergency Services (OES) is located within the Department of Public Health and coordinates planning, preparedness, response and recovery efforts for disasters occurring within the unincorporated area of the County.

3.9.1.4 Sensitive Receptors

The southeast corner of the APE sits at the intersection of E. Lincoln Ave and S. Chestnut Ave. A portion of the north section borders a small mobile home community to the north-east. The north and west of APE borders agricultural farmland plots. The City of Fresno is approximately 1.13 miles north of the APE with SR 99 approximately 1.07 miles to the east. SR 41 is approximately 2.37 miles to the west.

3.9.2 Impact Assessment

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

Less than Significant Impact. Implementation of the Project would include the construction of approximately 24-acres of basins for FID. Construction of the Project could involve the use of hazardous materials associated with construction equipment, such as diesel fuel, lubricants, and solvents. However, the contractor may implement a SWPPP and would comply with all Cal/OSHA regulations regarding regular maintenance and inspection of equipment, spill prevention, and spill remediation in order to reduce the potential for incidental release of pollutants or hazardous substances onsite. Furthermore, any potential accidental hazardous materials spills during construction are the responsibility of the contractor to remediate in accordance with industry best management practices and State and county regulations. Impacts would be less than significant.

- 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 Project does not involve land that is listed as a hazardous materials site pursuant to Government Code Section 65962.5 and is not included on a list compiled by the Department of Toxic Substances Control. A search of the DTSC EnviroStor database and the SWRCB Geotracker performed on May 18, 2020 determined that there are no known active hazardous waste generators or hazardous material spill sites within the Project site or immediate surrounding vicinity. There would be no impact.

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?; and,

Less than Significant Impact. The Project is not located within an airport land use plan. The Fresno Yosemite International Airport is located approximately 7.86 miles north. Construction of the Project would not be a safety hazard for people working in the area. Operation of the recharge basin site would not generate excessive noise, and any construction noise would be temporary. The impact would be less than significant.

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

Less than Significant Impact. The Project includes the construction of approximately 24-acres of basins. Construction traffic associated with the Project would be minimal and temporary, lasting approximately five months. Operational traffic would consist of as-needed maintenance trips and would have no effect on roadways or emergency access. Road closures and detours are not anticipated as part of the construction phase of the Project. Therefore, Project-related impacts to emergency evacuation routes or emergency response routes on local roadways would be considered less than significant.

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

No Impact. The closest state responsibility areas with lands classified as moderate fire hazard severity zones are located approximately 15.79 miles east of the APE. The Project does not include any residential components to be constructed, nor would it require any employees to be stationed permanently at the site on a daily basis. There would be no impact.

3.10 Hydrology and Water Quality

Table 3-18. Hydrology and Water Quality Impacts

Hydrology and Water Quality				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.10.1 Environmental Setting

Fresno County is large and geographically diverse. The mountainous eastern region receives up to 70 inches precipitation annually, mostly in snowfall. Many small mountain lakes and streams and tributaries to the San Joaquin and Kings Rivers which flow into the Central Valley. The valley and western portion of the county, by contrast are very arid, with less than 10 inches of annual rainfall and seasonal streams. The foothills east and northeast of the city of Fresno have areas of vernal pools. The valley trough has large wetlands and wildlife refuge areas of importance to the Pacific Flyway. Additional areas in western Fresno County are being converted to wetland areas from retired agriculture land.

Groundwater conditions vary considerably from eastern to western Fresno County. Aquifers east of the valley trough are generally semi-confined to unconfined. Water quality is good with the exception of some localized areas. Overdraft and recharge conditions vary considerably. Groundwater overdraft is occurring in the groundwater basin, particularly in areas that rely exclusively on groundwater.

Like most of California, the San Joaquin Valley experiences a Mediterranean climate. Warm, dry summers are followed by cool, moist winters. Summer temperatures often reach above 90+ degrees Fahrenheit, and the humidity is generally low. Winter temperatures are often below 60 degrees Fahrenheit during the day and rarely exceed 70 degrees. The Central Valley receives an average of 12 inches of precipitation in the form of rainfall yearly, most of which occurs between October and March.

The entire Project site lies within Oleander Canal-Fish Slough sub-watershed; Hydrologic Unit Code (HUC): 180300090505, part of the Dog Creek-Fish Slough watershed; HUC: 1803000905. The principal drainage in the vicinity is Oleander Canal, which runs along the northwest edge of the Project site.¹²

3.10.2 Impact Assessment

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

Less than Significant Impact. The State Water Resources Control Board (SWRCB) requires that a Storm Water Pollution Prevention Plan (SWPPP) be prepared for projects that disturb one or more acres of soil. A SWPPP involves site planning and scheduling, limiting disturbed soil areas, and determining best management practices to minimize the risk of pollution and sediments being discharged from construction sites. Implementation of the SWPP would minimize the potential for the Project to substantially alter the existing drainage pattern in a manner that would result in substantial erosion or siltation onsite or offsite.

The intent of the basin Project is to help meet existing irrigation demands during the irrigation season when limited surface water is available, especially during times of a drought. The Project would not generate any type of process or wastewater, therefore, would be no discharge of Project water to any surface source. As such, there would be no discharge directly associated with Project implementation that could impact water quality standards of any nearby waters of the United States. Impacts would be less than significant.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project would impede sustainable groundwater management of the basin?

No Impact. Implementation of the Project would not impede sustainable groundwater management of the San Joaquin Valley Kings subbasin, nor would it substantially decrease ground water supplies. Rather, the project would actually help this portion of the subbasin reach sustainability.

c) Would the project 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:

c-i) result in substantial erosion or siltation on- or off-site;

c-ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite;

c-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

c-iv) impede or redirect flood flows?

¹² (California Department of Water Resources, 2018) Accessed July 1, 2020

d) Would the project result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. The Project will consist of recharge basins split by the existing Oleander No. 16 Canal culvert. There are no streams or rivers onsite or in the immediate vicinity of the Project. The Project does not involve the construction of impervious surfaces so impacts to the existing drainage pattern of the area would be less than significant. The Project would consist of excavating to a uniform depth for the purpose of groundwater recharge. In order to minimize erosion and run-off during construction activities, a SWPPP may be implemented, and the contractor would comply with all Cal/OSHA regulations regarding regular maintenance and inspection of equipment, spill prevention, and spill remediation in order to reduce the potential for incidental release of pollutants or hazardous substances onsite. The project is not in a flood or seiche zone. The nearest flood zone is located 1.6 miles away. See Figure 3-7. There would be no impact.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. As discussed above in Impact Assessments a and c-iii) above, implementation of the Project would help alleviate water supply issues during the irrigation season. Furthermore, construction activities would require implementation of a SWPPP and compliance with all Cal/OSHA regulations in order to reduce the potential for incidental release of pollutants or hazardous substances into surface water or groundwater. There would be no impact.

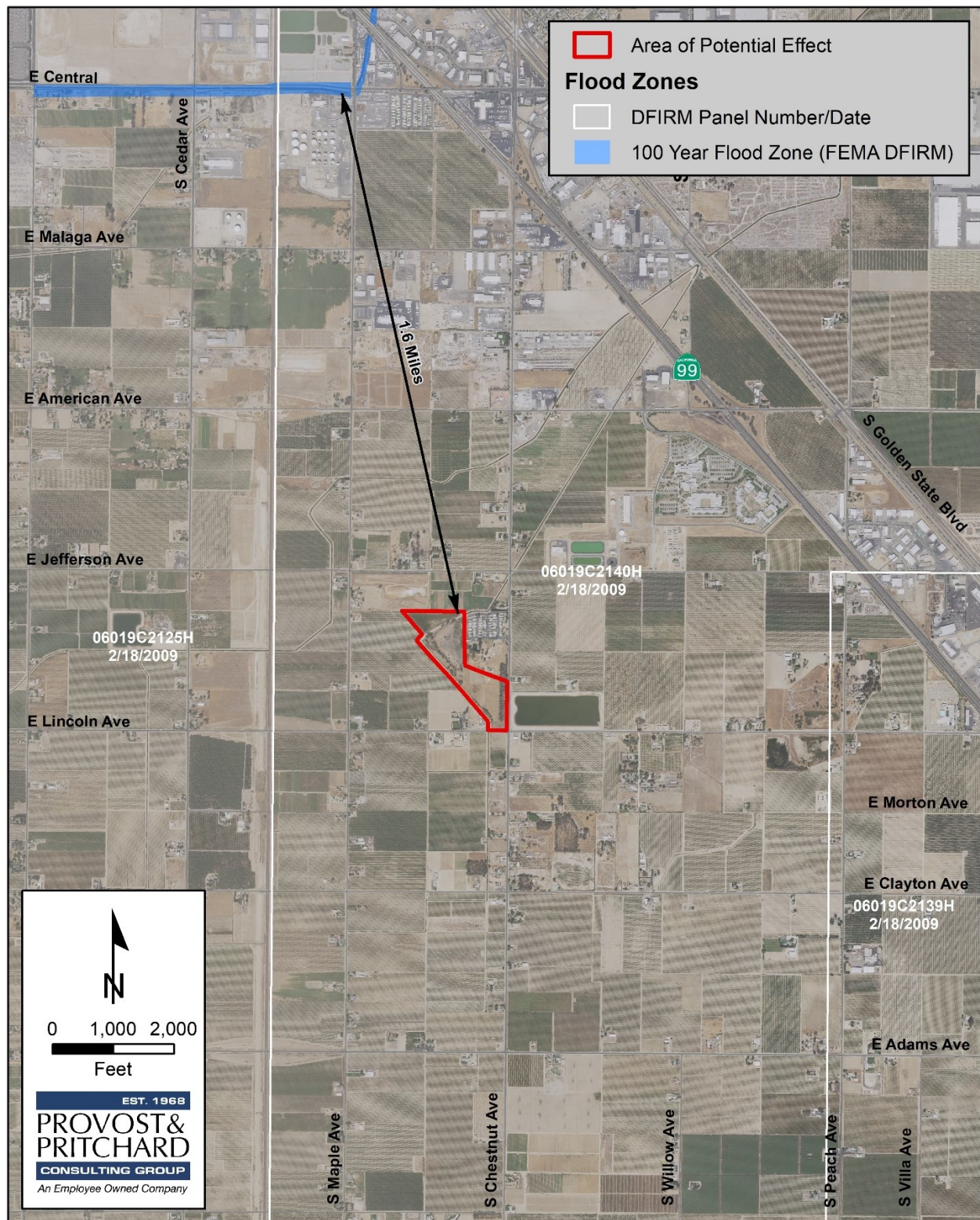


Figure 3-7. FEMA Flood Map

3.11 Land Use and Planning

Table 3-19. Land Use and Planning Impacts

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

3.11.1 Environmental Setting

The Project is located within southern Fresno County. The Project site is located approximately 1.07 miles east of SR 99, more specifically, the southeast corner of the APE sits at the intersection of E. Lincoln Ave and S. Chestnut Avenue. The Project site is bordered by agricultural farmland on the north and west borders, a small community of mobile homes borders the northeast corner and the Oleander Canal runs along the west side.

The Project is located within land zoned AE-20 (Exclusive Agriculture, 20-Acre minimum), by Fresno County. The Fresno County General Plan Land Use Map designates this area as Agriculture.¹³ All adjacent properties are similar zoning and General Plan designations.

3.11.2 Impact Assessment

a) Would the project physically divide an established community?

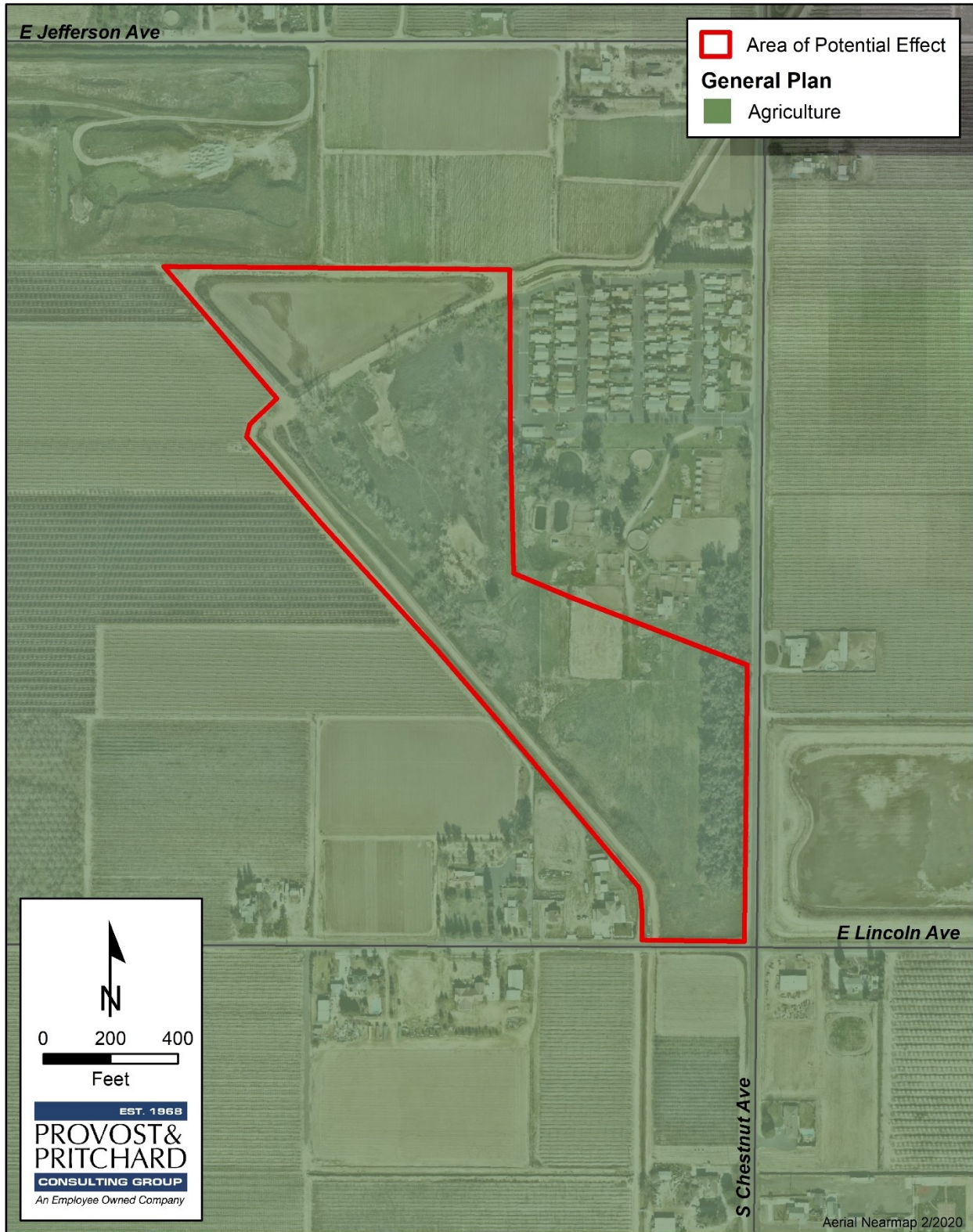
No Impact. The site of the Project is located across two parcels, approximately 30-acres in size. The Project site is zoned as AE-20 (Exclusive Agriculture, 20-acre minimum). Furthermore, the Project site is planned as agriculture by the Fresno County General Plan.¹⁴ The Project is within the unincorporated area of Fresno County, a region primarily consisting of agriculture with a small community of homes on the northeast border. The Project does not include the alteration of roads, trails, or paths that could be considered a connectivity network. Implementation of the Project would not divide an established community. There would be no impact.

b) Would the project cause a significant environmental conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact. The Project is located on land zoned AE-20 (Exclusive Agriculture, 20-acre minimum) and planned as Agriculture by Fresno County. The Project does not propose to expand into Fresno County right-of-way or other neighboring parcels. The purpose of the Project is to increase the amount of surface water recharge to the groundwater aquifer. As such, the Project would be considered a public facility and therefore would be consistent with all applicable plans, policies, ordinances, and regulations. Any impact would be less than significant.

¹³ (Fresno County General Plan Policy Document, 2000) Accessed May 18, 2020.

¹⁴ Ibid



5/27/2020 : G:\Fresno ID - 1038\103819015-FID Savory Pond\GIS\Map\CEQA\general_plan.mxd

Figure 3-8. General Plan Map

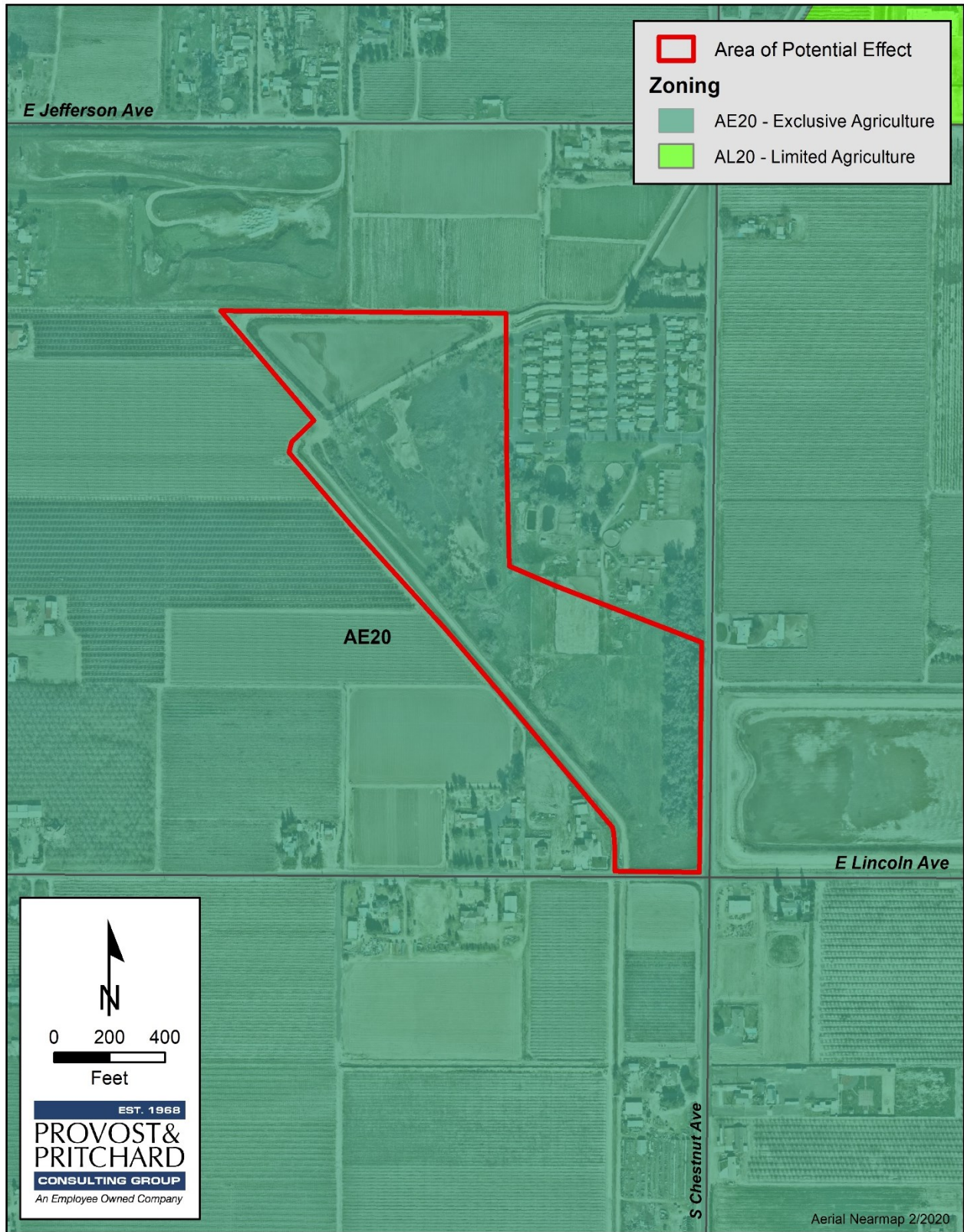


Figure 3-9. Zoning Map

3.12 Mineral Resources

Table 3-20. Mineral Resources Impacts

Mineral Resources				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.12.1 Environmental Setting

The Project is located in Fresno County, in the southern section of California's Great Valley Geomorphic Province, or Central Valley. Historically, Fresno County has been a leading producer of a variety of minerals including aggregate, fossil fuels, metals, and other materials used construction or in industrial processes. Currently, aggregate and petroleum are the County's most significant mineral resources. The Coalinga area, in western Fresno County, has been a valuable region for mineral resources as a top producer of commercial asbestos and home to extensive oil recovery operations.¹⁵

California Department of Conservation's Division of Oil, Gas, and Geothermal Resources maintains a database of oil wells in the Project area (DOGGR). According to the DOGGR Well Finder there is one plugged and abandoned well within approximately 2.5 miles of the Project site (Fresno Expl. Co., Inc Well No. 1). There are no active oil wells within two miles of the Project site.¹⁶

There are no known current or historic mineral resource extraction or recovery operations in the Project vicinity nor are there any known significant mineral resources onsite.

3.12.2 Impact Assessment

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 California Surface Mining and Reclamation Act of 1975 (SMARA) was created to address protecting the state's need for a continuing supply of mineral resources, while protecting public an environmental health. SMARA requires that all cities incorporate into their general plans mapped mineral resource designations approved by the State Mining and Geology Board. The State Geologist classifies land in California based on availability of mineral resources. Because available aggregate construction material is limited, five designations have been established for the classification of sand, gravel and crushed rock resources: Scientific Resource, Mineral Resource Zone 1, Mineral Resources Zone 2, and Mineral Resource Zone 3, and Mineral Resource Zone 4.

¹⁵ (Fresno County General Plan Background Report, 2000) Accessed May 19, 2020

¹⁶ (California Department of Conservation Well Finder, 2020) Accessed May 18, 2020

According to the Department of Conservation Special Report 158, *Mineral Land Classification: Aggregate Materials in the Fresno Production-Consumption Region Sanger Plate*, the Project is within the Mineral Resource Zone 3. Mineral Resource Zone 3 is an area where the significance of mineral deposits cannot be determined from the available data. However, there are no known sources of mineral resources extraction or recovery operations in the Project vicinity nor any known significant mineral resources onsite.¹⁷ Therefore, implementation of the Project would not result in the loss of availability of a known mineral resource since no known mineral resources occur in this area. Furthermore, the Project area has not been designated as a locally important mineral resource recovery site by a general plan, specific plan, or land use plan. There would be no impact.

¹⁷ (Fresno County General Plan Background Report, 2000) Accessed May 19, 2000

3.13 Noise

Table 3-21. Noise Impacts

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

3.13.1 Environmental Setting

The Project site is located in southern Fresno County, dominated primarily by agricultural production. SR 99 is the nearest highway, which is approximately 1.07-miles east of the Project site and SR 41 is approximately 2.37 miles to the west. The site is situated on the southeast corner of E. Lincoln and S. Chestnut Avenues. A small community of mobile homes borders the northeast corner as well as some sparse dwellings and buildings on the southwest corner of the project site. The Fresno Yosemite International Airport is located approximately 7-miles north, the Selma Municipal Airport is located approximately 6.2-miles southwest.

Fresno County Noise Control Ordinance¹⁸: Chapter 8.40 of the Fresno County Municipal Code contains the Noise Control Ordinance, which places limits on noise levels and hours of construction. Section 8.40.060

states that noise sources associated with construction activities are exempt from the provisions of the Noise Control Ordinance, as long as construction does not take place before 6:00 a.m. or after 9:00 p.m. on any day except Saturday or Sunday, or before 7:00 a.m. or after 5:00 p.m. on Saturday or Sunday.

3.13.2 Impact Assessment

a) Would the project result in 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?

Less than Significant Impact. The construction phase of the Project would involve temporary noise sources, predominately from off-road equipment, such as excavators, backhoe/loader, drilling rigs, concrete truck, and concrete pumper. The Project is located adjacent to agricultural lands, accustomed to noises associated with farm equipment. The Project would comply with the Fresno County Noise Control Ordinance referenced in **Section 3.13.1**. Operational maintenance activities would be on an as-needed basis with routine monitoring

¹⁸ (Fresno County California Code of Ordinances , 1978) Accessed May 19, 2020.

performed by existing staff and would not generate significant new noise. Any impacts would be mild and temporary and therefore, less than significant.

b) Would the project result in generation of excessive ground borne vibration or groundborne noise levels?

Less than Significant Impact. The construction phase of the Project would primarily consist of excavation and grading as part of development of the new basins. The Project is located in an area dominated by agricultural production with residential development on the northeast and southwest corners. Agricultural production commonly includes the use of off-road equipment and ground-disturbing activities regularly. During construction, Project-related construction activities would not vary substantially from the baseline conditions routinely experience on neighboring properties. Impacts would be less than significant.

c) For a project located within the vicinity of a private air strip 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? and,

No Impact. The Project is not located within an airport land use plan of an airport. The Fresno Yosemite International Airport is located approximately 7.8-miles north and the Selma Municipal Airport is approximately more than 6.2-miles of the Project. The Project does not involve the development of habitable structures or require the presence of permanent staff onsite. There would be no impact.

3.14 Population and Housing

Table 3-22. Population and Housing Impacts

Population and Housing				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.14.1 Environmental Setting

The Project is located in southern portion of Fresno County. The Project site is surrounded by agricultural lands, a small community of mobile homes to the northeast, and water infrastructure. The Project is located on land zoned AE-20 (Exclusive Agriculture, 20-acre minimum) and planned as Agriculture by the Fresno County General Plan.

According to 2019 Census data, Fresno County's population was 999,101 with an estimated percent change from 2010 to 2019 of 7.4%. As of 2014 to 2018, there was an average of 304,624 households with an average of 3.16 persons per house.¹⁹

3.14.2 Impact Assessment

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?

No Impact. The Project involves construction of approximately 24-acres of basins and related infrastructure. The goal of the Project is not to induce population growth, but to increase the amount of groundwater recharge for the underlying groundwater aquifer. The Project would not encourage population growth directly or indirectly beyond that previously analyzed by the Fresno County General Plan. No housing or habitable structures would be built, nor would any be removed. Implementation of the Project would not result in displacement of people or existing housing. Therefore, there would be no impact.

¹⁹ (United States Census Bureau, 2019) Accessed May 15, 2020.

3.15 Public Services

Table 3-23. Public Services Impacts

Public Services				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.15.1 Environmental Setting

Fire Protection: The area of Fresno County that the project is located in served by the Fresno County Fire Protection District. The nearest fire station is Easton Station 89, which is approximately 2.15 miles west of the Project.

Police Protection: The Fresno County Sheriff's Department currently has 329 sworn officers serving the unincorporated population of Fresno County, for a ratio of 1.89 officers per 1,000 residents.²⁰ Police protection is provided by the Fresno County Sheriff. The closest patrol station is located 7.78 miles east of the APE. The closest law enforcement agency to the Project site is Fowler City Police Department which is located approximately 2.5 miles southeast.

Schools: Public school services are provided throughout Fresno County by 35 school districts. The nearest school is the Malaga Elementary School, approximately 1.75 miles northwest of the Project. The next closest school is Washington Colony Elementary School located 2.58 miles west of the APE.

Parks: Regional recreational facilities within the County include ten developed and three undeveloped park sites, five fishing access areas, and boating facility. The nearest parks to the Project site are Panzak Park located 3.55 miles southeast and Jensen West Regional Park approximately 5.37 miles northwest of the Project. The nearest County operated park is the Avocado Lake Park is approximately 20 miles east-northeast of the Project.

²⁰ (Fresno County General Plan Background Report, 2000) Accessed May 19, 2020

Landfills: Fresno County operates American Avenue Landfill located approximately 23 miles west, a solid waste disposal facilities, or landfills. The closest operating transfer and manufacturing facility is Mid Valley Disposal located approximately 18.51 miles northwest of the Project site.

3.15.2 Impact Assessment

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:

No Impact. The Project would not require the addition or alteration of any public services. The site is within the south-central portion of Fresno County and would utilize existing services provided by the County. There would be no impact.

Fire Protection – The Project site would continue to be served by the Fresno County Fire Protection District, Easton Station 89 located approximately 2.15 miles west of the Project site. No structures are proposed for this project, therefore, there would be no impact to public fire services.

Police Protection – Fresno County would continue to provide sheriff protection services to the Project site upon implementation of the Project. Emergency response is adequate to the Project site. The closest sheriff station is located in Fresno approximately 7.78-miles east of the Project site. No residential or office construction is proposed for this Project and no additional police protection would be required. There would be no impact.

Schools – Malaga Elementary School is approximately 1.75 miles northwest of the APE. Washington Colony Elementary School is located approximately 2.58 miles west of the APE. Implementation would not include construction of any residential structures. The Project would not result in an increase of population that would require additional school facilities; therefore, there would be no impact.

Parks and other public facilities –As the Project would not induce population growth, the Project would not create a need for additional park or recreational services. Avocado Lake Park is the nearest regional park, located approximately 26.3-miles east-northeast of the Project site. The nearest park is Panzak Park located approximately 3.55-miles southeast of the Project. No public facilities would be impacted by this Project. The closest landfill is American Avenue Landfill approximately 23-miles northwest of the project site. The closest manufacturing and transfer station is the Mid Valley Disposal located at 2721 S. Elm Ave, which is 18.51 miles northwest of the Project.

3.16 Recreation

Table 3-24. Recreation Impacts

Recreation				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.16.1 Environmental Setting

Fresno County has several regional parks, as well as State and national parks, national forest, wilderness areas, and other resources. Regional recreational facilities within the County include ten developed and three undeveloped park sites, five fishing access areas, and boating facility. Avocado Lake Park is the nearest regional park, located approximately 26.3-miles east-northeast of the Project site, Panzak Park is approximately 3.55-miles southeast and Jensen West Regional Park is approximately 5.37-miles northwest of the Project.

3.16.2 Impact Assessment

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 Project includes the construction an approximately 24-acres of basins for groundwater recharging. It would not increase the demand for recreational facilities or put a strain on the existing recreational facilities. No population growth would be associated with the Project or be necessitated by the Project. Furthermore, the Project does not include recreational facilities. As there is no population growth associated with the Project, construction or expansion of nearby recreational facilities would not be necessary. There would be no impact.

3.17 Transportation

Table 3-25. Transportation/Traffic Impacts

Transportation/Traffic				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.17.1 Environmental Setting

Fresno County's circulation system consists of a roadway network that is primarily rural in character, with exception of the urbanized area surrounding the cities of Fresno and Clovis and various smaller communities in the southern and western parts of the county. The most important inter-regional roadways within the county are the state highways particularly SR 99, SR 41, and Interstate 5.

The Project site is located in southern Fresno County, specifically on the southeast corner of E. Lincoln Avenue and S. Chestnut Avenue. The Project vicinity is dominated by agricultural uses, sparse rural residential and farmland use, a small mobile home community on the northeast corner and water infrastructure. SR 99 is the nearest highway, approximately 1.07-miles east of the Project site. Both streets are adjacent to the Project sites south and east property boundary. There are no public improvements proposed along the property boundary. Traffic generation after project implementation would be minimal and dedicated only to basin maintenance on an as-needed basis.

3.17.2 Impact Assessment

a) Would the project conflict with a 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)?

Less than Significant Impact. The Project includes the construction of an approximately 24-acres of groundwater recharge basins for FID. Construction traffic associated with the Project would be minimal and temporary, lasting approximately five months. Operational traffic consists of as-needed maintenance trips. No road improvements are proposed as a part of the Project. There would not be a significant adverse effect to existing roadways in the area.

Construction associated with the Project would be restricted to the Project site and it would not intersect any roadways, or pedestrian or bicycle paths. These construction-related impacts would be temporary and there would be no impacts to the surrounding transportation network. Road closures and detours are not anticipated as part of construction.

There is no population growth associated with the Project, nor would implementation of the Project result in an increase of staff or drivers utilizing roadways in the area. Therefore, implementation of the Project would not increase the demand for any changes to congestion management programs or interfere with existing level of service standards during the operational phase. Construction-related roadway interferences would be less than significant in nature.

c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. No new roadway design features are associated with the Project. As mentioned in Impact Assessments a and b above, all potential disturbances to roadways would be temporary. Therefore, there would be no impact.

d) Result in inadequate emergency access?

Less than Significant Impact. As mentioned above in Impact Assessments a, b, and c, the Project does not propose new roadway design features or permanent alterations to roadways. All potential disturbances to roadways during construction would be temporary. Road closures and detours are not anticipated as part of the construction phase of the Project. The operational phase of the Project would have no effect on roadways or emergency access. Therefore, overall potential Project-related impacts to emergency access on local roadways would be considered less than significant.

3.18 Tribal Cultural Resources

Table 3-26. Tribal Cultural Resources Impacts

Tribal Cultural Resources				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.18.1 Environmental Setting

The Proposed Project site lies within Fresno County, which occupies an archeologically and historically rich part of the San Joaquin Valley.

3.18.1.1 Local

Fresno County General Plan²¹: The Fresno County General Plan sets forth the following goals and policies that protect the tribal cultural resources of the County and which have potential relevance to the Project's CEQA review:

Goal OS-J: To identify, protect, and enhance Fresno County's important historical, archeological, paleontological, geological, and cultural sites and their contributing environment.

Policy OS-J.2: Historic Resources Consideration. The County shall consider historic resources during preparation or evaluation of plans and discretionary development projects.

(Fresno County General Plan Policy Document, 2000) Accessed May 19, 2020.

Policy OS-J.3 The County shall solicit the views of the local Native American community in cases where development may result in disturbance to sites containing evidence of Native American activity and/or sites of cultural importance.

3.18.2 Impact Assessment

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a-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)

a-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, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant Impact with Mitigation Incorporated. The District, as a public lead agency has not received any formal requests for notification from any State tribes, pursuant to AB52. A records search was conducted at the Southern San Joaquin Valley Archaeological Information Center, California State University, Bakersfield. A record search of the Native American Heritage Commission (NAHC) Sacred Lands File was also conducted, which resulted in a declaration that no sacred sites or tribal cultural resources are known to exist within the Project site or in the vicinity.

In addition to the record search of the Sacred Lands File, NAHC provided a list of 13 local Native American Tribal contacts, representing 10 different Native American Tribes who may have knowledge of cultural resources in the vicinity or general interest in the Project. The following 13 Tribal contacts were communicated with in writing via U.S. Mail with a letter dated May 7, 2020 informing them of the Proposed Project.

1. *Big Sandy Rancheria of Western Mono Indians, Elizabeth D. Kipp, Chairperson*
2. *Cold Springs Rancheria, Carol Bill, Chairperson*
3. *Dumna Wo-Wah Tribal Government, Robert Ledger SR, Tribal Chairperson*
4. *Dunlap Band of Mono Indians, Benjamin Chrley Jr., Tribal Chair*
5. *Dunlap Band of Mono Indians, Dick Charley, Tribal Secretary*
6. *Kings River Choinumni Farm Tribe, Stan Alec*
7. *North Fork Mono Tribe, Ron Goode, Chairperson*
8. *Santa Rosa Indian Community of the Santa Rosa Rancheria, Rueben Barrios Sr., Chairperson*
9. *Table Mountain Rancheria of California, Leanne Walker-Grant, Chairperson*
10. *Table Mountain Rancheria of California, Bob Pennell, Cultural Resources Director*
11. *Traditional Choinumni Tribe, David Alvarez, Chairperson*
12. *Traditional Choinumni Tribe, Rick Osbourne, Cultural Resources*
13. *Wuksache Indian Tribe/Eshom Valley Band, Kenneth Woodrom, Chairperson*

No written responses were received. All Tribal correspondence is included within **Appendix C** to this initial study.

Although it is unlikely that archeological remains would occur during construction or operation of the Proposed Project, CUL-1 above is to be considered.

3.19 Utilities and Service Systems

Table 3-27. Utilities and Service Systems Impacts

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

3.19.1 Environmental Setting

3.19.1.1 Water Supply

The Project lies entirely within the Kings Groundwater Subbasin of the San Joaquin Valley Groundwater Basin.²² Declines in groundwater basin storage and groundwater overdraft are recurring problems in the Central Valley. Measures for ensuring the continued availability of groundwater to meet demands have been identified and planned in several areas of the county. The measures include groundwater conservation and recharge, and supplementing or replacing groundwater sources for irrigation with surface water.

3.19.1.2 Wastewater Collection and Treatment

The nearest municipal wastewater treatment facilities are the Parlier Wastewater Treatment Facility, approximately three miles southeast of the Project, Sanger Treatment Facility approximately 3.5 miles northeast of the Project, and Fresno Wastewater Treatment and Collection System, Facility, located approximately 18 miles west of the Project. The Project does not propose to create wastewater during operation. There would be no need to connect to a wastewater treatment system.

²² (California Department of Water Resources, 2018) Accessed May 19,2020.

3.19.1.3 Landfills

Fresno County operates American Avenue Landfill, an active solid waste disposal and recycling facility, or landfill, approximately 23-miles west of the Project. Portions of the unincorporated areas of the County use the Clovis Landfill and the Orange Avenue Landfill.

3.19.2 Impact Assessment

a) Require or result in the construction of new water or wastewater treatment facilities or (California Department of Water Resources, 2018) expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact. The Project would not exceed wastewater treatment requirements or require new facilities. The Project consists of the construction of the FID Savory Pond. The project consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20-acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing, to be removed. The Project would not generate wastewater or require expansion of existing facilities. There would be no impact.

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

Less than Significant Impact. The Project intends to reduce groundwater overdraft within FID by construction of the Project. The Project would create an average annual water supply of approximately 1,320 AF. Based on infiltration of 0.5 ft/day, operating 126 days every three years, the project would recharge an average annual water supply increase of approximately 400 AF (50 cfs turnout). The Project would be diverting surface water from existing District facilities and accumulating the water in the basins with the intention of recharging. Water supplies are not necessary to service the project however the project is beneficial and will provide groundwater recharge which will be necessary during normal, dry and multiple dry years. Impacts would be less than significant.

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

No Impact. The Project does not propose any commercial, industrial, or residential structures. Therefore, it would not create a wastewater demand on any wastewater treatment provider, nor would it require any wastewater treatment facilities at the Project site, so there would be no need for any sort of capacity determination by a wastewater treatment provider. There would be no impact.

d) Would the project 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?

Less than Significant Impact. There would be no solid waste associated with the operational phase of the Project. Waste associated with construction would be minimal and temporary, most of which would be recycled. Therefore, impacts would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. Implementation of the Project involves the construction of approximately 24-acres of groundwater recharge basins. The Project is not anticipated to produce any solid waste. Furthermore, the Project would continue to comply with any federal, State, and local regulations regarding solid waste. There would be no impact.

3.20 Wildfire

Table 3-28. Wildfire Impacts

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

3.20.1 Environmental Setting

The Project site is in a flat urbanized area of the Central San Joaquin Valley. The APE is approximately 30-acres and is located north of Lincoln Ave and west of Chestnut Ave. The project parcels will need to be cleared of vegetation, trees, fencing, structures, and other debris. The Project will include perimeter fencing with FID standard wire mesh fence, except where the basin parallels the canal or mobile home park. Drive gates will be placed on the canal bank for access. All improvements will utilize existing PG&E and no new services will be needed. No structures are being constructed as part of the Project, and the Project is not considered to be population growth inducing.

3.20.2 Impact Assessment

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

No Impact. The project includes construction of recharge basins and no habitable structures are proposed. The northern portion of the APE is local responsibility with a moderate fire severity risk. Additionally, the rest of the APE is a local responsibility area, classified as non-wildland/non-urban zone. The closest state responsibility areas or lands classified as moderate hazard severity zones is located 15.79 miles east of the APE. Additionally, the site is not located in the proximity of any lands that are classified as Very High Fire Hazard Severity Zone (FHSZ). Therefore, further analysis of the Projects potential impacts to wildfire are not warranted. There would be no impact.

3.21 CEQA Mandatory Findings of Significance

Table 3-29. Mandatory Findings of Significance Impacts

Mandatory Findings of Significance				
Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.21.1 Impact Assessment

- 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?

Less than Significant Impact with Mitigation Incorporated. The analysis conducted in this Initial Study/Mitigated Negative Declaration results in a determination that the Project, with incorporation of mitigation measures, would have a less than significant effect on the environment. The potential for impacts to biological resources and cultural resources from the implementation of the proposed Project would be less than significant with the incorporation of the mitigation measures discussed in **Chapter 4, Mitigation Monitoring and Reporting Program**. Accordingly, the Project would involve no potential for significant impacts through the degradation of the quality of the environment, the reduction in the habitat or population of fish or wildlife, including endangered plants or animals, the elimination of a plant or animal community or example of a major period 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)?**

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. The Project would include the construction of approximately 324-acres of basins, onsite piping and appurtenances for diverting water into the basins. No additional roads would be constructed as a result of the Project, nor would any additional public services be required. The Project is intended to improve water quality and would not result in direct or indirect population growth. Therefore, implementation of the Project would not result in significant cumulative impacts and all potential impacts would be reduced to less than significant through the implementation of mitigation measures and basic regulatory requirements incorporated into future Project design.

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

Less than Significant Impact. The Project would include the construction of approximately 24-acres basins, onsite piping and appurtenances for diverting water into the basins. The Project in and of itself would not create a significant hazard to the public or the environment. On the contrary, implementation of the Project would help with groundwater recharge issues experienced by FID . Construction-related air quality/dust exposure impacts could occur temporarily as a result of project construction. However, implementation of basic regulatory requirements identified in this IS/MND would ensure that impacts are less than significant. Therefore, the proposed Project would not have any direct or indirect adverse impacts on humans. This impact would be less than significant.

Chapter 4 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 Fresno Irrigation District Savory Pond Project (Project) in Fresno County. The MMRP lists mitigation measures recommended in the IS/MND for the Project and identifies monitoring and reporting requirements.

Table 4-1 presents the mitigation measures identified for the proposed Project. Each mitigation measure is numbered with a symbol indicating the topical section to which it pertains, a hyphen, and the impact number. For example, AIR-2 would be the second mitigation measure identified in the Air Quality analysis of the IS/MND.

The first column of **Table 4-1** identifies the mitigation measure. The second column, entitled “When Monitoring is to Occur,” identifies the time the mitigation measure should be initiated. The third column, “Frequency of Monitoring,” identifies the frequency of the monitoring of the mitigation measure. The fourth column, “Agency Responsible for Monitoring,” names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last columns would be used by FID to ensure that individual mitigation measures have been complied with and monitored.

Table 4-1. Mitigation Monitoring and Reporting Program

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
Biological Resources					
Mitigation Measure NEST-1a: Avoidance					
The Project's construction activities shall occur, if feasible, between September 16 and January 31 (outside of nesting bird season) in an effort to avoid impacts to nesting birds.	Prior to construction	During nesting season	FID		
Mitigation Measure NEST-1b: Pre-Construction Survey					
If activities must occur within nesting bird season (February 1 to September 15), a qualified biologist shall conduct pre-construction surveys for Swainson's hawk nests onsite and within a 0.5-mile radius. These surveys will be conducted in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee, 2000) or current guidance. In addition to the focused Swainson's hawk surveys, a qualified biologist shall conduct a pre-construction survey for all other nesting birds within 30 days prior to the start of construction. The survey shall include the proposed work area and surrounding lands within 500 feet. All raptor nests will be considered "active" upon the nest-building stage.	February 1 to September 15	30-days prior	FID		
Mitigation Measure NEST-1c: Establish Buffers					
On discovery of any active nests near work areas, the biologist shall determine appropriate construction setback distances based on applicable CDFW and/or USFWS guidelines and/or the biology of the species in question. Specifically, a 0.5-mile disturbance-free buffer shall be implemented around active Swainson's hawk nests. Construction buffers shall be identified with flagging, fencing, or other easily visible means, and shall be maintained until the biologist has determined that the nestlings have fledged and are no longer dependent on the nest.	On discovery	During Construction activities	FID		

Chapter Four: Mitigation Monitoring and Reporting Program
Fresno Irrigation District Savory Pond Project

Mitigation Monitoring and Reporting Program					
Mitigation Measure/Condition of Approval	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
Cultural Resources					
Mitigation Measure CUL-1: Archaeological Resources					
In the event that archaeological resources are encountered at any time during development or ground-moving activities within the entire project area, all work in the vicinity of the find shall halt until a qualified archaeologist can assess the discovery. The District shall implement all recommendations of the archaeologist necessary to avoid or reduce to a less than significant level potential impacts to cultural resource. Appropriate actions could include a Data Recovery Plan or preservation in place.	In the event archaeological resources are uncovered	During excavation	FID		
Mitigation Measure CUL-2: Human Remains					
If human remains are uncovered, or in any other case when human remains are discovered during construction, the Fresno County Coroner is to be notified to arrange proper treatment and disposition. If the remains are identified—on the basis of archaeological context, age, cultural associations, or biological traits—as those of a Native American, California Health and Safety Code 7050.5 and Public Resource Code 5097.98 require that the coroner notify the NAHC within 24 hours of discovery. The NAHC would then identify the Most Likely Descendent who would determine the manner in which the remains are treated.	In the event human remains are uncovered	During excavation	FID		

Chapter 5 References

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Chapter 6 List of Preparers

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Appendix A

Air Quality and Greenhouse Gas Emissions Evaluation Report

FID Savory Pond - Fresno County, Annual

FID Savory Pond

Fresno County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	30.00	Acre	30.00	1,306,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	45
Climate Zone	3			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - construction involves the removal of trees and the redesign of two existing basins. there will be some new check structures installed. Construction is expected to take place from October 2020 to February 2021.

Demolition -

Trips and VMT - Estimating 20 truck trips to haul away trees from the site.

Construction Off-road Equipment Mitigation -

FID Savory Pond - Fresno County, Annual

Table Name	Column Name	Default Value	New Value
tblTripsAndVMT	HaulingTripLength	20.00	10.00
tblTripsAndVMT	HaulingTripNumber	0.00	20.00

2.0 Emissions Summary

FID Savory Pond - Fresno County, Annual

2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1059	1.0760	0.6505	1.1900e-003	0.2622	0.0534	0.3156	0.1167	0.0494	0.1661	0.0000	104.4328	104.4328	0.0307	0.0000	105.1990
2021	0.1063	1.1325	0.8750	1.6600e-003	0.1823	0.0506	0.2329	0.0724	0.0466	0.1189	0.0000	145.6665	145.6665	0.0458	0.0000	146.8117
Maximum	0.1063	1.1325	0.8750	1.6600e-003	0.2622	0.0534	0.3156	0.1167	0.0494	0.1661	0.0000	145.6665	145.6665	0.0458	0.0000	146.8117

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.1059	1.0760	0.6505	1.1900e-003	0.1201	0.0534	0.1735	0.0531	0.0494	0.1024	0.0000	104.4327	104.4327	0.0307	0.0000	105.1988
2021	0.1063	1.1325	0.8750	1.6600e-003	0.0849	0.0506	0.1355	0.0333	0.0466	0.0799	0.0000	145.6663	145.6663	0.0458	0.0000	146.8115
Maximum	0.1063	1.1325	0.8750	1.6600e-003	0.1201	0.0534	0.1735	0.0531	0.0494	0.1024	0.0000	145.6663	145.6663	0.0458	0.0000	146.8115

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	53.88	0.00	43.67	54.30	0.00	36.02	0.00	0.00	0.00	0.00	0.00	0.00

FID Savory Pond - Fresno County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-15-2020	1-14-2021	1.4279	1.4279
2	1-15-2021	4-14-2021	0.9927	0.9927
		Highest	1.4279	1.4279

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	0.1118	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.4000e-004	5.4000e-004	0.0000	0.0000	5.7000e-004
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1118	0.0000	2.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.4000e-004	5.4000e-004	0.0000	0.0000	5.7000e-004

FID Savory Pond - Fresno County, Annual

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	0.1118	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.4000e-004	5.4000e-004	0.0000	0.0000	5.7000e-004
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1118	0.0000	2.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	5.4000e-004	5.4000e-004	0.0000	0.0000	5.7000e-004

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

3.0 Construction Detail**Construction Phase**

FID Savory Pond - Fresno County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/15/2020	11/25/2020	5	30	
2	Site Preparation	Site Preparation	11/26/2020	12/23/2020	5	20	
3	Grading	Grading	12/24/2020	2/24/2021	5	45	
4	Paving	Paving	2/25/2021	4/14/2021	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 30

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

FID Savory Pond - Fresno County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Paving	Pavers	2	8.00	130	0.42
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	20.00	10.80	7.30	10.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

FID Savory Pond - Fresno County, Annual

3.2 Demolition - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0497	0.4980	0.3263	5.8000e-004		0.0249	0.0249		0.0231	0.0231	0.0000	50.9979	50.9979	0.0144	0.0000	51.3578
Total	0.0497	0.4980	0.3263	5.8000e-004	0.0000	0.0249	0.0249	0.0000	0.0231	0.0231	0.0000	50.9979	50.9979	0.0144	0.0000	51.3578

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	5.0000e-005	1.9200e-003	2.3000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.4414	0.4414	6.0000e-005	0.0000	0.4431
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	9.7000e-004	6.2000e-004	6.2500e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8100e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5569	1.5569	4.0000e-005	0.0000	1.5579
Total	1.0200e-003	2.5400e-003	6.4800e-003	2.0000e-005	1.8900e-003	2.0000e-005	1.9000e-003	5.0000e-004	1.0000e-005	5.2000e-004	0.0000	1.9983	1.9983	1.0000e-004	0.0000	2.0010

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3.2 Demolition - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0497	0.4980	0.3263	5.8000e-004		0.0249	0.0249		0.0231	0.0231	0.0000	50.9979	50.9979	0.0144	0.0000	51.3578
Total	0.0497	0.4980	0.3263	5.8000e-004	0.0000	0.0249	0.0249	0.0000	0.0231	0.0231	0.0000	50.9979	50.9979	0.0144	0.0000	51.3578

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	5.0000e-005	1.9200e-003	2.3000e-004	0.0000	9.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	0.0000	3.0000e-005	0.0000	0.4414	0.4414	6.0000e-005	0.0000	0.4431
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	9.7000e-004	6.2000e-004	6.2500e-003	2.0000e-005	1.8000e-003	1.0000e-005	1.8100e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.5569	1.5569	4.0000e-005	0.0000	1.5579
Total	1.0200e-003	2.5400e-003	6.4800e-003	2.0000e-005	1.8900e-003	2.0000e-005	1.9000e-003	5.0000e-004	1.0000e-005	5.2000e-004	0.0000	1.9983	1.9983	1.0000e-004	0.0000	2.0010

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3.3 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0408	0.4242	0.2151	3.8000e-004		0.0220	0.0220		0.0202	0.0202	0.0000	33.4307	33.4307	0.0108	0.0000	33.7010
Total	0.0408	0.4242	0.2151	3.8000e-004	0.1807	0.0220	0.2026	0.0993	0.0202	0.1195	0.0000	33.4307	33.4307	0.0108	0.0000	33.7010

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	4.9000e-004	5.0000e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2455	1.2455	3.0000e-005	0.0000	1.2463
Total	7.8000e-004	4.9000e-004	5.0000e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2455	1.2455	3.0000e-005	0.0000	1.2463

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3.3 Site Preparation - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0813	0.0000	0.0813	0.0447	0.0000	0.0447	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0408	0.4242	0.2151	3.8000e-004		0.0220	0.0220		0.0202	0.0202	0.0000	33.4306	33.4306	0.0108	0.0000	33.7009
Total	0.0408	0.4242	0.2151	3.8000e-004	0.0813	0.0220	0.1033	0.0447	0.0202	0.0649	0.0000	33.4306	33.4306	0.0108	0.0000	33.7009

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	4.9000e-004	5.0000e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2455	1.2455	3.0000e-005	0.0000	1.2463
Total	7.8000e-004	4.9000e-004	5.0000e-003	1.0000e-005	1.4400e-003	1.0000e-005	1.4500e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2455	1.2455	3.0000e-005	0.0000	1.2463

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3.4 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0777	0.0000	0.0777	0.0164	0.0000	0.0164	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0134	0.1506	0.0959	1.9000e-004		6.5200e-003	6.5200e-003		6.0000e-003	6.0000e-003	0.0000	16.3453	16.3453	5.2900e-003	0.0000	16.4775
Total	0.0134	0.1506	0.0959	1.9000e-004	0.0777	6.5200e-003	0.0842	0.0164	6.0000e-003	0.0224	0.0000	16.3453	16.3453	5.2900e-003	0.0000	16.4775

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	2.6000e-004	1.6000e-004	1.6700e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4152	0.4152	1.0000e-005	0.0000	0.4154
Total	2.6000e-004	1.6000e-004	1.6700e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4152	0.4152	1.0000e-005	0.0000	0.4154

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3.4 Grading - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0350	0.0000	0.0350	7.3700e-003	0.0000	7.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0134	0.1506	0.0959	1.9000e-004		6.5200e-003	6.5200e-003		6.0000e-003	6.0000e-003	0.0000	16.3453	16.3453	5.2900e-003	0.0000	16.4774
Total	0.0134	0.1506	0.0959	1.9000e-004	0.0350	6.5200e-003	0.0415	7.3700e-003	6.0000e-003	0.0134	0.0000	16.3453	16.3453	5.2900e-003	0.0000	16.4774

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	2.6000e-004	1.6000e-004	1.6700e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4152	0.4152	1.0000e-005	0.0000	0.4154
Total	2.6000e-004	1.6000e-004	1.6700e-003	0.0000	4.8000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4152	0.4152	1.0000e-005	0.0000	0.4154

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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					0.1771	0.0000	0.1771	0.0710	0.0000	0.0710	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0817	0.9048	0.6021	1.2100e-003		0.0387	0.0387		0.0356	0.0356	0.0000	106.2652	106.2652	0.0344	0.0000	107.1244
Total	0.0817	0.9048	0.6021	1.2100e-003	0.1771	0.0387	0.2158	0.0710	0.0356	0.1066	0.0000	106.2652	106.2652	0.0344	0.0000	107.1244

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	1.5600e-003	9.5000e-004	9.8300e-003	3.0000e-005	3.1200e-003	2.0000e-005	3.1400e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.6061	2.6061	6.0000e-005	0.0000	2.6077
Total	1.5600e-003	9.5000e-004	9.8300e-003	3.0000e-005	3.1200e-003	2.0000e-005	3.1400e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.6061	2.6061	6.0000e-005	0.0000	2.6077

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3.4 Grading - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0797	0.0000	0.0797	0.0320	0.0000	0.0320	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0817	0.9048	0.6021	1.2100e-003		0.0387	0.0387		0.0356	0.0356	0.0000	106.2651	106.2651	0.0344	0.0000	107.1243
Total	0.0817	0.9048	0.6021	1.2100e-003	0.0797	0.0387	0.1184	0.0320	0.0356	0.0676	0.0000	106.2651	106.2651	0.0344	0.0000	107.1243

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	1.5600e-003	9.5000e-004	9.8300e-003	3.0000e-005	3.1200e-003	2.0000e-005	3.1400e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.6061	2.6061	6.0000e-005	0.0000	2.6077
Total	1.5600e-003	9.5000e-004	9.8300e-003	3.0000e-005	3.1200e-003	2.0000e-005	3.1400e-003	8.3000e-004	2.0000e-005	8.5000e-004	0.0000	2.6061	2.6061	6.0000e-005	0.0000	2.6077

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3.5 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	0.0220	0.2261	0.2564	4.0000e-004		0.0119	0.0119		0.0109	0.0109	0.0000	35.0411	35.0411	0.0113	0.0000	35.3244
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0220	0.2261	0.2564	4.0000e-004		0.0119	0.0119		0.0109	0.0109	0.0000	35.0411	35.0411	0.0113	0.0000	35.3244

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	1.0500e-003	6.4000e-004	6.6200e-003	2.0000e-005	2.1000e-003	1.0000e-005	2.1100e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7541	1.7541	4.0000e-005	0.0000	1.7552
Total	1.0500e-003	6.4000e-004	6.6200e-003	2.0000e-005	2.1000e-003	1.0000e-005	2.1100e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7541	1.7541	4.0000e-005	0.0000	1.7552

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3.5 Paving - 2021**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	0.0220	0.2261	0.2564	4.0000e-004		0.0119	0.0119		0.0109	0.0109	0.0000	35.0411	35.0411	0.0113	0.0000	35.3244
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0220	0.2261	0.2564	4.0000e-004		0.0119	0.0119		0.0109	0.0109	0.0000	35.0411	35.0411	0.0113	0.0000	35.3244

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	1.0500e-003	6.4000e-004	6.6200e-003	2.0000e-005	2.1000e-003	1.0000e-005	2.1100e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7541	1.7541	4.0000e-005	0.0000	1.7552
Total	1.0500e-003	6.4000e-004	6.6200e-003	2.0000e-005	2.1000e-003	1.0000e-005	2.1100e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7541	1.7541	4.0000e-005	0.0000	1.7552

4.0 Operational Detail - Mobile

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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	0.0000	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
Unmitigated	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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Non-Asphalt Surfaces	0.487139	0.031901	0.169199	0.121386	0.017033	0.004732	0.033028	0.124746	0.002366	0.001590	0.005154	0.001097	0.000629

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

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5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

Mitigated

[illegible]

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	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**

FID Savory Pond - Fresno County, Annual

	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	0.1118	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.4000e-004	5.4000e-004	0.0000	0.0000	5.7000e-004
Unmitigated	0.1118	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.4000e-004	5.4000e-004	0.0000	0.0000	5.7000e-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	0.0273					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0845					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.4000e-004	5.4000e-004	0.0000	0.0000	5.7000e-004
Total	0.1118	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.4000e-004	5.4000e-004	0.0000	0.0000	5.7000e-004

FID Savory Pond - Fresno County, Annual

6.2 Area by SubCategory**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	0.0273					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0845					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.0000e-005	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.4000e-004	5.4000e-004	0.0000	0.0000	5.7000e-004
Total	0.1118	0.0000	2.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	5.4000e-004	5.4000e-004	0.0000	0.0000	5.7000e-004

7.0 Water Detail**7.1 Mitigation Measures Water**

FID Savory Pond - Fresno County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

FID Savory Pond - Fresno County, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

FID Savory Pond - Fresno County, Annual

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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

FID Savory Pond - Fresno County, Annual

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 Resources Evaluation

Biological Evaluation

FRESNO IRRIGATION DISTRICT

SAVORY POND PROJECT

Brooke Fletcher, Biologist

PROVOST & PRITCHARD CONSULTING GROUP | 286 CROMWELL, FRESNO CA 93711



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I. Introduction

Fresno Irrigation District (FID or District) is composed of approximately 245,000 acres within Fresno County, including the Fresno-Clovis metropolitan area, and the District maintains over 700 miles of canal and pipeline facilities. In a normal year, FID diverts approximately 575,000 acre feet of water from the Kings River and the Friant Division of the Central Valley Project. Most of this water is delivered to agricultural users, although an ever-increasing share of the District's water supply is used for groundwater recharge.

The conversion of agricultural lands to high density urban uses in the expanding Fresno-Clovis metropolitan area has reduced the capacity to utilize surface water. A local overdraft has developed in and around the urban area. The City of Fresno is expanding its surface water treatment capacity to utilize surface water for municipal uses to help correct the groundwater overdraft, but additional recharge facilities in the District are still needed. As part of their Groundwater Sustainability Plan, FID is proposing to expand the existing Savory Pond basin along the Oleander Canal to an approximately 25-acre recharge basin northwest of the intersection of Lincoln and Chestnut Avenues in Fresno County, California (Project).

The following technical report, prepared by Provost & Pritchard Consulting Group, in compliance with the California Environmental Quality Act (CEQA), includes a description of the biological resources present or with potential to occur within the Project site and surrounding areas and evaluates potential Project-related impacts to those resources.

Project Description

FID plans to expand the existing Savory Pond basin along the Oleander Canal to an approximately 25-acre recharge basin northwest of the intersection of Lincoln and Chestnut Avenues in Fresno County, California. As envisioned, the Project will consist of two single cell recharge basins split by the Oleander Canal culvert. The existing northern pond will be used as a sediment settling pond. Surface water will be diverted into the pond in the existing location and will be directed to a newly constructed siphon culvert connecting the two basins. The culvert will be located near the eastern corner of the existing northern pond, near the upstream culvert structure.

Due to the grade differential between the high-water level in the Oleander Canal and top of bank elevation of the basin (approximately 5 feet), the basin will not be designed to allow the water levels between the canal and basin to become static. The existing flow meter may need to be replaced with a larger one to accommodate the increase in capacity. The Project inlet will consist of an overpour structure (long crested weir) with flash boards and an undershot gate. The flowmeter may communicate with the undershot gate to control flows into the Project. The overpour structure will provide high water level protection in the event of a gate failure or emergency situation. Water in the basins will not have a means to be diverted back into the Oleander Canal.

As illustrated in **Figure 2**, the Area of Potential Effect (APE) includes approximately 30 acres north of Lincoln Avenue and west of Chestnut Avenue. The existing parcels will be cleared of vegetation, trees, fencing, structures, and other debris. The Project will include perimeter fencing with FID standard wire mesh fence, except where the basin parallels the canal or mobile home park. Drive gates will be placed on the canal bank for access. All improvements will utilize existing PG&E services, and no new utilities will be needed.

Report Objectives

Construction activities such as that proposed by FID could potentially damage biological resources or modify habitats that are crucial for sensitive plant and wildlife species. In cases such as these, development may be regulated by state or federal agencies, subject to provisions of CEQA and/or addressed by local regulatory agencies.

This report addresses issues related to the following:

1. The presence of sensitive biological resources onsite, or with the potential to occur onsite.
2. The federal, state, and local regulations regarding these resources.
3. Mitigation measures that may be required to reduce the magnitude of anticipated impacts and/or comply with permit requirements of state and federal resource agencies.

Therefore, the objectives of this report are:

1. Summarize all site-specific information related to existing biological resources.
2. Make reasonable inferences about the biological resources that could occur onsite based on habitat suitability and the proximity of the site to a species' known range.
3. Summarize all state and federal natural resource protection laws that may be relevant to the Project.
4. Identify and discuss Project impacts to biological resources likely to occur onsite within the context of CEQA or state or federal laws.
5. Identify and publish a set of avoidance and mitigation measures that would reduce impacts to a less-than-significant level (as identified by CEQA) and are generally consistent with recommendations of the resource agencies for affected biological resources.

Study Methodology

A reconnaissance-level field survey of the Project sites and surrounding areas was conducted on May 26, 2020 by Provost & Pritchard biologist, Brooke Fletcher. The survey consisted of walking through the Project areas while identifying and noting land uses, biological habitats and communities, and plant and animal species encountered. Furthermore, the site and surrounding areas were assessed for suitable habitats of various wildlife species.

Ms. Fletcher conducted an analysis of potential Project-related impacts to biological resources based on the resources known to exist or with potential to exist within the Project site and surrounding areas. Sources of information used in preparation of this analysis included: the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB); the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) system; the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Vascular Plants of California; CalFlora's online database of California native plants; the Jepson Herbarium online database (Jepson eFlora); USFWS Environmental Conservation Online System (ECOS); the NatureServe Explorer online database; the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Plants Database; the CDFW California Wildlife Habitat Relationships (CWHR) database; the California Herps online database; and various manuals, reports, and references related to plants and animals of the San Joaquin Valley region.

The field investigation did not include a wetland delineation or focused surveys for special status species. The field survey conducted included an appropriate level of detail to assess the significance of potential impacts to sensitive biological resources resulting from the Project. Furthermore, the field survey was sufficient to generally describe those features of the Project that could be subject to the jurisdiction of federal and/or State agencies, such as the U.S. Army Corps of Engineers (USACE), CDFW, and the Regional Water Quality Control Board (RWQCB).

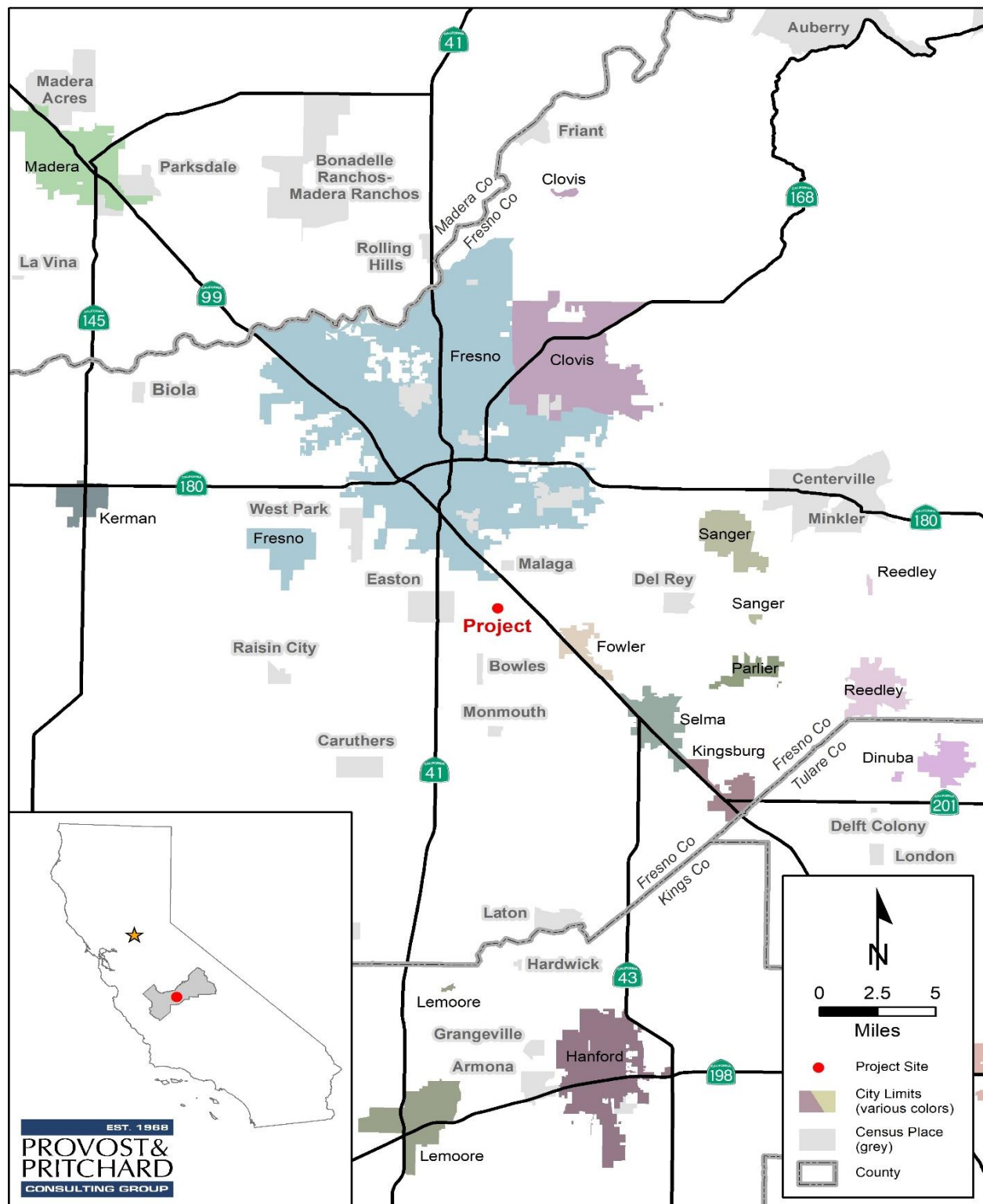
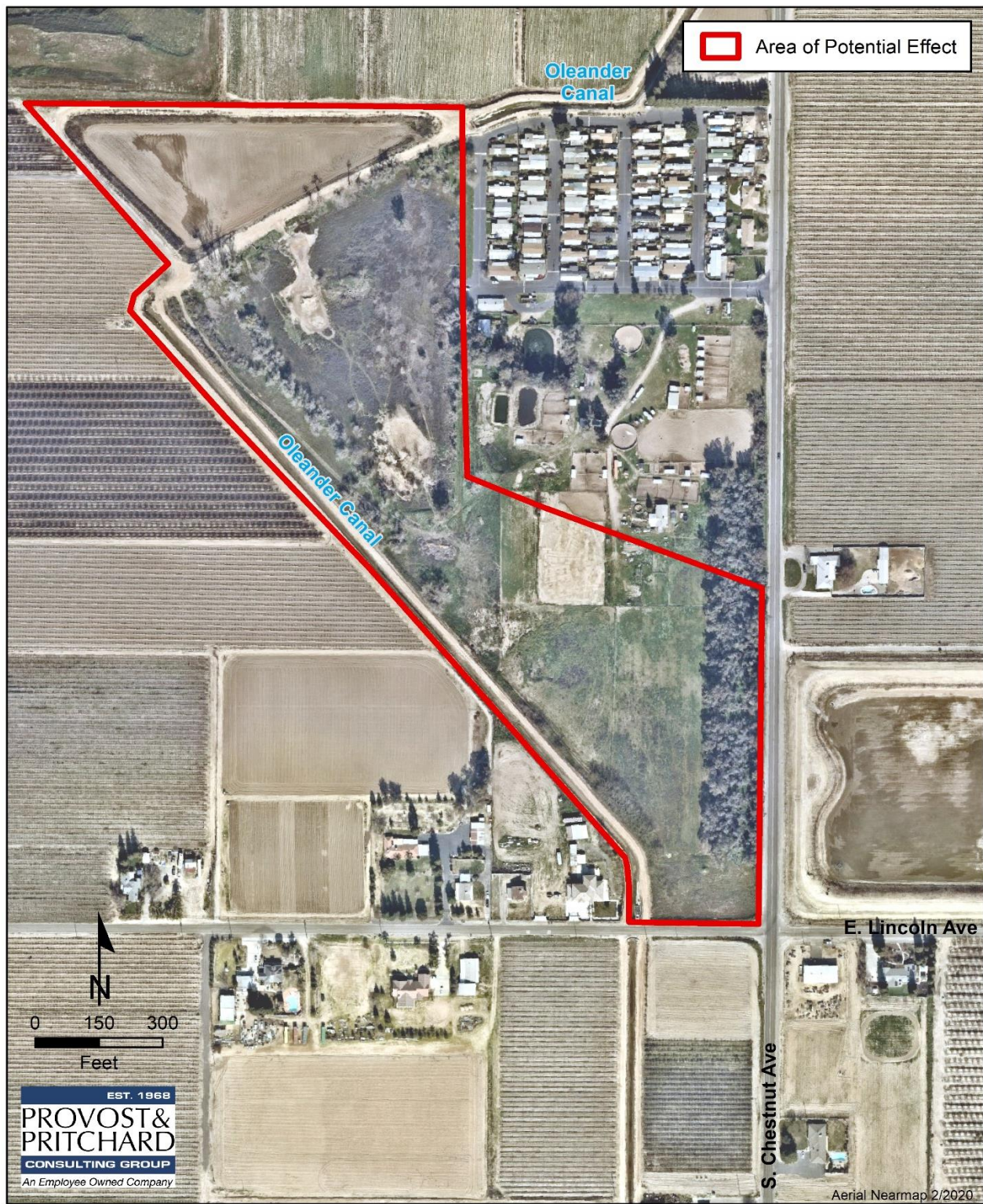


Figure 1. Regional Location



5/27/2020 : G:\Fresno ID - 1038\103819015-FID Savory Pond\GIS\Map\CEQA\APE_Aerial.mxd

Figure 2: Potential Area of Effect (APE) Map

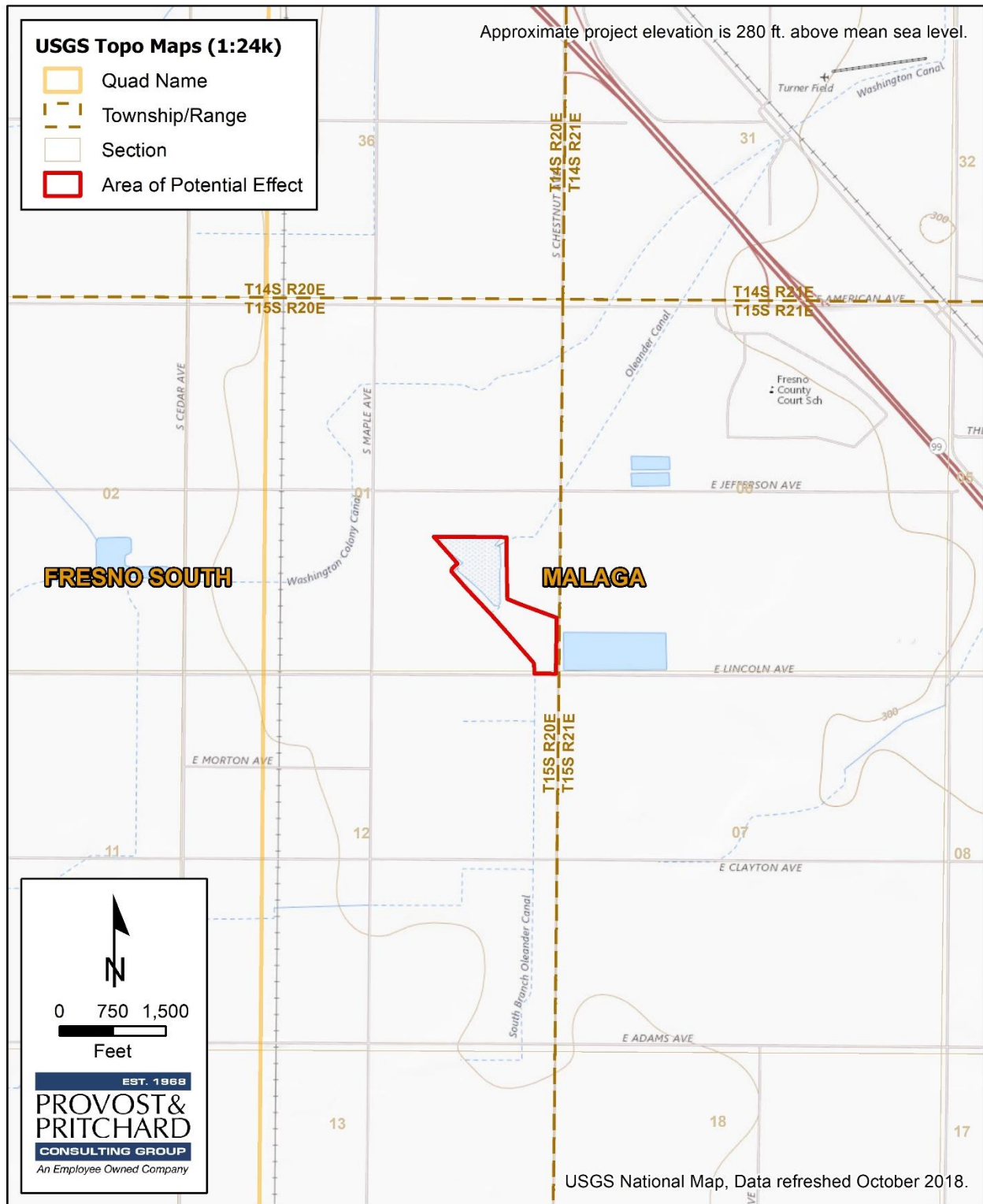


Figure 3: Topographic Quadrangle Map

II. Existing Conditions

Regional Setting

The Project site is located in southern Fresno County within the lower San Joaquin Valley, part of the Great Valley of California (See **Figure 1**). The Valley is bordered by the Sierra Nevada Mountain Ranges to the east, the Coast Ranges to the west, the Klamath Mountains and Cascade Range to the north, and the Transverse Ranges and Mojave Desert to the south.

Like most of California, the San Joaquin Valley experiences a Mediterranean climate. Warm, dry summers are followed by cool, moist winters. Summer temperatures often reach above 90 degrees Fahrenheit, and the humidity is generally low. Winter temperatures are often below 60 degrees Fahrenheit during the day and rarely exceed 70 degrees. On average, the Central Valley receives approximately 10 inches of precipitation in the form of rainfall yearly, most of which occurs between October and March.

The entire Project site lies within Oleander Canal-Fish Slough sub-watershed; Hydrologic Unit Code (HUC): 180300090505, part of the Dog Creek-Fish Slough watershed; HUC: 1803000905. The principal drainage in the vicinity is Oleander Canal, which runs along the northwest edge of the Project site.

Photographs of the Project areas and vicinity are available in Error! Reference source not found. at the end of this document.

Project Site

As illustrated in **Figure 2**, the APE includes approximately 30 acres northwest of the intersection of Chestnut and Lincoln Avenues along Oleander Canal. The Project site is bordered by lands in agricultural production, rural residences, a mobile home park, and existing basins.

A review of historical aerial imagery shows that the Project area was filled and graded between 1950 and 1957, eliminating any natural topographic features. The existing basins were then constructed between 1957 and 1965, and the southern portion of the site was developed into agricultural crops prior to 1977. The trees onsite appear to have been planted around the time the mobile home park was constructed between 1977 and 1985.

At the time of the field survey, ruderal, non-native grassland pasture comprised the southern portion of the APE. Vegetative cover was dominated by ripgut brome (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), foxtail chess (*Bromus madritensis*), wild oats (*Avena fatua*), Bermuda grass (*Cynodon dactylon*), big heron bill (*Erodium botrys*), mustard (*Brassica nigra*), prickly lettuce (*Lactuca serriola*), Spanish clover (*Acmispon americanus* var. *americanus*), cutleaf evening primrose (*Oenothera laciniata*), alkali heliotrope (*Heliotropium curassavicum*), purple top vervain (*Verbena bonariensis*), fiddleneck (*Amsinckia intermedia*), and vinegarweed (*Trichostema lanceolatum*). The pasture appears to be used seasonally for cattle grazing and/or as a livestock enclosure. Piles of dirt, trash, and vegetation were present in the open fields and this portion of the site supported an abundant California ground squirrel (*Otospermophilus beecheyi*) population. A grove of eucalyptus trees was present along Chestnut Avenue which comprises the eastern border of the site. Three large raptor stick nests and several smaller stick nests were observed within these eucalyptus trees at the time of the field survey. One of the nests was occupied by a red-tailed hawk (*Buteo jamaicensis*) in incubation posture. Great horned owls (*Bubo virginianus*) were observed flushing from one of the other nests. No activity was observed at the third nest;

however, this nest is also presumed to belong to great horned owls based on the whitewash, feathers, and pellets at the base of the nest tree. Five great horned owl individuals (two adults and three juveniles) were observed within the eucalyptus grove at the time of the field survey. One Swainson's hawk (*Buteo swainsonii*) was also observed onsite, but this individual was not seen at a nest during the observation period.

The western border of the Project area includes the Oleander Canal which had significant flows at the time of the field survey. The canal is channelized, and portions are lined with concrete. Vegetation was essentially absent from the channel and banks, and American bullfrogs were observed at the time of the field survey. Compacted dirt roads were present along the canal banks. There was a tree of heaven (*Ailanthus altissima*) grove in the southwest portion of the APE between the canal and the grassland pasture. Scattered Fremont cottonwood (*Populus fremontii*) trees were present on the landside of the canal embankment north of the tree of heaven grove.

The northern portion of the site contained existing excavated basins. Both of these basins would likely be classified as artificial wetlands. Although the soil was not sampled, portions of both basins contained hydrophytic vegetation and had wetland hydrology indicators. The basin furthest north contained standing water and hydrophytic vegetation in inundated depressions. American bullfrogs and mallards (*Anas platyrhynchos*) were observed. Dryer areas within the basin were unexpectedly dominated by golden tickseed (*Coreopsis tinctoria*). A compacted dirt road separates the north and south existing basins. The southern basin, located directly west of the mobile home park, showed significant signs of disturbance. Dirt roads and trails were present, along with vehicle and equipment tracks. Portions of the basin had recently been graded and recontoured with heavy equipment. Piles of trash, a vagrant camp, brush and burn piles were also evident within this southern basin. This basin contained Fremont cottonwood trees, Gooding's willows (*Salix gooddingii*), narrowleaf willows and sandbar willows (*Salix exigua*). Tree and shrub cover was primarily situated around the perimeter of the basin, but scattered trees were also present within the basin floor. In addition to living trees, this basin contained large snags which could provide nesting habitat for cavity nesters such as the American kestrel (*Falco sparverius*) or the northern flicker (*Colaptes auratus*), both of which were observed onsite during the field survey. The only inundated portion of the southern basin was a small area at the mouth of the culvert west of the mobile home park. This ponded area supported a small, artificially excavated and irrigated riparian habitat consisting of Fremont cottonwood, Japanese honeysuckle (*Lonicera japonica*), smartweed (*Persicaria hydropiper*), vinca (*Vinca major*), monkeyflower (*Erythranthe moschata*), and flatsedge (*Cyperus eragrostis*). A Bullock's oriole (*Icterus bullockii*), a valley gartersnake (*Thamnophis sirtalis fitchi*), and American bullfrogs were observed in this area at the time of the field survey. While the remainder of the southern basin was dry at the time of the survey, bulrush (*Schoenoplectus acutus*), Baltic rush (*Juncus balticus*) and Jersey cudweed (*Pseudognaphalium luteoalbum*) were observed within dry depressions, indicating that these areas are subject to ponding. The rest of the southern basin had characteristics of ruderal, non-native grassland, supporting a vegetative cover similar to the grassland pasture to the south.

In addition to the San Joaquin fence lizard (*Sceloporus occidentalis biseriatus*), western side-blotched lizard (*Uta stansburiana elegans*), valley gartersnake, American bullfrog, and California toad (*Anaxyrus boreas halophilus*) individuals that were observed at the time of the field survey, the following reptile and amphibian species would be expected to occur onsite: Sierran treefrog (*Pseudacris sierra*), California kingsnake (*Lampropeltis californiae*), and Pacific gophersnake (*Pituophis catenifer catenifer*). The following avian species were observed during the field survey: great horned owl, red-tailed hawk, Swainson's hawk, American kestrel, northern flicker, western kingbird (*Tyrannus verticalis*), American crow (*Corvus brachyrhynchos*), American

robin (*Turdus migratorius*), black phoebe (*Sayornis nigricans*), northern mockingbird (*Mimus polyglottos*), California scrub jay (*Aphelocoma californica*), mourning dove (*Zenaida macroura*), and mallard. California ground squirrels were the only mammals observed utilizing the Project area at the time of the field survey; however, domestic goats were present within adjacent livestock enclosures, and domestic dogs and cats were present within the mobile home park. Two domestic goat corpses were observed within the eucalyptus grove along Chestnut Avenue, and the grassland pasture onsite contained signs of seasonal cattle grazing. Additional mammalian species expected to occur onsite include coyote (*Canis latrans*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), common gray fox (*Urocyon cinereoargenteus*), desert cottontail (*Sylvilagus audubonii*), black-tailed jackrabbit (*Lepus californicus*), Botta's pocket gopher (*Thomomys bottae*), and other common murid rodents.

Soils

Four soil mapping units representing three soil series were identified within the Project area: Delhi loamy sand, 0 to 3 percent slopes, Major Land Resource Area (MLRA) 17, Delhi loamy sand, 3 to 9 percent slopes, Dello loamy sand, and Hanford sandy loam. Dello is the only mapped soil which is classified as a hydric soil. Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions such that under sufficiently wet conditions, hydrophytic vegetation can be supported.

Delhi loamy sand 0 to 3 percent slope accounts for 27.9 percent and 3 to 9 percent slope accounts for 0.4 percent of the APE. Delhi soils are formed from weathered granitic rocks and are found on floodplains and alluvial fans. These soils are somewhat excessively drained, have rapid permeability and slow runoff.

Dello loamy sand accounts for 63.4 percent of the APE. Dello soils are formed in alluvium from granitic sources. These soils are very poorly drained and are subject to rare or occasional flooding.

Approximately 8 percent of the APE is classified as Hanford sandy loam which is a moderately coarse alluvium found on stream bottoms, floodplains, and alluvial fans. These soils are well drained with rapid permeability.

The site lies within MLRA 17, which encompasses the San Joaquin Valley. MLRA 17 supports naturalized annuals and scattered trees. Dominant herbaceous species include wild barley and oats, soft chess, ripgut and red brome, foxtail fescue, burclover, and filaree. Major wildlife species of this region include jackrabbit, coyote, fox, ground squirrel, pocket gopher, and various passerines.

The complete NRCS Web Soil Survey report is available in Error! Reference source not found. at the end of this document.

Natural Communities of Special Concern

Natural communities of special concern are those that are of limited distribution, distinguished by significant biological diversity, or home to special status species. CDFW is responsible for the classification and mapping of all-natural communities in California. Just like the special status plant and animal species, these natural communities of special concern can be found within the CNDDDB.

According to CNDDDB, there are no recorded observations of natural communities of special concern with potential to occur within the Project area or vicinity. Furthermore, biological communities observed onsite

during the field survey were significantly disturbed, degraded by the presence of invasive species, and therefore provide relatively low quality habitat for most native wildlife species.

Designated Critical Habitat

The USFWS often designates areas of “Critical Habitat” when it lists species as threatened or endangered. Critical Habitat is a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. According to CNDDDB and IPaC, designated critical habitat is absent from the Project area and vicinity.

Wildlife Movement Corridors

Wildlife movement corridors are routes that animals regularly and predictably follow during seasonal migration, dispersal from native ranges, daily travel within home ranges, and inter-population movements. Movement corridors in California are typically associated with valleys, ridgelines, and rivers and creeks supporting riparian vegetation.

Oleander Canal is highly disturbed in the Project area and surrounded by urban and agricultural development. While some riparian vegetation is present within the basins onsite, vegetation within the canal is absent. The Project area is flanked by intensively cultivated agricultural lands, residential development, and paved roads. Therefore, the Project area does not contain features that would be likely to function as a wildlife movement corridor. Furthermore, the Project is located in a region often disturbed by intensive agricultural cultivation practices and human disturbance which would discourage dispersal and migration. At most, domestic dogs, coyotes, and common gray foxes may utilize the canal banks to travel between agricultural lands while foraging nocturnally.

Special Status Plants and Animals

California contains several rare plant and animal species. In this context, “rare” is defined as species known to have low populations or limited distributions. As the human population grows, resulting in urban expansion which encroaches on the already limited suitable habitat, these sensitive species become increasingly more vulnerable to extirpation. State and Federal regulations have provided the CDFW and the USFWS with a mechanism for conserving and protecting the diversity of plant and animal species native to California. Numerous native plants and animals have been formally designated as “threatened” or “endangered” under state and federal endangered species legislation. Other formal designations include “candidate” for listing or “species of special concern” by CDFW. The CNPS has its list of native plants considered rare, threatened, or endangered. Collectively these plants and animals are referred to as “special status species.” A thorough search of the CNDDDB for published accounts of special status plant and animal species was conducted for the *Malaga* 7.5-minute quadrangle that contains the Project site in its entirety, and for the eight surrounding quadrangles: *Clovis*, *Fresno North*, *Fresno South*, *Selma*, *Round Mountain*, *Sanger*, *Caruthers*, and *Conejo*. These species, and their potential to occur within the Project area are listed in **Table 1** and **Table 2** on the following pages. Raw data obtained from CNDDDB is available in Error! Reference source not found. at the end of this document. Other sources of information utilized in the preparation of this analysis included the CNPS Online Inventory of Rare and Endangered Vascular Plants of California, CalFlora’s online database of California native plants, the Jepson eFlora, USFWS ECOS, the NatureServe Explorer online database, the USDA- NRCS Plants Database, the CDFW-CWHR database, ebird.org, and the California Herps online database. **Figure 3** shows the Project’s 7.5-minute quadrangle, according to USGS Topographic Maps.

Table 1: Special Status Animals with Potential to Occur Onsite or in the Vicinity

Species	Status	Habitat	Occurrence on Project Site
American badger (Taxidea taxus)	CSC	Grasslands, savannas, and mountain meadows near timberline are preferred. Most abundant in drier open spaces of shrub and grassland. Burrows in soil.	Unlikely. Habitats of the Project area are considered marginal, at best, for this species. A small area (approximately 10 acres) of non-native rangeland pasture was present; burrows of suitable dimensions and an adequate prey base of ground squirrels was observed. However, a fragmented 10-acre patch of habitat is not large enough to support a population of American badgers, and the site is bordered by intensively cultivated agricultural lands and high-cost corridors which would presumably create a sink in the unlikely event that a transient individual were to occupy the site.
burrowing owl (Athene cunicularia)	CSC	Resides in open, dry annual or perennial grasslands, deserts, and scrublands with low growing vegetation. Nests underground in existing burrows created by mammals, most often ground squirrels.	Unlikely. The presence of large trees and raptors makes the Project area generally unsuitable for this species.
California glossy snake (Arizona elegans occidentalis)	CSC	Inhabits arid scrub, rocky washes, grasslands, and chaparral. Prefers open areas with loose soil for easy burrowing.	Absent. The Project area is outside of the known geographic range of this species. The only recorded occurrences in the vicinity correspond to historical collections made in 1893 and 1939.
California tiger salamander (Ambystoma californiense)	FT, CT, CWL	Requires vernal pools or seasonal ponds for breeding and small mammal burrows for aestivation. Generally found in grassland and oak savannah plant communities in central California from sea level to 1500 feet in elevation.	Unlikely. The Project is located within the historic and current range of this species. Rodent burrows and grassland pasture, which could potentially serve as upland habitat, are present onsite. However, typical vernal pool habitat was not observed within Project areas or surrounding lands. While this species could potentially breed within seasonal pools, ponds, and fire depressions

Species	Status	Habitat	Occurrence on Project Site
			along the canal banks, the presence of bullfrogs, an apex predator, further reduces the quality of the habitat.
coast horned lizard <i>(Phrynosoma blainvillii)</i>	CSC	Found in grasslands, coniferous forests, woodlands, and chaparral, primarily in open areas with patches of loose, sandy soil and low-lying vegetation in valleys, foothills, and semi-arid mountains. Frequently found near ant hills and along dirt roads in lowlands along sandy washes with scattered shrubs.	Absent. Suitable habitat for this species is absent from the Project area.
Crotch bumble bee <i>(Bombus crotchii)</i>	CCE	Occurs throughout coastal California, as well as east to the Sierra-Cascade crest, and south in to Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Unlikely. Although the Project is located within the historical range of this species, vegetative cover is dominated by weedy, non-native plants. Furthermore, the ongoing use of commercial honeybees, herbicides, and pesticides in adjacent agricultural lands makes the Project area unsuitable for native pollinators.
double-crested cormorant <i>(Phalacrocorax auratus)</i>	CWL	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	Possible. This adaptable species could potentially nest within trees or on the ground around the existing basins within the APE.

Species	Status	Habitat	Occurrence on Project Site
Fresno kangaroo rat (<i>Dipodomys nitratoides exilis</i>)	FE, CE	An inhabitant of alkali sink open grassland environments in western Fresno County. Prefers bare, alkaline, clay-based soils subject to seasonal inundation with more friable soil mounds around shrubs and grasses.	Unlikely. Habitats of the Project area are considered marginal, at best for this species. No kangaroo rat sign (tracks, precincts, mounds, or haystacks) were observed during the biological survey. The only recorded occurrences of this species in the vicinity of the Project are historic collection records from an unknown location near Fresno over 100 years ago. The status of this observation has since been updated to “extirpated”.
least Bell’s vireo (<i>Vireo bellii pusillus</i>)	FE, CE	Breeding habitat consists of dense, low, shrubby, riparian vegetation in the vicinity of water or dry river bottoms.	Unlikely. Habitats of the Project area are considered marginal, at best for this species. The only recorded occurrences in the vicinity of the Project are historic collection records from an unknown location near Clovis over 100 years ago. The status of this observation has since been updated to “possibly extirpated”, which means the species has been searched for but unobserved for many years.
northern California legless lizard (<i>Anniella pulchra</i>)	CSC	Found primarily underground, burrowing in loose, sandy soil. Forages in loose soil and leaf litter during the day. Occasionally observed on the surface at dusk and night.	Unlikely. Habitats of the Project area are marginal, at best for this species. The only recorded observation of this species in the vicinity corresponds to a historic collection from the late 1800s.
pallid bat (<i>Antrozous pallidus</i>)	CSC	Found in grasslands, chaparral, and woodlands, where it feeds on ground- and vegetation-dwelling arthropods, and occasionally takes insects in flight. Prefers to roost in rock crevices, but may also use tree cavities, caves, bridges, and other man-made structures.	Unlikely. Suitable roosting habitat is absent from the Project site and surrounding lands. At most, this species could forage over the site nocturnally.

Species	Status	Habitat	Occurrence on Project Site
San Joaquin kit fox <i>(Vulpes macrotis mutica)</i>	FE, CT	Underground dens with multiple entrances in alkali sink, valley grassland, and woodland in valleys and adjacent foothills.	Unlikely. Habitats of the Project area are considered marginal, at best for this species. A small area (approximately 10 acres) of non-native rangeland pasture was present; burrows of suitable dimensions and an adequate prey base of ground squirrels was observed. However, a fragmented 10-acre patch of habitat is not large enough to support a population of kit foxes, and the site is bordered by intensively cultivated agricultural lands and high-cost corridors which would presumably create a sink in the unlikely event that a transient individual were to occupy the site. The Project is located approximately 50 miles east of the nearest known core population in Ciervo-Panoche Natural Area. Although some populations of San Joaquin kit fox in other parts of California have adapted to an urbanized environment, modern kit fox occurrences are locally scarce. There have been no recorded observations of this species in the vicinity in more than 30 years.
Swainson's hawk <i>(Buteo swainsoni)</i>	CT	Nests in large trees in open areas adjacent to grasslands, grain or alfalfa fields, or livestock pastures suitable for supporting rodent populations.	Present. The Project area contains suitable nest trees, perches, and an adequate prey base. One Swainson's hawk individual was observed onsite at the time of the biological survey, and there are known nest trees within 1.5 miles of the site.
tricolored blackbird <i>(Agelaius tricolor)</i>	CT, CSC	Nests colonially near fresh water in dense cattails or tules, or in thickets of riparian shrubs. Forages in grassland and cropland. Large colonies are often found on dairy farm forage fields.	Unlikely. Suitable nesting habitat was not observed onsite or within adjacent lands at the time of the field survey. At most, this species could potentially nest within triticale or alfalfa fields in the vicinity and forage over the grassland or basins onsite.

Species	Status	Habitat	Occurrence on Project Site
valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT	Lives in mature elderberry shrubs of the Central Valley and foothills. Adults are active March to June.	Absent. Suitable elderberry habitat is absent from the project area.
vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT	Occupies vernal pools, clear to tea-colored water, in grass or mud-bottomed swales, and basalt depression pools.	Absent. Suitable vernal pool habitat is absent from the Project area.
western mastiff bat (<i>Eumops perotis californicus</i>)	CSC	Found in open, arid to semi-arid habitats, including dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas, where it feeds on insects in flight. Roosts most commonly in crevices in cliff faces, but may also use high buildings and tunnels.	Unlikely. Suitable roosting habitat is absent from the Project site and surrounding lands. At most, this species could forage over the site nocturnally.
western pond turtle (<i>Emys marmorata</i>)	CSC	An aquatic turtle of ponds, marshes, slow-moving rivers, streams, and irrigation ditches with riparian vegetation. Requires adequate basking sites and sandy banks or grassy open fields to deposit eggs.	Unlikely. Habitats of the Project area are considered marginal, at best for this species. The nearest recorded occurrence of this species was reported approximately 15 miles north-northeast of the Project site.
western spadefoot (<i>Spea hammondi</i>)	CSC	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Vernal pools or temporary wetlands, lasting a minimum of three weeks, which do not contain bullfrogs, fish, or crayfish are necessary for breeding.	Unlikely. The Project is located within the historic and current range of this species. Rodent burrows and grassland pasture, which could potentially serve as upland habitat, are present onsite. However, typical vernal pool habitat was not observed within Project areas or surrounding lands. While this species could potentially breed within seasonal pools, ponds, and tire depressions along the canal banks, the presence of bullfrogs, an apex predator, further reduces the quality of the habitat.

Species	Status	Habitat	Occurrence on Project Site
western yellow-billed cuckoo (<i>Coccyzus americanus occidentalis</i>)	FT, CE	Suitable nesting habitat in California includes dense riparian willow-cottonwood and mesquite habitats along a perennial river. Once a common breeding species in riparian habitats of lowland California, this species currently breeds consistently in only two locations in the State: along the Sacramento and South Fork Kern Rivers.	Absent. Suitable nesting habitat is absent. This species has not been recorded in Fresno County in more than 100 years and is believed to be extirpated from the region.

Table 2: Special Status Plants with Potential to Occur Onsite or in the Vicinity

Species	Status	Habitat	Occurrence on Project Site
California jewelflower (<i>Caulanthus californicus</i>)	FE, CE, CNPS 1B	Found in the San Joaquin Valley and Western Transverse Ranges in sandy soils. Occurs on flats and slopes, generally in non-alkaline grassland at elevations between 230 feet and 6100 feet. Blooms February–April.	Absent. The ruderal and disturbed habitats of the Project area are generally unsuitable for this species. There have been no recorded observations of this species in Fresno County in over 100 years, and it is believed that conversion of native habitat to urban development and agriculture has extirpated this species from the region.
California satintail (<i>Imperata brevifolia</i>)	CNPS 2B	Although this facultative species is equally likely to occur in wetlands and non-wetlands, it is often found in wet springs, meadows, streambanks, and floodplains at elevations below 1600 feet. Blooms September – May.	Unlikely. The ruderal and disturbed habitats of the Project area are generally unsuitable for this species. The only recorded observation of this species in the Project's vicinity corresponds to a historical collection made over 100 years ago.
caper-fruited tropidocarpum (<i>Tropidocarpum capparideum</i>)	CNPS 1B	Found in alkaline clay soils in low hills and valleys, often within Valley Grassland communities, at elevations below 1300 feet. Blooms March – April.	Absent. Soils required by this species are absent from the Project area.
forked hare-leaf (<i>Lagophylla dichotoma</i>)	CNPS 1B	Found in cismontane woodland, and valley and foothill grassland communities at elevations between 600 feet and 1100 feet.	Absent. The Project area is located below the altitudinal range of this species.
Greene's tuctoria (<i>Tuctoria greenei</i>)	FE, CR, CNPS 1B	Found in the San Joaquin Valley and other parts of California in vernal pools within valley grassland, wetland, and riparian communities at elevations below 3500 feet. Blooms May – September.	Absent. Suitable vernal pool habitat is absent from the Project area.
Madera leptosiphon (<i>Leptosiphon serrulatus</i>)	CNPS 1B	Found in openings in foothill woodland, often yellow-pine forest, and chaparral at elevations between 1000 feet and 4300 feet. Blooms April – May.	Absent. Suitable habitat is absent and the Project area is located outside of the altitudinal range of this species.

Species	Status	Habitat	Occurrence on Project Site
San Joaquin adobe sunburst (<i>Pseudobahia peirsonii</i>)	FT, CE, CNPS 1B	Found in the San Joaquin Valley and the Sierra Nevada Foothills in bare dark clay soils in valley and foothill grassland and cismontane woodland communities at elevations between 325 feet and 2950 feet. Blooms March–May.	Absent. Soils required by this species are absent from the project area.
San Joaquin Valley Orcutt grass (<i>Orcuttia inaequalis</i>)	FT, CE, CNPS 1B	Found in the eastern San Joaquin Valley and the Sierra Nevada foothills in vernal pools within valley grassland, freshwater wetland, and wetland-riparian communities at elevations below 2600 feet. Blooms April – September.	Absent. Suitable vernal pool habitat is absent from the project area.
Sanford's arrowhead (<i>Sagittaria sanfordii</i>)	CNPS 1B	Found in the San Joaquin Valley and other parts of California in freshwater-marsh, primarily ponds and ditches, at elevations below 1000 feet. Blooms May–October.	Unlikely. This species was not observed during the biological survey. Habitats of the Project area are considered marginal, at best for this species.
spiny-sepaled button-celery (<i>Eryngium spinosepalum</i>)	CNPS 1B	Found in the Sierra Nevada Foothills and the San Joaquin Valley. Occurs in vernal pools, swales, and roadside ditches. Often associated with clay soils in vernal pools within grassland communities. Occurs at elevations between 50 feet and 4160 feet. Blooms April–July.	Absent. Suitable vernal pool habitat is absent from the project area.
succulent owl's-clover (<i>Castilleja campestris</i> var. <i>succulenta</i>)	FT, CE, CNPS 1B	Found in vernal pools, often in acidic soils at elevations below 2500 feet. Blooms April – July.	Absent. Suitable vernal pool habitat is absent from the project area.

Explanation of Occurrence Designations

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

Status Codes

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
CSC	California Species of Special Concern	CWL	California Watch List
CCE	California Endangered (Candidate)	CR	California Rare

CNPS Rare Plant Ranks

1B	Plants Rare, Threatened, or Endangered in California and elsewhere
2B	Plants Rare, Threatened, or Endangered in California, but more common elsewhere

III. Impacts and Mitigation

Significance Criteria

CEQA

General plans, area plans, and specific projects are subject to the provisions of CEQA. The purpose of CEQA is to assess the impacts of proposed projects on the environment prior to project implementation. Impacts to biological resources are just one type of environmental impact assessed under CEQA and vary from project to project in terms of scope and magnitude. Projects requiring removal of vegetation may result in the mortality or displacement of animals associated with this vegetation. Animals adapted to humans, roads, buildings, and pets may replace those species formerly occurring on a site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed. Such impacts may be considered either “significant” or “less-than-significant” under CEQA. According to CEQA Statute and Guidelines (AEP 2012), “significant effect on the environment” means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest. Specific project impacts to biological resources may be considered “significant” if they would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- 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;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Furthermore, CEQA Guidelines Section 15065(a) states that a project may trigger the requirement to make a “mandatory finding of significance” if the project has the potential to:

“Substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare or threatened species, or eliminate important examples of the major periods of California history or prehistory.”

Relevant Goals, Policies, and Laws

Fresno County General Plan

The Fresno County General Plan sets forth the following goals and policies that protect biological resources and which have potential relevance to the Project's environmental review:

- The County shall require adequate buffer zones between construction activities and significant wildlife resources, including both onsite habitats that are purposely avoided and significant habitats that are adjacent to the project site, in order to avoid the degradation and disruption of critical life cycle activities such as breeding and feeding. The width of the buffer zone should vary depending on the location, species, etc. A final determination shall be made based on informal consultation with the US Fish and Wildlife Service and/or the California Department of Fish and Wildlife.
- The County shall ensure that landmark trees are preserved and protected whenever possible.
- The County shall establish procedures for identifying and preserving rare, threatened, and endangered plant species that may be adversely affected by public or private development projects. As part of this process, the County shall require, as part of the environmental review process, a biological resources evaluation of the project site by a qualified biologist. The evaluation shall be based on field reconnaissance performed at the appropriate time of year to determine the presence or absence of significant plant resources and/or special-status plant species. Such evaluation shall consider the potential for significant impact on these resources and shall either identify feasible mitigation measures or indicate why mitigation is not feasible.
- The County shall require developers to take into account a site's natural topography with respect to the design and siting of all physical improvements in order to minimize grading.
- The County should encourage landowners to maintain natural vegetation or plant suitable vegetation along fence lines, drainage and irrigation ditches, and on unused or marginal land for the benefit of wildlife.

Threatened and Endangered Species

Permits may be required from the USFWS and/or CDFW if activities associated with a project have the potential to result in the take of a species listed as threatened or endangered under the federal and/or state Endangered Species Acts. "Take" is defined by the state of California as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" (California Fish and Game Code, Section 86). "Take" is more broadly defined by the federal Endangered Species Act to include "harm" (16 USC, Section 1532(19), 50 CFR, Section 17.3). CDFW and USFWS are responsible agencies under CEQA. Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

Designated Critical Habitat

When species are listed as threatened or endangered, the USFWS often designates areas of "Critical Habitat" as defined by section 3(5)(A) of the federal Endangered Species Act (ESA). Critical Habitat is a term defined in the ESA as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical Habitat is a tool that supports the continued conservation of imperiled species by guiding cooperation with the federal government. Designations only affect federal agency actions or federally funded or permitted activities. Critical Habitat does

not prevent activities that occur within the designated area. Only activities that involve a federal permit, license, or funding and are likely to destroy or adversely modify Critical Habitat will be affected.

Migratory Birds

The Federal Migratory Bird Treaty Act ((MBTA): 16 USC 703-712) prohibits killing, possessing, or trading in any bird species covered in one of four international conventions to which the United States is a party, except in accordance with regulations prescribed by the Secretary of the Interior. The name of the act is misleading, as it actually covers almost all bird's native to the United States, even those that are non-migratory. The MBTA encompasses whole birds, parts of birds, and bird nests and eggs. Additionally, California Fish and Game Code makes it unlawful to take or possess any non-game bird covered by the MBTA (Section 3513), as well as any other native non-game bird (Section 3800).

Birds of Prey

Birds of prey are protected in California under provisions of Fish and Game Code (Section 3503.5), which states that it is unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks and eagles) or Strigiformes (owls), as well as their nests and eggs. The bald eagle and golden eagle are afforded additional protection under the federal Bald and Golden Eagle Protection Act (16 USC 668), which makes it unlawful to kill birds or their eggs.

Nesting Birds

In California, protection is afforded to the nests and eggs of all birds. California Fish and Game Code (Section 3503) states that it is “unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by this code or any regulation adopted pursuant thereto”. Breeding-season disturbance that causes nest abandonment and/or loss of reproductive effort is considered a form of “take” by the CDFW.

Wetlands and other “Jurisdictional Waters”

Natural drainage channels and adjacent wetlands may be considered “waters of the United States” or “jurisdictional waters” subject to the jurisdiction of the USACE. The extent of jurisdiction has been defined in the Code of Federal Regulations but has also been subject to interpretation of the federal courts. Jurisdictional waters generally include:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce;
- All impoundments of waters otherwise defined as waters of the United States under the definition;
- Tributaries of waters identified in paragraphs (a)(1)-(4) (i.e. the bulleted items above).

As determined by the United States Supreme Court in its 2001 *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC)* decision, channels and wetlands isolated from other jurisdictional

waters cannot be considered jurisdictional on the basis of their use, hypothetical or observed, by migratory birds. Similarly, in its 2006 consolidated *Carabell/Rapanos* decision, the Supreme Court ruled that a significant nexus between a wetland and other navigable waters must exist for the wetland itself to be considered a navigable and therefore jurisdictional water. Furthermore, the Supreme Court clarified that the Environmental Protection Agency (EPA) and the USACE will not assert jurisdiction over ditches excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The USACE regulates the filling or grading of Waters of the U.S. under the authority of Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by “ordinary high-water marks” on opposing channel banks. All activities that involve the discharge of dredge or fill material into Waters of the U.S. are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that results in no net loss of wetland functions or values. No permit can be issued until the RWQCB issues a Section 401 Water Quality Certification (or waiver of such certification) verifying that the proposed activity will meet State water quality standards.

Under the Porter-Cologne Water Quality Control Act of 1969, the State Water Resources Control Board has regulatory authority to protect the water quality of all surface water and groundwater in the State of California (“Waters of the State”). Nine RWQCBs oversee water quality at the local and regional level. The RWQCB for a given region regulates discharges of fill or pollutants into Waters of the State through the issuance of various permits and orders. Discharges into Waters of the State that are also Waters of the U.S. require a Section 401 Water Quality Certification from the RWQCB as a prerequisite to obtaining certain federal permits, such as a Section 404 Clean Water Act permit. Discharges into all Waters of the State, even those that are not also Waters of the U.S., require Waste Discharge Requirements (WDRs), or waivers of WDRs, from the RWQCB. The RWQCB also administers the Construction Storm Water Program and the federal National Pollution Discharge Elimination System (NPDES) program. Projects that disturb one acre or more of soil must obtain a Construction General Permit under the Construction Storm Water Program. A prerequisite for this permit is the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer and implemented by a Qualified SWPPP Practitioner. Projects that discharge wastewater, storm water, or other pollutants into a Water of the U.S. may require a NPDES permit.

CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1601 and 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use of any material from their bed or bank, or the deposition of debris require a Notification of Lake or Streambed Alteration. If CDFW determines that the activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. Such an agreement typically stipulates that certain measures will be implemented to protect the habitat values of the lake or drainage in question.

Potentially Significant Project-Related Impacts and Mitigation

Species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations by CDFW or USFWS that have the potential to be impacted by the Project are identified below with corresponding mitigation measures.

Project-Related Mortality and/or Disturbance of Nesting Raptors, Migratory Birds, and Special Status Birds (Including Swainson's Hawk)

The Project site contains suitable nesting and/or foraging habitat for a variety of avian species. Several stick nests were observed within eucalyptus trees along the Project's eastern boundary at the time of the field survey. In addition to the eucalyptus grove onsite, cottonwood trees, narrowleaf willows, sandbar willows, Gooding's willows and even the invasive tree of heaven provide suitable nesting habitat for a variety of resident and migratory birds. Ground nesting birds such as the killdeer (*Charadrius vociferus*) could nest on the bare ground or compacted dirt roads onsite, and waterfowl may nest adjacent to the existing Savory Pond basin. Black phoebe and cliff swallow (*Petrochelidon pyrrhonota*) could nest on structures within or adjacent to canals.

At the time of the field survey, three raptor stick nests were observed within the eucalyptus grove along Chestnut Avenue. One of the nests was occupied by a red-tailed hawk in incubation posture. Great horned owls were observed flushing from one of the other nests. No activity was observed at the third nest; however, this nest is also presumed to belong to great horned owls based on the whitewash, feathers, and pellets at the base of the nest tree. Five great horned owl individuals (two adults and three juveniles) were observed within the eucalyptus grove at the time of the field survey. One Swainson's hawk was also observed onsite, but this individual was not seen at a nest during the observation period. Other notable observations include the presence of a Bullock's oriole within riparian habitat at the culvert adjacent to the mobile home park and mallards within the existing Savory Pond basin. In addition, the Project site contains several large snags which could provide nesting habitat for cavity nesters such as the American kestrel or the northern flicker, both of which were observed onsite during the field survey.

If birds were nesting within or adjacent to Project areas at the time of construction, Project-related activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect nesting success or result in mortality of individual birds constitute a violation of State and federal laws and would be considered a significant impact under CEQA.

In addition to providing nesting habitat, the Project area serves as foraging habitat for a variety of avian species. The grassland pasture onsite supported a large population of rodents, lizards, and flying arthropods at the time of the field survey.

The Project includes removal of all trees and vegetation within the APE. If it were determined that the proposed vegetation removal would result in a significant loss of nesting and/or foraging habitat, this could potentially be considered a significant impact under CEQA. A review of historical aerial imagery shows that the Project area was filled and graded, eliminating any natural topographic features. Then the existing basins were constructed, and the southern portion of the site was developed into agricultural crops. The trees onsite appear to have been planted around the time the mobile home park was constructed between 1977 and 1985. Because the Project area is already disturbed and there is a swath of similar habitat available in the vicinity, the removal of trees and conversion of non-native grassland pasture to a detention basin would not be considered a significant loss of nesting or foraging habitat. Furthermore, in the unlikely event that a Swainson's hawk or other avian species is foraging within the Project site during construction activities, the individual would be expected to fly away from disturbance they encounter, subsequently eliminating the risk of injury or mortality while foraging. However, if birds were nesting within these trees at the time of construction, Project-related activities could result in the abandonment of active nests or direct mortality to these birds, which would be considered a significant impact under CEQA and a violation of State and federal regulations protecting avian species.

Nesting bird season is generally accepted as February 1 through August 31; however, Swainson's hawk nesting season is generally accepted as March 1 through September 15. For simplicity, these timeframes have been combined.

Implementation of the following measures, will reduce potential impacts to nesting raptors, migratory birds, and special status birds, including Swainson's hawk to a less-than-significant level under CEQA, and will ensure compliance with State and federal laws protecting these avian species.

Mitigation. The following measures will be implemented prior to the start of construction:

Mitigation Measure NEST-1a (Avoidance): The Project's construction activities shall occur, if feasible, between September 16 and January 31 (outside of nesting bird season) in an effort to avoid impacts to nesting birds.

Mitigation Measure NEST-1b (Pre-construction Surveys): If activities must occur within nesting bird season (February 1 to September 15), a qualified biologist shall conduct pre-construction surveys for Swainson's hawk nests onsite and within a 0.5-mile radius. These surveys will be conducted in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (Swainson's Hawk Technical Advisory Committee, 2000) or current guidance. In addition to the focused Swainson's hawk surveys, a qualified biologist shall conduct a pre-construction survey for all other nesting birds within 30 days prior to the start of construction. The survey shall include the proposed work area and surrounding lands within 500 feet. All raptor nests will be considered "active" upon the nest-building stage.

Mitigation Measure NEST-1c (Establish Buffers): On discovery of any active nests near work areas, the biologist shall determine appropriate construction setback distances based on applicable CDFW and/or USFWS guidelines and/or the biology of the species in question. Specifically, a 0.5-mile disturbance-free buffer shall be implemented around active Swainson's hawk nests. Construction buffers shall be identified with flagging, fencing, or other easily visible means, and shall be maintained until the biologist has determined that the nestlings have fledged and are no longer dependent on the nest.

Less Than Significant Project-Related Impacts

Project-Related Impacts to Special Status Plant Species

All eleven of the special status plant species which have been documented in the Project vicinity are considered absent from or unlikely to occur within the Project area due to past or ongoing disturbance and/or the absence of suitable habitat. As explained in **Table 2**, the following species were deemed absent from the Project site: California jewelflower, caper-fruited tropidocarpum, forked hare-leaf, Greene's tuctoria, Madera leptosiphon, San Joaquin adobe sunburst, San Joaquin Valley Orcutt grass, spiny-sepaled button-celery, and succulent owl's-clover; and the following species were deemed unlikely to occur onsite: California satintail and Sanford's arrowhead. Since there is little to no potential for these species to occur onsite, implementation of the Project will have no impact on these 11 special status species through construction, mortality, disturbance, or loss of habitat. Mitigation measures are not warranted.

Project-Related Impacts to Special Status Animal Species Absent From, or Unlikely to Occur on, the Project Site

Of the 20 regionally occurring special status species, 18 are considered absent from or unlikely to occur within the Project area due to past or ongoing disturbance and/or the absence of suitable habitat. As explained in **Table**

1, the following species were deemed absent from the Project site: California glossy snake, coast horned lizard, valley elderberry longhorn beetle, vernal pool fairy shrimp, and western yellow-billed cuckoo; and the following species were deemed unlikely to occur onsite: American badger, burrowing owl, California tiger salamander, Crotch bumble bee, Fresno kangaroo rat (, least Bell's vireo, northern California legless lizard, pallid bat, San Joaquin kit fox, tricolored blackbird, western mastiff bat, western pond turtle, and western spadefoot. Since there is little to no potential for these species to occur onsite, implementation of the Project will have no impact on these 18 special status species through construction, mortality, disturbance, or loss of habitat. Mitigation measures are not warranted.

Project-Related Impacts to Regulated Waters, Wetlands, and Water Quality

The Project involves alterations to existing man-made canals and basins. Oleander Canal does not appear to have any downstream connection to a navigable water, other known Water of the U.S., or known Water of the State, and these artificial water features are typically not regulated by USACE or RWQCB. The most recent guidance from the SWRCB, State Wetland Definition and Procedures for Discharge of Dredged or Fill Material to Waters of the State (State Water Resources Control Board, 2019) indicates that artificial wetlands used as retention/detention basins for stormwater runoff and/or settling ponds and agricultural ditches excavated in upland are typically not considered Waters of the State. Since construction will involve ground disturbance over an area greater than one acre, the Project proponent will be required to obtain a Construction General Permit under the Construction Storm Water Program administered by the RWQCB. A prerequisite for this permit is the development of a Storm Water Pollution Prevention Plan (SWPPP) to ensure construction activities do not adversely affect water quality.

Project-Related Impacts to Riparian Habitat and Natural Communities of Special Concern

There are no CNDDDB-designated "natural communities of special concern" recorded within the Project area or surrounding lands. The Project site consists of a man-made canal, existing man-made basins, a ruderal grove of eucalyptus, ruderal and non-native grassland pasture, and livestock enclosures. Tree of heaven, Fremont cottonwood trees, Gooding's willows, narrowleaf willows, and sandbar willows are present around the existing basin west of the mobile home park. Ponded water was present at the culvert depositing water into the basin, and this area supported a small, artificially excavated and irrigated riparian habitat consisting of Fremont cottonwood, Japanese honeysuckle, smartweed, vinca, monkeyflower, and flatsedge. Both excavated basins contained regionally abundant hydrophytic vegetation mixed with ruderal non-native grasses and forbs. The basins onsite are considered artificial wetlands, and as described in the section above, are not subject to the jurisdiction of USACE or RWQCB.

A review of historical aerial imagery shows that the Project area was filled and graded between 1950 and 1957, eliminating any natural topographic features. Then the existing basins were constructed between 1957 and 1965, and the southern portion of the site was developed into agricultural crops prior to 1977. The trees onsite appear to have been planted around the time the mobile home park was constructed between 1977 and 1985. Currently, there are no natural lakes or streams onsite. The existing riparian trees were intentionally planted, and the basin areas are artificially irrigated with collected stormwater runoff and canal water via culverts. At the time of the field survey, an abundance of invasive American bullfrogs were observed within the Oleander Canal and existing basins. The Project area was dominated by weedy, non-native vegetation and significantly disturbed, evidenced by dumped trash, burn piles, vehicle tracks, ongoing earthwork, discarded animal corpses, and vagrant camps. Furthermore, the site is flanked by an adjacent mobile home park and intensively cultivated

agricultural lands. Undoubtedly, some native wildlife species use the Project area in the absence of preferred habitat. However, because of the aforementioned disturbance and the presence of invasive species, the Project area represents relatively low quality habitat for native plants and animals.

Construction of the Project will include the removal of trees and vegetation and earthwork associated with expansion of the existing basins onsite. Tree removal will be permanent, but implementation of the Project will actually result in an increase in the area of artificial wetlands. Once the proposed basins are constructed, it is likely that the collection of water will result in the re-emergence of riparian plants.

For all of these reasons, the vegetation removal associated with implementation of the Project should not be considered a significant loss of habitat or conversion of a sensitive natural community.

Project-Related Impacts to Wildlife Movement Corridors and Native Wildlife Nursery Sites

Oleander Canal is highly disturbed in the Project area and surrounded by urban and agricultural development. While some riparian vegetation is present within the basins onsite, vegetation within the canal is absent. The Project area is flanked by intensively cultivated agricultural lands, residential development, and paved roads. Therefore, the Project area does not contain features that would be likely to function as a wildlife movement corridor. Furthermore, the Project is located in a region often disturbed by intensive agricultural cultivation practices and human disturbance which would discourage dispersal and migration. At most, domestic dogs, coyotes, and common gray foxes may utilize the canal banks to travel between agricultural lands while foraging nocturnally. The Project does not propose the removal of the canal banks, and outside of construction hours and after construction completion, these species would continue to travel along the banks of the Oleander Canal. For these reasons, implementation of the Project will not have a significant impact on wildlife movement corridors. Potential impacts to migratory birds and nesting birds has been discussed in detail above, and no additional mitigation is warranted.

Project-Related Impacts to Critical Habitat

Designated critical habitat is absent from the Project area and surrounding lands. Therefore, there will be no impact to critical habitat, and mitigation is not warranted.

Local Policies or Habitat Conservation Plans

The Project appears to be consistent with the goals and policies of the Fresno County General Plan. There are no known habitat conservation plans in the Project vicinity. Mitigation is not warranted.

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Appendix A: Project Site Photos

FRESNO IRRIGATION DISTRICT
SAVORY POND PROJECT



Photograph 1:

Overview of the Project area from the southeast corner of the APE (at the intersection of Chestnut and Lincoln Avenues). Cattle fencing around the grassland pasture is visible in the foreground. Chestnut Avenue is visible to the right, and the eucalyptus grove is visible in the background.



Photograph 2:

Overview of the southern border of the APE. Cattle fencing and grassland pasture is visible to the right and Lincoln Avenue is visible to the left. The tree of heaven grove is visible in the background.



Photograph 3:

Overview of the Oleander Canal and the tree of heaven grove onsite.



Photograph 4:

Cottonwood trees and sand-bar willows within the existing southern basin onsite. The photo was taken from the west bank of Oleander Canal.



Photograph 5:

Overview of the Oleander Canal along the eastern border of the APE. The existing southern basin is visible to the left and adjacent agricultural orchard is visible to the right.



Photograph 6:

The northern basin is visible to the left and the southern basin is visible to the right. The Oleander Canal culvert is visible in the bottom right corner of this photo. Trees within the southern basin include Fremont cottonwood, sandbar willow, narrowleaf willow, and Gooding's willow.



Photograph 7:

Trash dumping and compacted dirt roads and trails were present within the existing southern basin.



Photograph 8:

Overview of the northern basin, dominated by golden tickseed. Standing water was present.



Photograph 9:

Significant ground disturbance associated with vehicles and heavy equipment was evident within the southern basin.



Photograph 10:

Small artificially irrigated riparian habitat created by ponded stormwater at the culvert west of the mobile home park. Vegetative cover is dominated by Japanese honeysuckle and Vinca.



Photograph 11:

Ground disturbance and evidence of recent earth-work within the southern basin. The adjacent mobile home park is visible in the background.



Photograph 12:

Overview of the southern basin. A thicket of bulrush is visible within a depression on the right.



Photograph 13:

Large raptor stick nest within the eucalyptus grove on-site. This nest is/was presumably occupied by great horned owls.



Photograph 14:

Juvenile great horned owl observed onsite during the field survey.



Photograph 15:

Whitewash, feathers, and pellets at the base of nest trees within the eucalyptus grove.



Photograph 16:

Adult red-tailed hawk in incubation posture in large stick nest within the eucalyptus grove onsite.



Photograph 17:

Overview of the grassland pasture in the southern portion of the APE.



Photograph 18:

Ground squirrel burrows onsite.

Appendix B: CNDDDB

FRESNO IRRIGATION DISTRICT
SAVORY POND PROJECT



Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Malaga (3611966) OR Conejo (3611956) OR Clovis (3611976) OR Selma (3611955) OR Sanger (3611965) OR Round Mountain (3611975) OR Fresno North (3611977) OR Fresno South (3611967) OR Caruthers (3611957))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
American badger <i>Taxidea taxus</i>	AMAJF04010	None	None	G5	S3	SSC
Antioch efferian robberfly <i>Efferia antiochi</i>	IIDIP07010	None	None	G1G2	S1S2	
black-crowned night heron <i>Nycticorax nycticorax</i>	ABNGA11010	None	None	G5	S4	
burrowing owl <i>Athene cunicularia</i>	ABNSB10010	None	None	G4	S3	SSC
California glossy snake <i>Arizona elegans occidentalis</i>	ARADB01017	None	None	G5T2	S2	SSC
California jewelflower <i>Caulanthus californicus</i>	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
California linderiella <i>Linderiella occidentalis</i>	ICBRA06010	None	None	G2G3	S2S3	
California satintail <i>Imperata brevifolia</i>	PMPOA3D020	None	None	G4	S3	2B.1
California tiger salamander <i>Ambystoma californiense</i>	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
caper-fruited tropidocarpum <i>Tropidocarpum capparideum</i>	PDBRA2R010	None	None	G1	S1	1B.1
coast horned lizard <i>Phrynosoma blainvillii</i>	ARACF12100	None	None	G3G4	S3S4	SSC
Crotch bumble bee <i>Bombus crotchii</i>	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
double-crested cormorant <i>Phalacrocorax auritus</i>	ABNFD01020	None	None	G5	S4	WL
forked hare-leaf <i>Lagophylla dichotoma</i>	PDAST5J070	None	None	G2	S2	1B.1
Fresno kangaroo rat <i>Dipodomys nitratooides exilis</i>	AMAFD03151	Endangered	Endangered	G3TH	SH	
great egret <i>Ardea alba</i>	ABNGA04040	None	None	G5	S4	
Greene's tuctoria <i>Tuctoria greenei</i>	PMPOA6N010	Endangered	Rare	G1	S1	1B.1
hoary bat <i>Lasiurus cinereus</i>	AMACC05030	None	None	G5	S4	
Hurd's metapogon robberfly <i>Metapogon hurdi</i>	IIDIP08010	None	None	G1G2	S1S2	



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
least Bell's vireo <i>Vireo bellii pusillus</i>	ABPBW01114	Endangered	Endangered	G5T2	S2	
Madera leptosiphon <i>Leptosiphon serrulatus</i>	PDPLM09130	None	None	G3	S3	1B.2
midvalley fairy shrimp <i>Branchinecta mesovallensis</i>	ICBRA03150	None	None	G2	S2S3	
molestan blister beetle <i>Lytta molesta</i>	IICOL4C030	None	None	G2	S2	
northern California legless lizard <i>Anniella pulchra</i>	ARACC01020	None	None	G3	S3	SSC
Northern Claypan Vernal Pool <i>Northern Claypan Vernal Pool</i>	CTT44120CA	None	None	G1	S1.1	
Northern Hardpan Vernal Pool <i>Northern Hardpan Vernal Pool</i>	CTT44110CA	None	None	G3	S3.1	
pallid bat <i>Antrozous pallidus</i>	AMACC10010	None	None	G5	S3	SSC
San Joaquin adobe sunburst <i>Pseudobahia peirsonii</i>	PDAST7P030	Threatened	Endangered	G1	S1	1B.1
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	AMAJA03041	Endangered	Threatened	G4T2	S2	
San Joaquin Pocket Mouse <i>Perognathus inornatus</i>	AMAFD01060	None	None	G2G3	S2S3	
San Joaquin Valley Orcutt grass <i>Orcuttia inaequalis</i>	PMPOA4G060	Threatened	Endangered	G1	S1	1B.1
Sanford's arrowhead <i>Sagittaria sanfordii</i>	PMALI040Q0	None	None	G3	S3	1B.2
snowy egret <i>Egretta thula</i>	ABNGA06030	None	None	G5	S4	
spiny-sepaled button-celery <i>Eryngium spinosepalum</i>	PDAPI0Z0Y0	None	None	G2	S2	1B.2
succulent owl's-clover <i>Castilleja campestris var. succulenta</i>	PDSCR0D3Z1	Threatened	Endangered	G4?T2T3	S2S3	1B.2
Swainson's hawk <i>Buteo swainsoni</i>	ABNKC19070	None	Threatened	G5	S3	
tricolored blackbird <i>Agelaius tricolor</i>	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	IICOL48011	Threatened	None	G3T2	S2	
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	ICBRA03030	Threatened	None	G3	S3	
western mastiff bat <i>Eumops perotis californicus</i>	AMACD02011	None	None	G5T4	S3S4	SSC



Selected Elements by Common Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
western pond turtle <i>Emys marmorata</i>	ARAAD02030	None	None	G3G4	S3	SSC
western spadefoot <i>Spea hammondi</i>	AAABF02020	None	None	G3	S3	SSC
western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	ABNRB02022	Threatened	Endangered	G5T2T3	S1	

Record Count: 43

Appendix C: NRCS Soils Report

FRESNO IRRIGATION DISTRICT
SAVORY POND PROJECT



United States
Department of
Agriculture

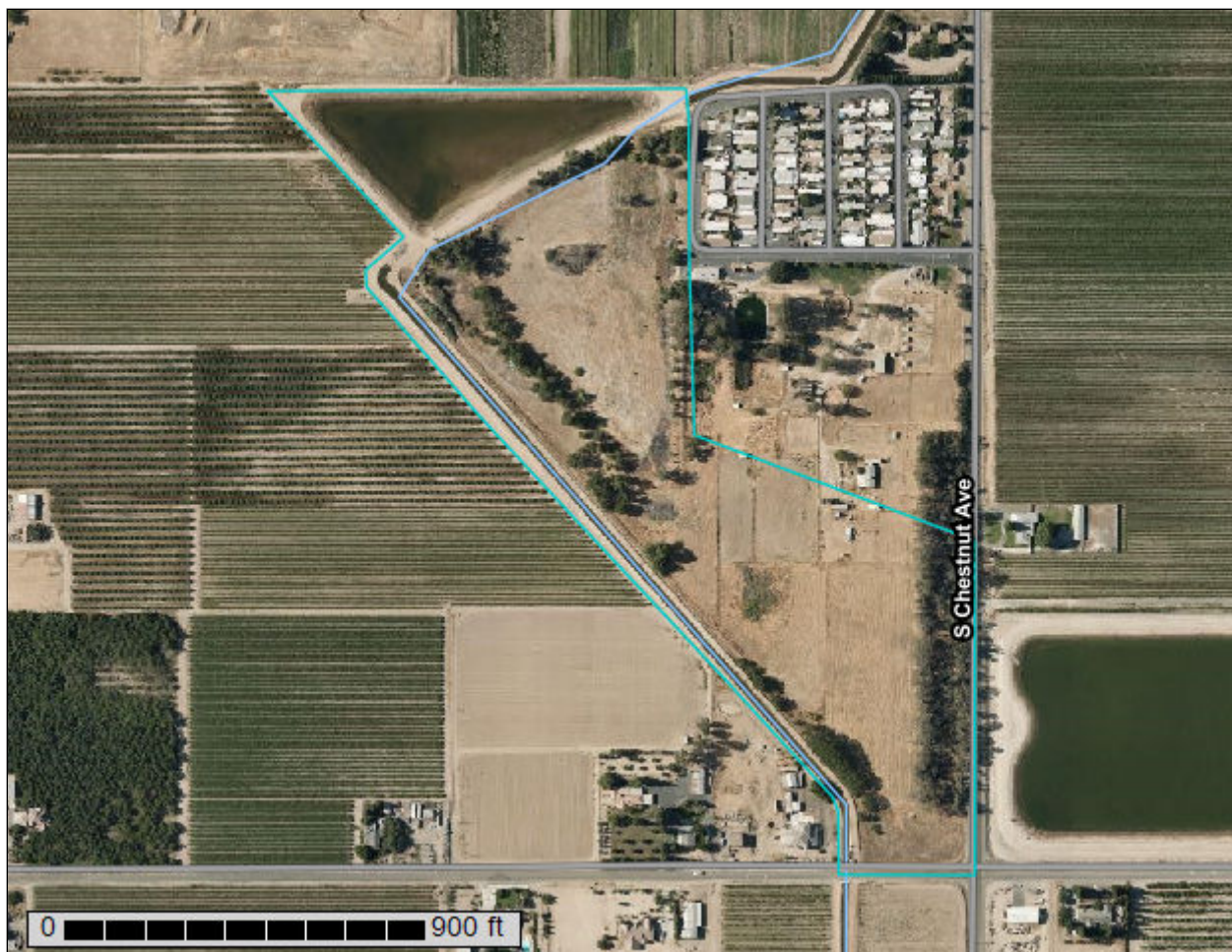
NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Eastern Fresno Area, California

**Savory Pond Project, Madera
County CA**



May 4, 2020

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

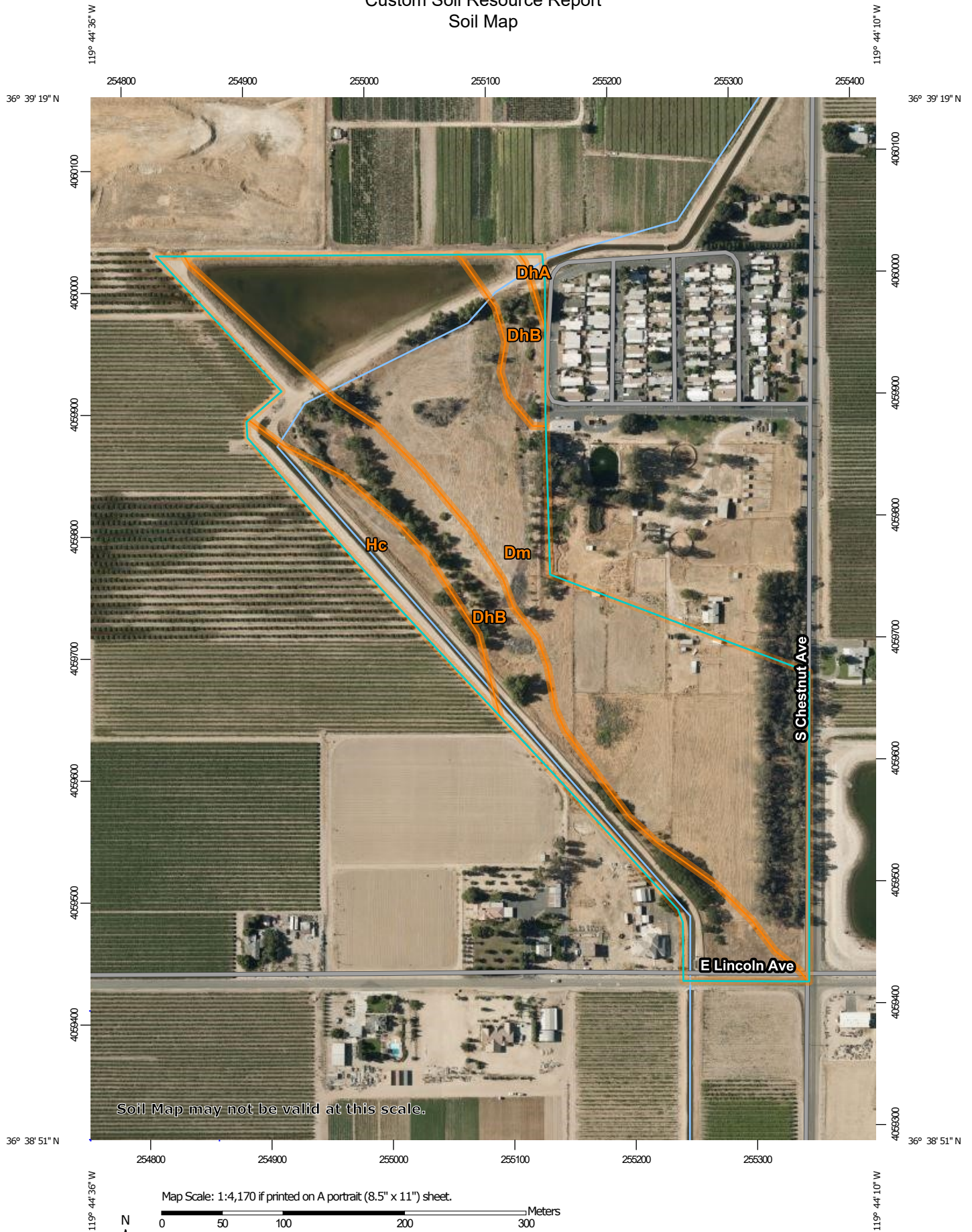
Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map




Custom Soil Resource Report


MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit


 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot


 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole

 Slide or Slip


 Sodic Spot


 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

Water Features

 Streams and Canals

Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eastern Fresno Area, California
Survey Area Data: Version 12, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 1, 2018—Jul 1, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
DhA	Delhi loamy sand, 0 to 3 percent slopes, MLRA 17	0.1	0.4%
DhB	Delhi loamy sand, 3 to 9 percent slopes	8.5	27.9%
Dm	Dello loamy sand	19.4	63.4%
Hc	Hanford sandy loam	2.5	8.2%
Totals for Area of Interest		30.6	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Eastern Fresno Area, California

DhA—Delhi loamy sand, 0 to 3 percent slopes, MLRA 17

Map Unit Setting

National map unit symbol: 2ss8r
Elevation: 30 to 430 feet
Mean annual precipitation: 9 to 16 inches
Mean annual air temperature: 59 to 64 degrees F
Frost-free period: 225 to 310 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Delhi and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Delhi

Setting

Landform: Dunes on fan remnants
Landform position (two-dimensional): Toeslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits derived from sandy alluvium derived from granite

Typical profile

A - 0 to 7 inches: loamy sand
C1 - 7 to 25 inches: loamy sand
C2 - 25 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline (0.0 to 1.0 mmhos/cm)
Available water storage in profile: Low (about 4.2 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Hanford

Percent of map unit: 6 percent
Landform: Depressions on fan remnants

Hydric soil rating: No

Dello

Percent of map unit: 6 percent

Landform: Depressions on fan remnants

Hydric soil rating: Yes

Grangeville

Percent of map unit: 1 percent

Hydric soil rating: No

Dinuba

Percent of map unit: 1 percent

Hydric soil rating: No

Hilmar

Percent of map unit: 1 percent

Hydric soil rating: No

DhB—Delhi loamy sand, 3 to 9 percent slopes

Map Unit Setting

National map unit symbol: hl3h

Elevation: 230 to 400 feet

Mean annual precipitation: 9 to 12 inches

Mean annual air temperature: 61 to 63 degrees F

Frost-free period: 225 to 250 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Delhi and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Delhi

Setting

Landform: Dunes on fan remnants

Landform position (two-dimensional): Toeslope, shoulder

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Eolian deposits derived from alluvium derived from granite

Typical profile

A - 0 to 7 inches: loamy sand

C1 - 7 to 25 inches: loamy sand

C2 - 25 to 60 inches: loamy sand

Properties and qualities

Slope: 3 to 9 percent

Depth to restrictive feature: More than 80 inches

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Natural drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): 3s
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Fresno

Percent of map unit: 12 percent
Landform: Fan remnants
Hydric soil rating: No

Unnamed, steeper slopes

Percent of map unit: 3 percent
Landform: Dunes on fan remnants
Hydric soil rating: No

Dm—Dello loamy sand

Map Unit Setting

National map unit symbol: hl3k
Elevation: 160 to 400 feet
Mean annual precipitation: 8 to 12 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 225 to 250 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Dello and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dello

Setting

Landform: Depressions on flood plains, depressions on alluvial fans
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope, rise
Down-slope shape: Concave, linear
Across-slope shape: Concave, linear
Parent material: Alluvium derived from granite

Typical profile

Ap - 0 to 8 inches: loamy sand
Cg1 - 8 to 36 inches: loamy sand
Cg2 - 36 to 60 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat poorly drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: About 36 to 60 inches
Frequency of flooding: Rare
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 4.1 inches)

Interpretive groups

Land capability classification (irrigated): 3w
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: A
Hydric soil rating: Yes

Minor Components

Unnamed

Percent of map unit: 13 percent
Landform: Depressions on flood plains
Hydric soil rating: Yes

Unnamed, hummock

Percent of map unit: 2 percent
Landform: Hummocks on alluvial fans, levees on flood plains
Hydric soil rating: No

Hc—Hanford sandy loam

Map Unit Setting

National map unit symbol: h15f
Elevation: 200 to 500 feet
Mean annual precipitation: 8 to 15 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 275 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Hanford and similar soils: 85 percent
Minor components: 15 percent

Custom Soil Resource Report

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hanford

Setting

Landform: Alluvial fans, flood plains
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Base slope, rise
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

Ap - 0 to 16 inches: sandy loam
C - 16 to 72 inches: sandy loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 10 percent
Landform: Alluvial fans, flood plains
Hydric soil rating: No

Unnamed, channeled

Percent of map unit: 5 percent
Landform: Channels on alluvial fans
Hydric soil rating: No

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Appendix C

Cultural Resources Information

Cultural Resources Information

Savory Pond Project

Southern San Joaquin Valley Information Center, CSUB, California Historical Resources Information System: Record Search 19-093, dated May 18, 2020 .

- There are three recorded resources within the project area, P-10-002960, 004303, and 004679.
- There have been three recorded resources within the one-half mile radius, P-10-004675, 004678, and 05933.

Native American Heritage Commission (NAHC): Sacred Lands File & Native American Contacts List Request, dated May 6, 2020.

- A Record Search of the NAHC Sacred Lands File was completed for the Area of Potential Effect (APE) with negative results
- A list of 13 tribes was provided, and letters to the 13 tribes were then mailed out May 7, 2020.
- No additional responses or additional cultural information was received.

AB 52 Consultation pursuant to Public Resource Code Section 21080.3.1

- Fresno Irrigation District has not received any letters from tribes regarding AB 52.
- Therefore no tribes were consulted on AB 52.



To: Briza Sholars
Provost & Pritchard Consulting Group
286 W. Cromwell Ave.
Fresno, CA 93711

Record Search 20-185

Date: May 18, 2020

Re: Fresno Irrigation District Savory Pond Project

County: Fresno

Map(s): Malaga 7.5'

CULTURAL RESOURCES RECORDS SEARCH

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

The following are the results of a search of the cultural resource files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, the OHP Built Environment Resources Directory, California State Historical Landmarks, California Register of Historical Resources, California Inventory of Historic Resources, and California Points of Historical Interest. Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the OHP are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area.

PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

According to the information in our files, there have been no previous cultural resource studies conducted within the project area. There have been four previous cultural resource studies conducted within the one-half mile radius, FR-01651, 01699, 01904, and 02331.

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

There are three recorded resources within the project area, P-10-002960, 004303, and 004679. There have been three recorded resources within the one-half mile radius, P-10-004675, 004678, and 05933. These resources consist of two historic era farming communities, two historic era canals, an historic era railroad, and an historic era windmill.

Resource P-10-002960, the Washington Irrigation Colony, has been given a National Register status code of 2S2, indicating it has been determined eligible for listing in the National Register of Historic Places by a consensus through the Section 106 process. Resource P-10-004679, North Branch of the Oleander Canal, has been given a National Register status code of 2D2, indicating it is a contributor of a district that has been determined eligible for the National Register of Historic Places by a consensus through the Section 106 process. Both resources are listed in the California Register of Historical Resources. There are no other recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

COMMENTS AND RECOMMENDATIONS

We understand this project consists of construction of the Fresno Irrigation District Savory Pond. Further, we understand the project area consist of an existing approximately 3.5 acre pond to the north of the existing culvert and approximately 20 acre pond to the south of the existing culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing. Because this project area is already developed with an existing pond, no further cultural resource investigation is recommended at this time. However, if the Oleander Canal will be effect by this project, then we recommend a qualified consultant be consulted to minimize impact to the historical integrity of the canal. Additionally, if cultural resources are unearthed during ground disturbance activities, all work must halt in the area of the find and a qualified, professional consultant should be called out to assess the findings and make the appropriate mitigation recommendations. A list of qualified consultants can be found at www.chrisinfo.org.

We also recommend that you contact the Native American Heritage Commission in Sacramento. They will provide you with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file in order to determine what sacred resources, if any, exist within this project area and the way in which these resources might be managed. Finally, please consult with the lead agency on this project to determine if any other cultural resource investigation is required. If you need any additional information or have any questions or concerns, please contact our office at (661) 654-2289.

By:

Celeste M. Thomson, Coordinator

Date: May 18, 2020

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.



NATIVE AMERICAN HERITAGE COMMISSION

May 6, 2020

Briza Sholars

Provost & Pritchard Consulting Group

Via Email to: BSholars@ppeng.com

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Re: CVL03215 Project, Fresno County

Dear Ms. Sholars:

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 Contacts List
May 6, 2020**

Big Sandy Rancheria of Western Mono Indians Elizabeth D. Kipp, Chairperson PO. Box 337 Auberry, CA 93602 lkipp@bsrnation.com (559) 374-0066 (559) 374-0055	Western Mono	Kings River Choinumni Farm Tribe Stan Alec 3515 East Fedora Avenue Fresno, CA 93726 (559) 647-3227 Cell	Foothill Yokuts Choinumni
Cold Springs Rancheria Carol Bill, Chairperson P.O. Box 209 Tollhouse, CA 93667 coldsprgstribes@netptc.net (559) 855-5043 (559) 855-4445 Fax	Mono	North Fork Mono Tribe Ron Goode, Chairperson 13396 Tollhouse Road Clovis, CA 93619 rwgoode911@hotmail.com (559) 299-3729 Home (559) 355-1774 - cell	Mono
Dumna Wo-Wah Tribal Goverment Robert Ledger Sr., Chairperson 2191 West Pico Ave. Fresno, CA 93705 ledgerrobert@ymail.com (559) 540-6346	Dumna/Foothill Yokuts Mono	Santa Rosa Rancheria Tachi Yokut Tribe Leo Sisco, Chairperson P.O. Box 8 Lemoore, CA 93245 (559) 924-1278 (559) 924-3583 Fax	Tache Tachi Yokut
Dunlap Band of Mono Indians Benjamin Charley Jr., Tribal Chair P.O. Box 14 Dunlap, CA 93621 ben.charley@yahoo.com (760) 258-5244	Mono	Table Mountain Rancheria Leanne Walker-Grant, Chairperson P.O. Box 410 Friant, CA 93626 rpennell@tmr.org (559) 822-2587 (559) 822-2693 Fax	Yokuts
Dunlap Band of Mono Indians Dirk Charley, Tribal Secretary 5509 E. McKenzie Avenue Fresno, CA 93727 dcharley2016@gmail.com (559) 554-5433	Mono	Table Mountain Rancheria Bob Pennell, Cultural Resources Director P.O. Box 410 Friant, CA 93626 rpennell@tmr.org (559) 325-0351 (559) 325-0394 Fax	Yokuts

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans Tribes for the proposed:
Fresno Irrigation District Savory Pond Project, Fresno County.

**Native American Heritage Commission
Native American Contacts List
May 6, 2020**

Traditional Choinumni Tribe David Alvarez, Chairperson 2415 E. Houston Avenue Fresno CA 93720 davealvarez@sbcglobal.net (559) 217-0396 Cell	Choinumni
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Traditional Choinumni Tribe Rick Osborne, Cultural Resources 2415 E. Houston Avenue Fresno CA 93720 (559) 324-8764 lemek@att.net	Choinumni
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Wuksache Indian Tribe/Eshom Valley Band Kenneth Woodrow, Chairperson 1179 Rock Haven Ct. Salinas CA 93906 kwood8934@aol.com (831) 443-9702	Foothill Yokuts Mono Wuksache
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This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

**This list is only applicable for contacting local Native Americans Tribes for the proposed:
Fresno Irrigation District Savory Pond Project, Fresno County.**

May 7, 2020

Santa Rosa Rancheria Tachi Yokut Tribe
Attn: Leo Sisco, Chariperson
P.O. Box 8
Lemoore CA 93245

RE: Fresno Irrigation District Savory Pond Project

Dear Mr. Barrios:

Provost and Pritchard Consulting Group, is providing cultural resources services in support of the Fresno Irrigation District Savory Project.

Fresno Irrigation District is proposing to construct the Savory Pond. The project consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20 acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing. The Oleander No. 16 Canal runs through the northern portion of the parcel. It delivers surface water to the existing 20± acre pond via an inlet structure with a canal gate and an 18-inch diameter pipeline. The canal also delivers surface water to the existing 3.5± acre pond via an inlet structure and 24-inch diameter pipeline to the pond's north corner. The inlet structure is located directly downstream of the Oleander No. 16 Canal culvert and utilizes a canal gate and long crested weir with flashboards for diversions. The Project will consist of two single cell recharge basins split by the Oleander No. 16 Canal culvert. The Area of Potential Effect is approximately 30 acres and is located at the NW corner of Chestnut and Lincoln Avenues in Fresno County.

Provost and Pritchard Consulting Group has requested a records search of the California Historic Resources Information System from the Southern San Joaquin Valley Information Center to identify any cultural resources within or adjacent to the Project Area. A search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed with negative results. The NAHC provided your name and address as a tribal contact that is culturally affiliated to the project area. If you have any information that you wish to share, or have questions or would like more information about the project, please do not hesitate to contact me by phone (559) 449-2700, email (bsholars@ppeng.com), or send a letter to my attention. I would appreciate any information you might provide to assist us with our inventory efforts.

Be assured that any locations of archaeological sites, cemeteries, or sacred places will be treated confidentially, as required by law, and not disclosed in any document available to the general public.

Sincerely, Briza Sholars



encl.: Topo Quad Map

May 7, 2020

North Fork Mono Tribe
Attn: Ron Goode, Chairperson
13396 Tollhouse Road
Clovis CA 93619

RE: Fresno Irrigation District Savory Pond Project

Dear Mr. Goode:

Provost and Pritchard Consulting Group, is providing cultural resources services in support of the Fresno Irrigation District Savory Pond Project.

The proposed project is for the construction of the Fresno Irrigation District Savory Pond. The project consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20 acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing. The Oleander No. 16 Canal runs through the northern portion of the parcel. It delivers surface water to the existing 20± acre pond via an inlet structure with a canal gate and an 18-inch diameter pipeline. The Project will consist of two single cell recharge basins split by the Oleander No. 16 Canal culvert. The Area of Potential Effect is approximately 30 acres and is located at the NW corner of Chestnut and Lincoln Avenues in Fresno County, APN's 334-33-072 and 334-33-074.

Provost and Pritchard Consulting Group has requested a records search of the California Historic Resources Information System from the Southern San Joaquin Valley Information Center to identify any cultural resources within or adjacent to the Project Area. A search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed with negative results. The NAHC provided your name and address as a tribal contact that is culturally affiliated to the project area. If you have any information that you wish to share, or have questions or would like more information about the project, please do not hesitate to contact me by phone (559) 449-2700, email (bsholars@ppeng.com), or send a letter to my attention. I would appreciate any information you might provide to assist us with our inventory efforts.

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Sincerely, Briza Sholars



encl.: Topo Quad Map

May 7, 2020

Big Sandy Rancheria of Western Mono Indians
Attn: Elizabeth D. Kipp, Chairperson
P.O. Box 337
Auberry, CA 93602

RE: Fresno Irrigation District Savory Pond Project

Dear Ms. Kipp:

Provost and Pritchard Consulting Group, is providing cultural resources services in support of the Fresno Irrigation District Savory Pond Project.

The proposed project is for the construction of the Fresno Irrigation District Savory Pond. The project consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20 acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing. The Oleander No. 16 Canal runs through the northern portion of the parcel. It delivers surface water to the existing 20± acre pond via an inlet structure with a canal gate and an 18-inch diameter pipeline. The Project will consist of two single cell recharge basins split by the Oleander No. 16 Canal culvert. The Area of Potential Effect is approximately 30 acres and is located at the NW corner of Chestnut and Lincoln Avenues in Fresno County, APN's 334-33-072 and 334-33-074.

Provost and Pritchard Consulting Group has requested a records search of the California Historic Resources Information System from the Southern San Joaquin Valley Information Center to identify any cultural resources within or adjacent to the Project Area. A search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed with negative results. The NAHC provided your name and address as a tribal contact that is culturally affiliated to the project area. If you have any information that you wish to share, or have questions or would like more information about the project, please do not hesitate to contact me by phone (559) 449-2700, email (bsholars@ppeng.com), or send a letter to my attention. I would appreciate any information you might provide to assist us with our inventory efforts.

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Sincerely, Briza Sholars



encl.: Topo Quad Map

May 7, 2020

Kings River Choinumni Farm Tribe
Attn: Stan Alec
3515 East Fedora Ave
Fresno CA, 93726

RE: Fresno Irrigation District Savory Pond Project

Dear Mr. Alec:

Provost and Pritchard Consulting Group, is providing cultural resources services in support of the Fresno Irrigation District Savory Pond Project.

The proposed project is for the construction of the Fresno Irrigation District Savory Pond. The project consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20 acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing. The Oleander No. 16 Canal runs through the northern portion of the parcel. It delivers surface water to the existing 20± acre pond via an inlet structure with a canal gate and an 18-inch diameter pipeline. The Project will consist of two single cell recharge basins split by the Oleander No. 16 Canal culvert. The Area of Potential Effect is approximately 30 acres and is located at the NW corner of Chestnut and Lincoln Avenues in Fresno County, APN's 334-33-072 and 334-33-074.

Provost and Pritchard Consulting Group has requested a records search of the California Historic Resources Information System from the Southern San Joaquin Valley Information Center to identify any cultural resources within or adjacent to the Project Area. A search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed with negative results. The NAHC provided your name and address as a tribal contact that is culturally affiliated to the project area. If you have any information that you wish to share, or have questions or would like more information about the project, please do not hesitate to contact me by phone (559) 449-2700, email (bsholars@ppeng.com), or send a letter to my attention. I would appreciate any information you might provide to assist us with our inventory efforts.

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Sincerely, Briza Sholars



encl.: Topo Quad Map

May 7, 2020

Dunlap Band of Mono Indians
Attn: Dirk Charley, Tribal Secretary
5509 E. McKenzie Avenue
Fresno CA 93727

RE: Fresno Irrigation District Savory Pond Project

Dear Mr. Charley:

Provost and Pritchard Consulting Group, is providing cultural resources services in support of the Fresno Irrigation District Savory Pond Project.

The proposed project is for the construction of the Fresno Irrigation District Savory Pond. The project consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20 acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing. The Oleander No. 16 Canal runs through the northern portion of the parcel. It delivers surface water to the existing 20± acre pond via an inlet structure with a canal gate and an 18-inch diameter pipeline. The Project will consist of two single cell recharge basins split by the Oleander No. 16 Canal culvert. The Area of Potential Effect is approximately 30 acres and is located at the NW corner of Chestnut and Lincoln Avenues in Fresno County, APN's 334-33-072 and 334-33-074.

Provost and Pritchard Consulting Group has requested a records search of the California Historic Resources Information System from the Southern San Joaquin Valley Information Center to identify any cultural resources within or adjacent to the Project Area. A search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed with negative results. The NAHC provided your name and address as a tribal contact that is culturally affiliated to the project area. If you have any information that you wish to share, or have questions or would like more information about the project, please do not hesitate to contact me by phone (559) 449-2700, email (bsholars@ppeng.com), or send a letter to my attention. I would appreciate any information you might provide to assist us with our inventory efforts.

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Sincerely, Briza Sholars



encl.: Topo Quad Map

May 7, 2020

Dunlap Band of Mono Indians
Attn: Benjamin Charley Jr., Tribal Chair
P.O. Box 14
Dunlap CA 93621

RE: Fresno Irrigation District Savory Pond Project

Dear Mr. Charley:


Provost and Pritchard Consulting Group, is providing cultural resources services in support of the Fresno Irrigation District Savory Pond Project.

The proposed project is for the construction of the Fresno Irrigation District Savory Pond. The project consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20 acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing. The Oleander No. 16 Canal runs through the northern portion of the parcel. It delivers surface water to the existing 20± acre pond via an inlet structure with a canal gate and an 18-inch diameter pipeline. The Project will consist of two single cell recharge basins split by the Oleander No. 16 Canal culvert. The Area of Potential Effect is approximately 30 acres and is located at the NW corner of Chestnut and Lincoln Avenues in Fresno County, APN's 334-33-072 and 334-33-074.

Provost and Pritchard Consulting Group has requested a records search of the California Historic Resources Information System from the Southern San Joaquin Valley Information Center to identify any cultural resources within or adjacent to the Project Area. A search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed with negative results. The NAHC provided your name and address as a tribal contact that is culturally affiliated to the project area. If you have any information that you wish to share, or have questions or would like more information about the project, please do not hesitate to contact me by phone (559) 449-2700, email (bsholars@ppeng.com), or send a letter to my attention. I would appreciate any information you might provide to assist us with our inventory efforts.

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Sincerely, Briza Sholars



encl.: Topo Quad Map

May 7, 2020

Dumna Wo-Wah Tribal Government
Attn: Robert Ledger Sr., Chairperson
2191 West Pico Ave
Fresno CA 93705

RE: Fresno Irrigation District Savory Pond Project

Dear Mr. Ledger:

Provost and Pritchard Consulting Group, is providing cultural resources services in support of the Fresno Irrigation District Savory Pond Project.

The proposed project is for the construction of the Fresno Irrigation District Savory Pond. The project consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20 acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing. The Oleander No. 16 Canal runs through the northern portion of the parcel. It delivers surface water to the existing 20± acre pond via an inlet structure with a canal gate and an 18-inch diameter pipeline. The Project will consist of two single cell recharge basins split by the Oleander No. 16 Canal culvert. The Area of Potential Effect is approximately 30 acres and is located at the NW corner of Chestnut and Lincoln Avenues in Fresno County, APN's 334-33-072 and 334-33-074.

Provost and Pritchard Consulting Group has requested a records search of the California Historic Resources Information System from the Southern San Joaquin Valley Information Center to identify any cultural resources within or adjacent to the Project Area. A search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed with negative results. The NAHC provided your name and address as a tribal contact that is culturally affiliated to the project area. If you have any information that you wish to share, or have questions or would like more information about the project, please do not hesitate to contact me by phone (559) 449-2700, email (bsholars@ppeng.com), or send a letter to my attention. I would appreciate any information you might provide to assist us with our inventory efforts.

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Sincerely, Briza Sholars



encl.: Topo Quad Map

May 7, 2020

Cold Springs Rancheria
Attn: Carol Bill, Chairperson
P.O. Box 209
Tollhouse CA 93667

RE: Fresno Irrigation District Savory Pond Project

Dear Ms. Bill:

Provost and Pritchard Consulting Group, is providing cultural resources services in support of the Fresno Irrigation District Savory Pond Project.

The proposed project is for the construction of the Fresno Irrigation District Savory Pond. The project consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20 acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing. The Oleander No. 16 Canal runs through the northern portion of the parcel. It delivers surface water to the existing 20± acre pond via an inlet structure with a canal gate and an 18-inch diameter pipeline. The Project will consist of two single cell recharge basins split by the Oleander No. 16 Canal culvert. The Area of Potential Effect is approximately 30 acres and is located at the NW corner of Chestnut and Lincoln Avenues in Fresno County, APN's 334-33-072 and 334-33-074.

Provost and Pritchard Consulting Group has requested a records search of the California Historic Resources Information System from the Southern San Joaquin Valley Information Center to identify any cultural resources within or adjacent to the Project Area. A search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed with negative results. The NAHC provided your name and address as a tribal contact that is culturally affiliated to the project area. If you have any information that you wish to share, or have questions or would like more information about the project, please do not hesitate to contact me by phone (559) 449-2700, email (bsholars@ppeng.com), or send a letter to my attention. I would appreciate any information you might provide to assist us with our inventory efforts.

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Sincerely, Briza Sholars



encl.: Topo Quad Map

May 7, 2020

Wuksache Indian Tribe/Eshom Valley Band
Attn: Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas CA 93906

RE: Fresno Irrigation District Savory Pond Project

Dear Mr. Woodrow:

Provost and Pritchard Consulting Group, is providing cultural resources services in support of the Fresno Irrigation District Savory Pond Project.

The proposed project is for the construction of the Fresno Irrigation District Savory Pond. The project consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20 acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing. The Oleander No. 16 Canal runs through the northern portion of the parcel. It delivers surface water to the existing 20± acre pond via an inlet structure with a canal gate and an 18-inch diameter pipeline. The Project will consist of two single cell recharge basins split by the Oleander No. 16 Canal culvert. The Area of Potential Effect is approximately 30 acres and is located at the NW corner of Chestnut and Lincoln Avenues in Fresno County, APN's 334-33-072 and 334-33-074.

Provost and Pritchard Consulting Group has requested a records search of the California Historic Resources Information System from the Southern San Joaquin Valley Information Center to identify any cultural resources within or adjacent to the Project Area. A search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed with negative results. The NAHC provided your name and address as a tribal contact that is culturally affiliated to the project area. If you have any information that you wish to share, or have questions or would like more information about the project, please do not hesitate to contact me by phone (559) 449-2700, email (bsholars@ppeng.com), or send a letter to my attention. I would appreciate any information you might provide to assist us with our inventory efforts.

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Sincerely, Briza Sholars



encl.: Topo Quad Map

May 7, 2020

Traditional Choinumni Tribe
Attn: Rick Osborne, Cultural Resources
2415 E. Houston Ave
Fresno CA 93720

RE: Fresno Irrigation District Savory Pond Project

Dear Mr. Osbourne:

Provost and Pritchard Consulting Group, is providing cultural resources services in support of the Fresno Irrigation District Savory Pond Project.

The proposed project is for the construction of the Fresno Irrigation District Savory Pond. The project consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20 acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing. The Oleander No. 16 Canal runs through the northern portion of the parcel. It delivers surface water to the existing 20± acre pond via an inlet structure with a canal gate and an 18-inch diameter pipeline. The Project will consist of two single cell recharge basins split by the Oleander No. 16 Canal culvert. The Area of Potential Effect is approximately 30 acres and is located at the NW corner of Chestnut and Lincoln Avenues in Fresno County, APN's 334-33-072 and 334-33-074.

Provost and Pritchard Consulting Group has requested a records search of the California Historic Resources Information System from the Southern San Joaquin Valley Information Center to identify any cultural resources within or adjacent to the Project Area. A search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed with negative results. The NAHC provided your name and address as a tribal contact that is culturally affiliated to the project area. If you have any information that you wish to share, or have questions or would like more information about the project, please do not hesitate to contact me by phone (559) 449-2700, email (bsholars@ppeng.com), or send a letter to my attention. I would appreciate any information you might provide to assist us with our inventory efforts.

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Sincerely, Briza Sholars



encl.: Topo Quad Map

March 20, 2019

Traditional Choinumni Tribe
Attn: David Alvarez, Chairperson
2415 E. Houston Ave
Fresno CA 93720

RE: Fresno Irrigation District Savory Pond Project

Dear Mr. Alvarez:

Provost and Pritchard Consulting Group, is providing cultural resources services in support of the Fresno Irrigation District Savory Pond Project.

The proposed project is for the construction of the Fresno Irrigation District Savory Pond. The project consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20 acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing. The Oleander No. 16 Canal runs through the northern portion of the parcel. It delivers surface water to the existing 20± acre pond via an inlet structure with a canal gate and an 18-inch diameter pipeline. The Project will consist of two single cell recharge basins split by the Oleander No. 16 Canal culvert. The Area of Potential Effect is approximately 30 acres and is located at the NW corner of Chestnut and Lincoln Avenues in Fresno County, APN's 334-33-072 and 334-33-074.

Provost and Pritchard Consulting Group has requested a records search of the California Historic Resources Information System from the Southern San Joaquin Valley Information Center to identify any cultural resources within or adjacent to the Project Area. A search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed with negative results. The NAHC provided your name and address as a tribal contact that is culturally affiliated to the project area. If you have any information that you wish to share, or have questions or would like more information about the project, please do not hesitate to contact me by phone (559) 449-2700, email (bsholars@ppeng.com), or send a letter to my attention. I would appreciate any information you might provide to assist us with our inventory efforts.

Be assured that any locations of archaeological sites, cemeteries, or sacred places will be treated confidentially, as required by law, and not disclosed in any document available to the general public.

Sincerely, Briza Sholars



encl.: Topo Quad Map

May 7, 2020

Table Mountain Rancheria
Attn: Bob Pennell, Cultural Resources Director
P.O. Box 410
Friant CA 93626

RE: Fresno Irrigation District Savory Pond Project

Dear Mr. Pennell:

Provost and Pritchard Consulting Group, is providing cultural resources services in support of the Fresno Irrigation District Savory Pond Project.

The proposed project is for the construction of the Fresno Irrigation District Savory Pond. The project consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20 acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing. The Oleander No. 16 Canal runs through the northern portion of the parcel. It delivers surface water to the existing 20± acre pond via an inlet structure with a canal gate and an 18-inch diameter pipeline. The Project will consist of two single cell recharge basins split by the Oleander No. 16 Canal culvert. The Area of Potential Effect is approximately 30 acres and is located at the NW corner of Chestnut and Lincoln Avenues in Fresno County, APN's 334-33-072 and 334-33-074.

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Sincerely, Briza Sholars



encl.: Topo Quad Map

May 7, 2020

Table Mountain Rancheria
Attn: :Leanne Walker-Grant, Chairperson
P.O. Box 410
Friant CA 93626

RE: Fresno Irrigation District Savory Pond Project

Dear Ms. Walker-Grant:

Provost and Pritchard Consulting Group, is providing cultural resources services in support of the Fresno Irrigation District Savory Pond Project.

The proposed project is for the construction of the Fresno Irrigation District Savory Pond. The project consists of an existing 3.5± acre pond to the north of the existing culvert and approximately 20 acres to the south of the culvert which currently contains an existing storm drainage pond along with horse stables, small structures, and fencing. The Oleander No. 16 Canal runs through the northern portion of the parcel. It delivers surface water to the existing 20± acre pond via an inlet structure with a canal gate and an 18-inch diameter pipeline. The Project will consist of two single cell recharge basins split by the Oleander No. 16 Canal culvert. The Area of Potential Effect is approximately 30 acres and is located at the NW corner of Chestnut and Lincoln Avenues in Fresno County, APN's 334-33-072 and 334-33-074.

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Sincerely, Briza Sholars



encl.: Topo Quad Map