RIVERDALE IRRIGATION DISTRICT BLYTHE AVE RECHARGE BASIN PROJECT

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

APRIL 2022

SCH NO.

PREPARED FOR:

Riverdale Irrigation District
21027 S. Brawley Avenue
Riverdale, CA 93656

PREPARED BY:

Provost & Pritchard Consulting Group

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ACRONYMS AND ABBREVIATIONS

AB ..... Assembly Bill
APE ..... Area of Potential Effect
APN ..... Assessor's Parcel Number
BAAQMD ..... Bay Area Air Quality Management District
BMP ..... Best Management Practices
CalEEMod ..... California Emissions Estimator Modeling (software)
CARB ..... California Air Resources Board
CCAA ..... California Clean Air Act
CDFW ..... California Fish and Wildlife
CEQA ..... California Environmental Quality Act
CGS ..... California Geological Survey
CH_4 ..... Methane
CHRIS ..... California Historical Resources Information System
CNDDB ..... California Natural Diversity Database
CNPS ..... California Native Plant Society
CO ..... Carbone Monoxide
CO_2 ..... Carbon dioxide
County ..... Fresno County
CRHR ..... California Register of Historical Resources
dBA ..... A-weighted decibels
DFIRM ..... Digital Flood Insurance Rate Map
District ..... Riverdale Irrigation District
DOC ..... Department of Conservation
DPM ..... Diesel Particulate Matter
DTSC ..... Department of Toxic Substances Control
ECOS ..... (USFWS) Environmental Conservation Online System
EIR ..... Environmental Impact Report
EPA ..... Environmental Protection Agency
ESA ..... Environmental Site Assessment
FEMA ..... Federal Emergency Management Agency
FMMP ..... Farmland Mapping and Monitoring Program

GHG .....Greenhouse Gas
GIS ..... Geographic Information System
GSA .....Groundwater Sustainability Agency
GSP .....Groundwater Sustainability Plan
GWP .....Global Warming Potential
HUC ..... Hydrologic Unit Code
IPaC ..... U.S. Fish and Wildlife Service's Information for Planning and Consultation system
IS ..... Initial Study
IS/MND.....Initial Study/Mitigated Negative Declaration
km ..... kilometers
MBTA.....Migratory Bird Act
MMRP..... Mitigation Monitoring and Reporting Program
MND ..... Mitigated Negative Declaration
MOL ..... Mines Online (website)
MRZ ..... Mineral Resource Zones
NAAQS..... National Ambient Air Quality Standards
NAHC..... Native American Heritage Commission
ND .....Negative Declaration
NEPA.....National Environmental Policy Act
NFKGSA ..... North Fork Kings Groundwater Sustainability Agency
NO_2 ..... Nitrogen Dioxide
NOx ..... Nitrogen Oxides
NRCS..... Natural Resources Conservation Service
NRHP ..... National Register of Historic Places
O_3 .....Ozone
Pb ..... Lead
PM_{10} ..... particulate matter 10 microns in size
$PM_{2.5}$ ..... particulate matter 2.5 microns in size
ppb .....parts per billion
ppm .....parts per million
Project..... Blythe Avenue Recharge Basin Project
Reclamation..... United States Bureau of Reclamation
ROG .....Reactive Organic Gases

RWQCB ..... Regional Water Quality Control Board
SB ..... Senate Bill
SGMA ..... Sustainable Groundwater Management Act
SJVAB ..... San Joaquin Valley Air Basin
SJVAPCD ..... San Joaquin Valley Air Pollution Control District
SO_2 ..... Sulfur Dioxide
SSJVIC ..... Southern San Joaquin Valley Information Center
SR ..... State Route
SWPPP ..... Storm Water Pollution Prevention Plan
SWRCB ..... State Water Resources Control Board
TAC ..... Toxic Air Contaminants
TPY ..... tons per year
USACE ..... United States Army Corps of Engineers
USC ..... United States Code
USDA ..... United States Department of Agriculture
USFWS ..... United States Fish and Wildlife Service
µg/m3 ..... micrograms per cubic meter
WDR ..... Waste Discharge Requirements

CHAPTER 1 INTRODUCTION

Provost & Pritchard Consulting Group (Provost & Pritchard) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) on behalf of Riverdale Irrigation District (District) to address the potential environmental effects of the Blythe Ave Recharge Basin Project (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 Project.

The site and the Project are described in detail in 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 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. Chapter 1 Introduction, provides an overview of the Project and the CEQA process. Chapter 2 Project Description, provides a detailed description of proposed Project components and objectives. Chapter 3 Determination, the Lead Agency's determination based upon this initial evaluation. Chapter 4 Environmental Impact Analysis presents the CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible mitigation measures. If the Project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the Project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. Chapter 5 Mitigation, Monitoring, and Reporting Program (MMRP), provides the

proposed mitigation measures, implementation timelines, and the entity/agency responsible for ensuring implementation. Chapter 6 details the documents and reports this document relies upon to provide its analysis.

The Air Quality and Greenhouse Gas Emissions Model, Biological Evaluation, and Cultural Resources Information, are provided as technical Appendix A, Appendix B, and Appendix C, respectively, at the end of this document.

CHAPTER 2 PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND

2.1.1 Project Title

Blythe Ave Recharge Basin Project

2.1.2 Lead Agency Name and Address

Riverdale Irrigation District
21027 S. Brawley Ave
Riverdale, CA 93656

2.1.3 Contact Person and Phone Number

Lead Agency Contact
Kim Mayfield
riverdaleirrig@gmail.com

Mailing Address
PO Box 683
Riverdale, CA 93656

Physical Address
21027 S. Brawley Ave
Riverdale, CA 93656
(559) 867-3123

CEQA Consultant

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

2.1.4 Project Location

The Project is located in Riverdale, Fresno County, California, approximately 194 miles South of Sacramento and 106 miles North of Bakersfield (see Figure 2-1 and Figure 2-2). The Project site is located on Assessor's Parcel Numbers (APN) 053-200-09S, 053-440-18S, and 053-440-39S. Township 17S, Section 23, Range 19E. The centroid of the Project site is 36°26'15.4"N 119°52'57.8"W. The area of potential effect (APE) is approximately 24 acres including a 10 acre basin site and a 13 acre basin site, in addition to small pipeline connections.

2.1.5 General Plan Designation and Zoning

Project Area	General Plan Designation	Zoning District
ONSITE	Agriculture	Exclusive Agriculture
ADJACENT LANDS	Agriculture	Exclusive Agriculture

2.1.6 Description of Project

Project Background and Purpose

The Riverdale Irrigation District (District) is a Water contractor in the North Fork Kings Subbasin, in Division 3, in south-central Fresno County. The District's boundary extends from near the Kings County line on the south to Murphy Slough on the north, and from Fruit Avenue on the east to Fresno Slough on the west. It encompasses approximately 15,142 acres (24 square miles). The District provides irrigation water for agriculture through a series of canals.

The District acquired approximately 24 acres of property (APNs 053-200-09S (05320028ST), 053-440-18S, and 053-440-39S) close to the intersection of W Mount Whitney Avenue and S Blythe Avenue to construct basins to provide for sustainable management of surface and groundwater. The properties are located in Riverdale, CA, a Census Designated Place in the far south-southwest Fresno County. These lands historically have been farmed and are now vacant.

The historic passage of Sustainable Groundwater Management Act (SGMA) in 2014 set forth a statewide framework to help protect groundwater resources over the long-term. SGMA is comprised from a three-bill legislative package, including AB 1739 (Dickinson), SB 1168 (Pavley), and SB 1319 (Pavley), and subsequent statewide Regulations. In signing SGMA, then-Governor Jerry Brown emphasized that "groundwater management in California is best accomplished locally." (Department of Water Resources Sustainable Groundwater Management Act (SGMA) (ca.gov)).

Due to the implementation of SGMA the District is pursing projects to enhance groundwater levels and achieve sustainability, through groundwater recharge and groundwater banking for recovery in dry years.

Project Description

The Proposed Project involves one phase of construction including two groundwater recharge basin facilities. The recharge water will be recovered in dry years, for use in the District efforts to achieve groundwater sustainability.

Basins

Construction of the project will include equipment mobilization, excavation of earthwork for recharge basins, and construction of basin perimeter berms at both sites. Project components could include constructing ponds/cells within the two separate basins, as well as performance testing and demobilization. Depth of cut is estimated to be in the range of 3 to 6 feet, with an estimated volume of 100,000 cubic yards of material, which will be excavated and compacted on site. New berm construction would not exceed six feet in height, measured from the exterior toe to the top of new berm. The Project will also require modification or replacement of existing structures and a flow measurement standpipe structure.

Pipelines

There are two tie-in locations to the existing Turner Ditch canal. One proposed 500-foot-long pipeline will connect the southern property to the canal. Additionally, a 50-foot pipeline will connect the northern property. Diameter of the pipelines will be 60 inches or less.

Turnouts

The proposed project will include two turnouts with capacity for 35 cfs. The project will also include a proposed flow measurement standpipe structure.

Construction Schedule

Construction of the 23 acres of basins is expected to take approximately six (6) months, and material will be balanced on site.

Equipment

- Three Scrapers
- Two Sheeps foot compactors (Large and Small dependent on area conditions)
- One Excavator
- One D9 dozer
- One large tractor and large discing unit
- Two blades
- Water for dust control and conditioning soil for compaction/electrical consumption
    - A 12,000 gallon water tank continually being filled by well
- Two water trucks, 2,500 gallon truck and 4,000 gallons
- One large watercannon and hoses

Operation and Maintenance

It is anticipated that the Project will primarily recharge groundwater water. The basins and its associated facilities will be maintained by District staff.

2.1.7 Site and Surrounding Land Uses and Setting

Table 2-1: Existing Uses, General Plan Designation, & Zone Districts of Surrounding Properties

Direction from Project Site	Existing Use	General Plan Designation	Zone District
NORTH	Agriculture	Agriculture	Exclusive Agriculture
EAST	Agriculture	Agriculture	Exclusive Agriculture
SOUTH	Agriculture	Agriculture	Exclusive Agriculture
WEST	Agriculture	Agriculture	Exclusive Agriculture

2.1.8 Other Public Agencies Whose Approval May Be Required

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

2.1.9 Consultation with California Native American Tribes

Public Resources Code Section 21080.3.1, *et seq. (codification of AB 52, 2013-14)*) requires that a lead agency, within 14 days of determining that it will 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 will be made.

Riverdale Irrigation District has not received any written correspondence from any Native America Tribes pursuant to Public Resources Code Section 21080.3.1 requesting notification of proposed Project.

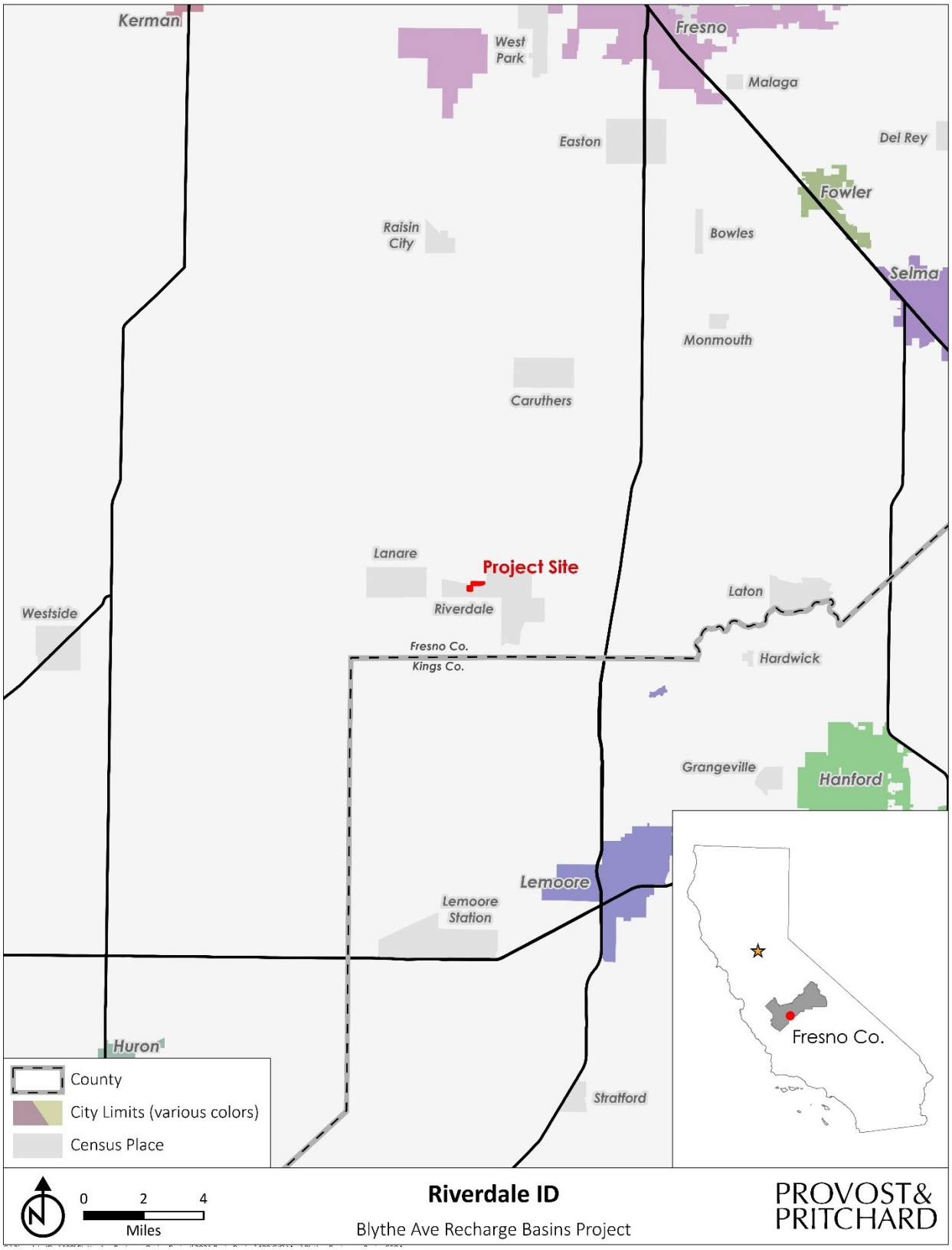

Figure 2-1: Regional Location Map

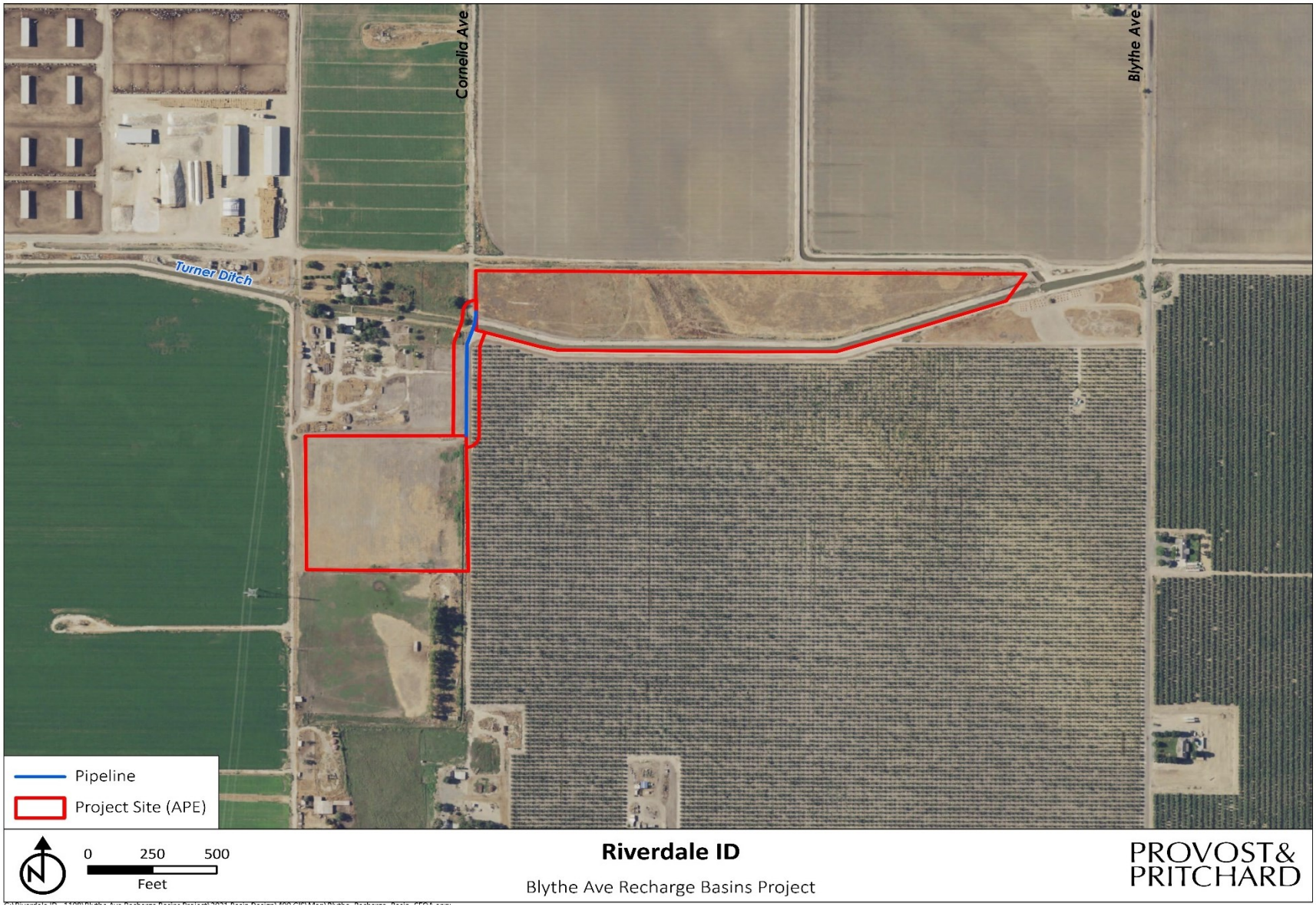

Figure 2-2: Area of Potential Effect Map

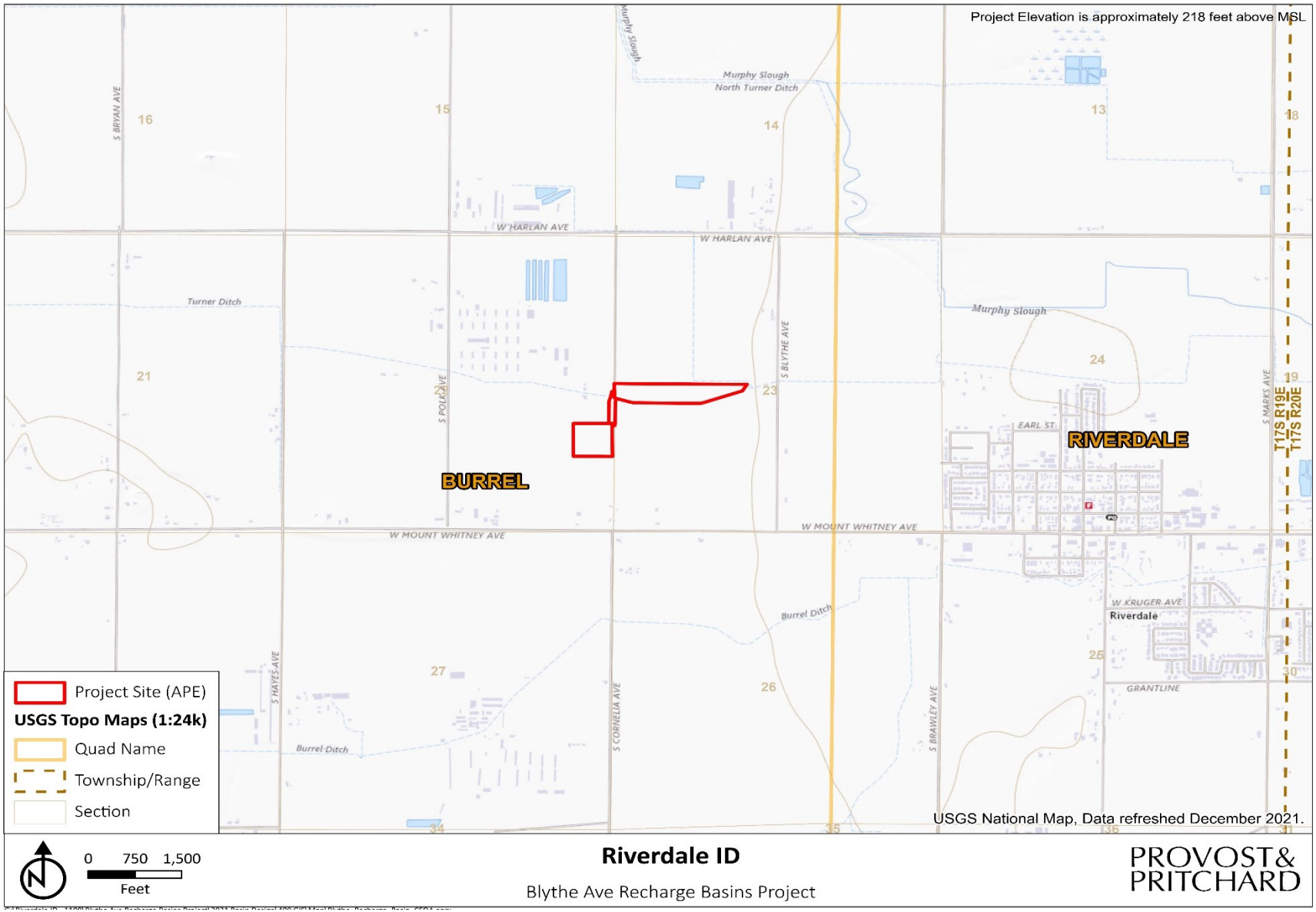

Figure 2-3: Topographic Quadrangle Map

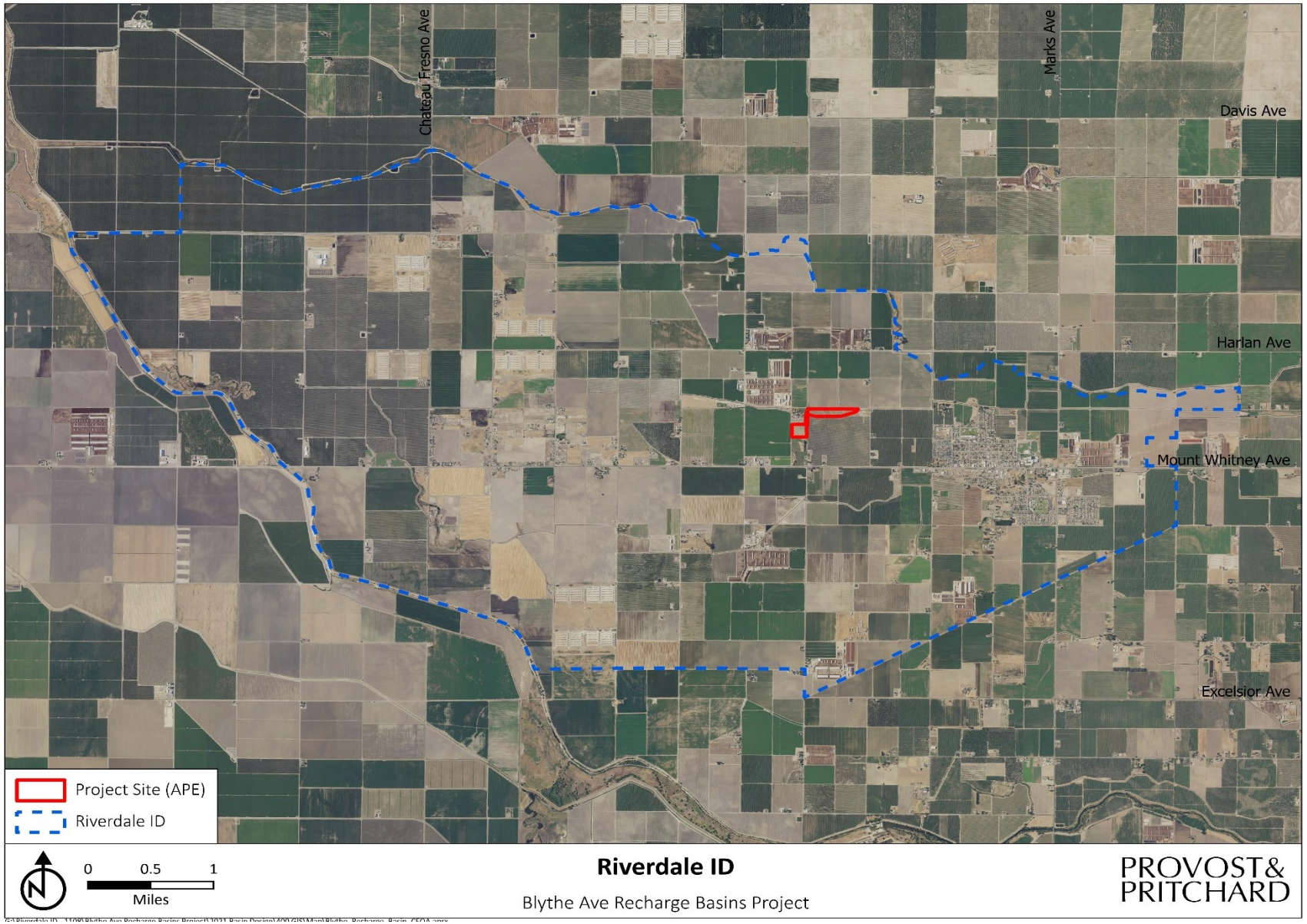

Figure 2-4: District Boundary Map

CHAPTER 3 DETERMINATION

3.1 POTENTIAL ENVIRONMENTAL IMPACTS

As indicated by the discussions of existing and baseline conditions, and impact analyses that follow in this Chapter, environmental factors not checked below would have no impacts or less than significant impacts resulting from the project. Environmental factors that are. checked below would have potentially significant impacts resulting from the project. Mitigation measures are recommended for each of the potentially significant impacts that would reduce the impact to less than significant.

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

The analyses of environmental impacts in Chapter 4 Impact Analysis result in an impact statement, which shall have the following meanings.

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 will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

3.2 DETERMINATION

On the basis of this initial evaluation (to be completed by the Lead Agency):

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

4-6-22
Date

Leonard Acquistapace / President
Printed Name/Position

CHAPTER 4 ENVIRONMENTAL IMPACT ANALYSIS

4.1 AESTHETICS

Table 4-1: Aesthetics Impacts

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 substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

4.1.1 Baseline Conditions

The Proposed Project is located in the Census designated community of Riverdale, CA. Lands in the Proposed Project's vicinity consist of relatively flat, irrigated farmland. Agricultural practices in the vicinity consist of row crop, field crop and orchard cultivation. The Project site is zoned as Farmland of Local Importance, and its surrounded by Prime Farmland.

According to the California State Scenic Highway the closest eligible and officially designated scenic highway is State Route 198 (ending at Route 33) to the southwest of the site, which is approximately 23.8 miles from the project.[1] There are no known historic buildings in the vicinity of the project.

[1] (California Department of Transporation 2021)

4.1.2 Impact Analysis

a) Have substantial adverse effect on a scenic vista?

No Impact. The Project proposes the construction of groundwater recharge basins facilities, on approximately 24 acres in an agricultural area. The nearest scenic vista to the Project is State Route 198 located southwest of the site, which is about 23.8 miles from the project site. The Project site is not within the viewshed of this features and the site does not stand out from its surroundings in any notable fashion. Therefore, there would be no impact to the scenic vista.

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

No Impact. The Project does not propose to remove any non-agricultural trees, rock outcroppings, or historic buildings. Furthermore, the Project is not visible from a designated scenic highway or eligible State Route 198. There would be not impact.

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?

No Impact. The visual character of the Project area is dominated by the existing farmland and crops. The water recharge basins would be consistent with agricultural uses and other uses in the area and would not substantially degrade the visual character of the area. Therefore, there would be no impact.

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

No Impact. The area surrounding the Project site is primarily agriculture land and associated agricultural uses. There would not be any light fixtures on poles being installed as part of the Project. Vehicular traffic to the site after the facility is constructed will be limited to as needed daytime maintenance trips. Therefore, the Project will 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. Therefore, there would be no impact.

4.2 AGRICULTURE AND FORESTRY RESOURCES

Table 4-2: Agriculture and Forest Impacts

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?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

4.2.1 Baseline Conditions

Fresno County is located in California's agricultural heartland. According to the California County Agricultural Commissioner's Report, Fresno is the largest county in the San Joaquin Valley. In 2020, Fresno County agricultural production totaled $7.9 billion dollars. Almonds continued to be the county's number one commodity at $1.2 billion. Grapes remained the number two crop at $1 Billion, followed by pistachios at $7 million. A wide range of commodities are cultivated in the county, including almonds, grapes, pistachios, poultry, milk, garlic, tomatoes, oranges, and peaches. Rich soil, irrigation water, Mediterranean climate, and steady access to local, national, and global markets make this possible.

The District is comprised of approximately 15,143 acres. The Project area is currently vacant disked land and an existing canal. Most of the land surrounding the Project site is zoned for agricultural use, with the majority designated as prime farmland.

Farmland Mapping and Monitoring Program (FMMP): The FMMP produces maps and statistical data used for analyzing impacts to California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. The maps are updated every two years with the use of a computer mapping system, aerial imagery, public review, and

field reconnaissance. The California Department of Conservation's (DOC) 2012 FMMP is a non-regulatory program that produces "Important Farmland" maps and statistical data used for analyzing impacts on California's agricultural resources. The Important Farmland maps identify eight land use categories, five of which are agriculture related: prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, and grazing land — rated according to soil quality and irrigation status. Each is summarized below:

- 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.
- 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.
- 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.
- 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.
- GRAZING LAND (G): Land on which the existing vegetation is suited to the grazing of livestock. The minimum mapping unit for Grazing Land is 40 acres.
- URBAN AND BUILT-UP LAND (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, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- OTHER LAND (X): Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.
- WATER (W): Perennial water bodies with an extent of at least 40 acres.

As demonstrated in Figure 4-1, the FMMP for Fresno County designates the project site as Farmland of State Importance.

4.2.2 Impact Analysis

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?

No Impact. The Project basin sites are designated as Farmland of Local Importance and currently vacant. The Project would construct two groundwater recharge basins facilities constructed in one phase. The recharged water will be used in the District efforts to achieve groundwater sustainability. Since the

project site would continue to serve an agricultural purpose, implementation of the Project would not result in the conversion of farmland to nonagricultural use. Therefore, there would be no impact.

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

No Impact. Chapter 2, Section 816 of the Fresno County Zoning Ordinance addresses the AE zone districts. However, pursuant to Government Code Section 53091(e), location or construction of facilities for the production, generation, storage, treatment, or transmission of water by a special district are not subject to the zoning ordinance of the county in which the project would be located. Although the Project is not required to comply with the Fresno County Zoning Ordinance, it is the Project's intent to enhance groundwater levels, thereby sustaining agriculture. The basin will facilitate greater security of groundwater storage for District growers, inherently promoting the agricultural zoning and Williamson Act intentions. The Project parcels are not under a Williamson Act contract. The principal objectives of the Williamson Act program include protection of agricultural resources, preservation of open space land, and promotion of efficient urban growth patterns. The implementation of a recharge basins would promote groundwater security inherently protecting agricultural resources. Therefore, there would be no impact.

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))?

No Impact. There are no forests or timberland lands in the Project area or vicinity. The Project does not propose any rezoning, it would not convert forest land to non-forest use. There would be no impact.

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

No Impact. The Project would not result in the loss of forest land or conversion of forest land to non-forest use. 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?

Less than Significant Impact. The Project would convert the land from its existing agricultural use to a use that is considered Urban and Built-Up Land pursuant to the FMMP; however, the sole purpose of said conversion is to support ongoing agricultural endeavors by enhancing groundwater availability. As a result, the Project will likely result in continued farming on agricultural lands that might otherwise be fallowed due to lack of water. Impacts would be less than significant.

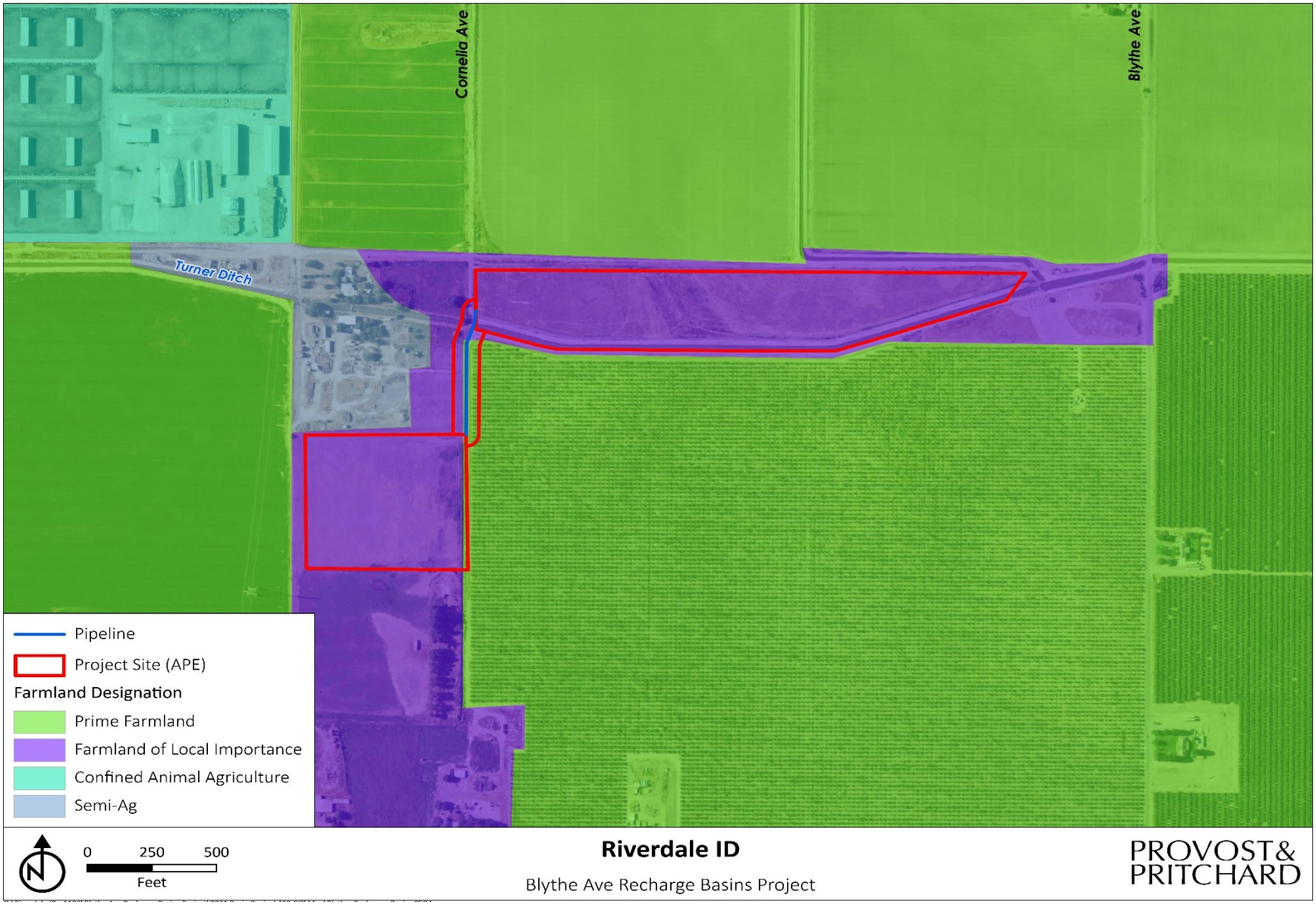

Figure 4-1: Farmland Designation Map

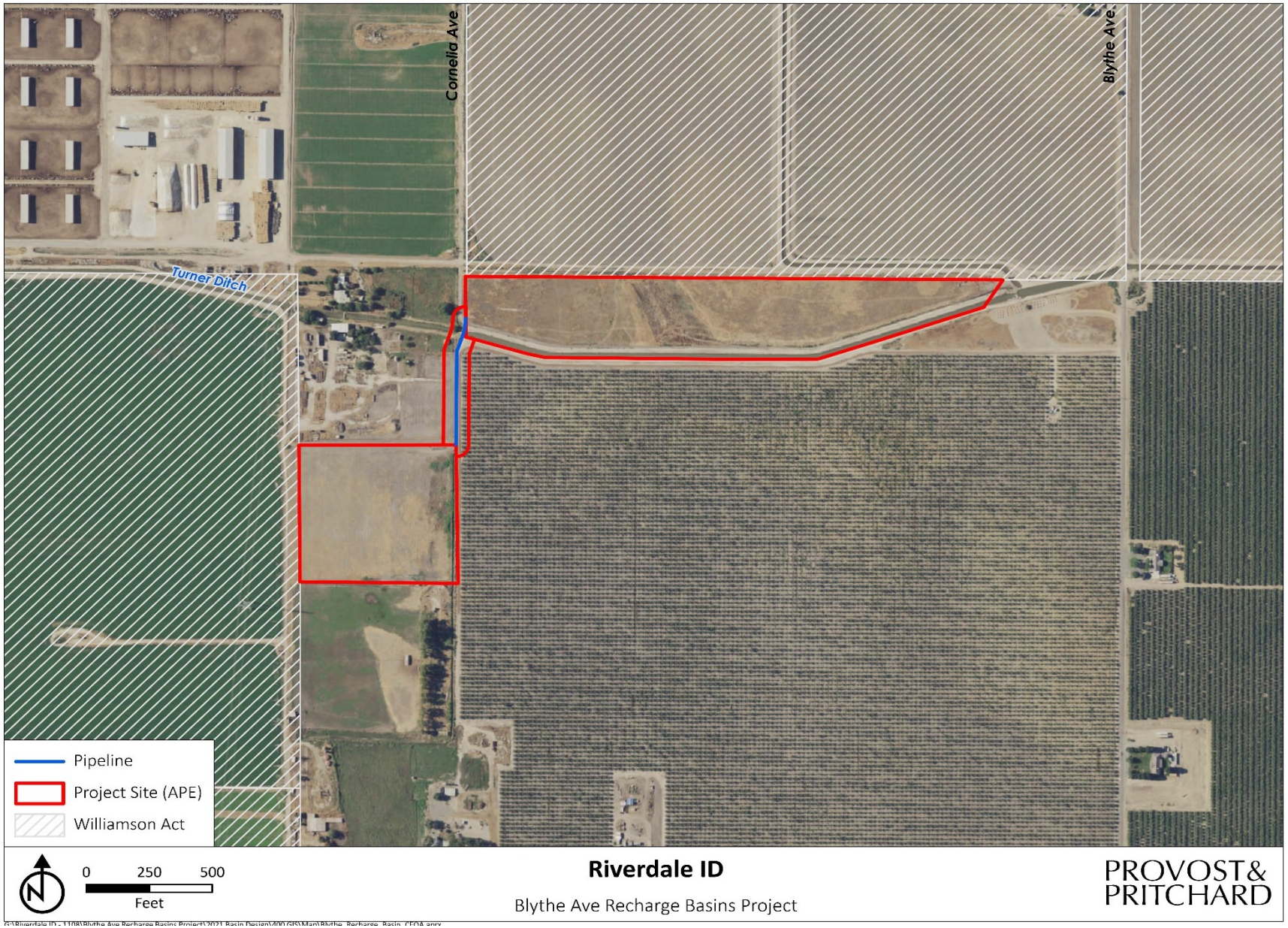

Figure 4-2: Williamson Act Map

4.3 AIR QUALITY

Table 4-3: Air Quality Impacts

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?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

4.3.1 Baseline Conditions

Under the California Clean Air Act (CCAA), the California Air Resources Board (CARB) is required to designate areas of the State as attainment, nonattainment, or unclassified with respect to applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An "unclassified" designation signifies that the data does not support either an attainment or nonattainment designation. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The Environmental Protection Agency (EPA) designates areas for ozone, CO, and NO_2 as "does not meet the primary standards," "cannot be classified," or "better than national standards." For SO_2, areas are designated as "does not meet the primary standards," "does not meet the secondary standards," "cannot be classified," or "better than national standards." However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used. The EPA uses the same sub-categories for nonattainment status: serious, severe, and extreme. In 1991, EPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or III for PM_{10} based on the likelihood that they would violate national PM_{10} standards. All other areas are designated "unclassified."

The State and national attainment status designations pertaining to the San Joaquin Valley Air Basin (SJVAB) are summarized in Appendix A. The SJVAB is currently designated as a nonattainment area with respect to the State PM_{10} standard, ozone, and $PM_{2.5}$ standards. The SJVAB is designated nonattainment for the National Ambient Air Quality Standards (NAAQS) 8-hour ozone and $PM_{2.5}$ standards. On September 25, 2008, the EPA re-designated the San Joaquin Valley to attainment status for the PM_{10} NAAQS and approved the PM_{10} Maintenance Plan.

Table 4-4: Summary of Ambient Air Quality Standards and 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_2S)	1-hour	0.03 ppm (42 µg/m^3)	Unclassified		
Vinyl Chloride (C_2H_3Cl)	24-hour	0.01 ppm (26 µg/m^3)	Attainment		
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: (California Air Resources Board 2021)*
*** No Federal 1-hour standard. Reclassified extreme nonattainment for the Federal 8-hour standard [date].*
****Secondary Standard*
Source: CARB 2015; SJVAPCD 2015

4.3.2 Thresholds of Significance

California Emissions Estimator Modeling (software) (CalEEMod) was ran (Appendix A) using Version 2016.3.2 for the proposed Project in February 2021. The sections below detail the methodology of the air quality and greenhouse gas emissions analysis and its conclusions.

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 a 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 (PM_{10}): Construction impacts associated with the 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 Project would be considered significant if the project generates emissions of Reactive Organic Gases (ROG) or NOX that exceeds 10 TPY.

Long-Term Emissions of Particulate Matter (PM_{10}): 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 PM_{10}, if the project-generated emissions of either of the ozone precursor pollutants (i.e., ROG and NO_x) or PM_{10} 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 proposed 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).

Toxic Air Contaminants: 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.

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

4.3.3 Impact Analysis

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

b) Would the project 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?

a-b) Less than Significant Impact. Construction is anticipated to occur over a 3-month period, with work being done 5 days per week with 8-hour days. Construction equipment will typically consist of the following equipment:

- (3) Scrapers
- (2) Sheepsfoot compactors/rollers
- (1) Excavator
- (1) Dozer
- (1) Large Tractor and Discing Unit
- (2) Graders
- (2) Water Trucks

Construction crew will typically consist of:

- (1) Superintendent
- (1) Foreman
- Up to (5) operators
- At least (5) laborers

Short-term construction emissions associated with the Project were calculated using CalEEMod, Version 2020.4.0. These output files can be found in Appendix A. The emissions modeling includes emissions generated by off-road equipment, haul trucks, and worker commute trips. Emissions were quantified based on anticipated construction schedules and construction equipment requirements 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.

Table 4-5: Annual Emission (tons per year)

	Annual Emission (tons per year)					
Source	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction	0.2167	2.3354	1.5932	0.0034	0.2530	0.1597
Rule 9510	0	-0.4664	0	0	-0.0430	0
Total	0.2167	1.8690	1.5932	0.0034	0.2100	0.1597
Threshold	10	10	100	27	15	15
Exceed Threshold?	No	No	No	No	No	No

Emissions depicted above indicate that the Project will not exceed Air District thresholds. In addition, the Project will be required to be comply with all applicable Air District rules and regulations, including but not limited to:

- Regulation VIII (PM_{10} Prohibitions)
- Rule 9510 (Indirect Source Review)

Compliance with these Air District thresholds, rules, and regulations will ensure impacts are less than significant.

c) 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 the long-term operation of any major onsite stationary sources of TACs. However, construction of the Project may result in temporary increases in emissions of diesel particulate matter (DPM) associated with the use of off-road diesel equipment. Health-related risks associated with diesel-exhaust emissions are primarily associated with long-term exposure and associated risk of contracting cancer. As such, cancer risks associated with exposure of to TACs are typically calculated based on a long-term (e.g., 70-year) period of exposure. However, the use of diesel-powered construction equipment would be temporary and episodic.

Construction activities would occur over approximately three months, which would constitute approximately 0.3 percent of the typical 70-year exposure period. For this reason and given the relatively high dispersive properties of DPM, 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). text

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

Less than Significant Impact. Land uses that commonly emit odorous compounds include dairies, agricultural uses, wastewater treatment plants, chemical plants, food processing facilities, composting, refineries, and fiberglass molding facilities. The Project includes the construction of drainage basins and installation of pipelines to recharge groundwater, which would not result in the emission of odorous compounds. Impacts would be less than significant.

4.4 BIOLOGICAL RESOURCES

Table 4-6: Biological Resources Impacts

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?	☐	☒	☐	☐
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?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
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?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

4.4.1 Baseline Conditions

4.4.1.1 General

The Project is located north of West Mt. Whitney Avenue and west of South Blythe Avenue in the southern portion of Fresno County, California, east of the census-designated town of Riverdale. The Project's APE includes two basins totaling approximately 23 acres, connecting pipelines between basins and Turner Ditch with an additional 50-foot buffer surrounding the APE. The APE and surrounding lands are agricultural fields and contain Turner Ditch Canal. The APE lies in Fresno County within the San Joaquin Valley, part of the Central Valley of California (see Figure 2-1). The Central 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. The topography is relatively flat with elevations ranging from approximately 205 to 213 feet above sea level.

Like most of California, this part of the valley experiences a Mediterranean climate. Warm, dry summers are followed by cool, moist winters. Summer temperatures range between 80- and 90-degrees Fahrenheit (°F), but often exceeds 90 °F in the upper reaches of the counties. Winter minimum temperatures are near 38 °F. The average annual precipitation is approximately 11 inches, falling mainly from October to April[2].

4.4.1.2 Water

A watershed is the topographic region that drains into a stream, river, or lake and can consist of many smaller subwatersheds. The nearest surface waters are the Turner Ditch Canal that runs along the southern portion of the APE. The Murphy Slough-Fresno Slough watershed is comprised of stormwater or snowmelt collected in upland areas flowing down into Middle Fork Kings River and connecting to the Kings River. The Kings River then flows into Pine Flat Reservoir and out continuing downstream as the Kings River to Cole slough, Murphey slough, and ending flows into the Turner Ditch canal. The APE lies within the Murphy Slough-Fresno Slough watershed; Hydrologic Unit Code (HUC): 1803000901 and a single subwatershed: Turner Ditch-Fresno Slough subwatershed; HUC: 180300090103[3].

4.4.1.3 Soil

Two soil mapping units representing four soil types were identified within the APE: Chino sandy loam, Chino loam, Chino loam saline-alkali, and Foster sandy loam. Chino sandy loam is found within 21.2% of the APE and is somewhat poorly drained, has moderately slow permeability, and has a low runoff class. Chino loam is found within 71.4% of the APE and is somewhat poorly drained, has moderately slow permeability, and has a low runoff class. Chino loam saline-alkali is found within 0.5% of the APE and is somewhat poorly drained, has moderately slow permeability, and has a low runoff class. Foster sandy loam is found within 7.0% of the APE and is poorly drained, has moderate permeability, and has a low runoff class. Three of the soils are commonly used for grazing and the drained areas are used for growing irrigated truck and row crops such as lettuce. The other soil is used for grain, pasture, alfalfa and field and truck crops. All of the major soil mapping units and some of the minor soil mapping units were identified as hydric. The major and minor soils which are hydric make up 88.73% of the soil in the APE. 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[4].

4.4.1.4 Wildlife and Plant Species

A qualified biologist conducted a desktop analysis and reconnaissance-level field survey related to 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 (CNDDB); the United States 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

[2] Weatherspark. (2022). Average Weather in Riverdale California United States Year Round. Retrieved January 2022, from https://weatherspark.com/y/1500/Average-Weather-in-Riverdale-California-United-States-Year-Round
[3] United States Environmental Protection Agency (USEPA). (2022). Retrieved from Waters GeoViewer: https://www.epa.gov/waterdata/waters-geoviewer (Accessed January 2022).
[4] United States Department of Agriculture, Natural Resources Conservation Service. (2022). Custom Soil Resources Report, California. Retrieved from http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (Accessed January 2022).

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.

A thorough search of the CNDDB for published accounts of special status plant and animal species was conducted for the *Burrel* 7.5-minute quadrangle that contain the APE in its entirety, and for the eight surrounding quadrangles: *Helm*, *Raisin*, *Caruthers*, *Riverdale*, *Lemoore*, *Vanguard*, *Calflax*, and *Five Points*. These species, and their potential to occur within the proposed Project area are listed in Table 4-7 and Table 4-8.

Table 4-7: List of Special Status Animals with Potential to Occur Onsite and/or in the Vicinity.

Species	Status	Habitat	Occurrence within APE
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.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. An American Badger could potentially pass through the APE, but it is unlikely they would forage or live within the APE. The only recorded observation of this species was 14 years ago and 15 miles northwest of the APE.
Blunt-nosed leopard lizard (*Gambelia sila*)	FE, CE, CFP	Inhabits semi-arid grasslands, alkali flats, low foothills, canyon floors, large washes, and arroyos, usually on sandy, gravelly, or loamy substrate, sometimes on hardpan. Often found where there are abundant rodent burrows in dense vegetation or tall grass. Cannot survive on lands under cultivation. Known to bask on kangaroo rat mounds and often seeks shelter at the base of shrubs, in small mammal burrows, or in rock piles. Adults may excavate shallow burrows but rely on deeper pre-existing rodent burrows for hibernation and reproduction.	**Absent.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. There are no recorded observation of this species within the 9 quad search on CNDDB.
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 APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. Nesting and foraging habitat is absent due to incompatible vegetative cover. At most, a Burrowing Owl individual could potentially pass over or through the site but would not be expected to nest or forage within or adjacent to the APE. The presence of raptors in the vicinity makes this site generally unsuitable for Burrowing Owls. The closest recorded observation of this species was 16 years ago and 5.5 miles east of the APE, the

Species	Status	Habitat	Occurrence within APE
			most recent recorded observation of this species was 6 years ago and 14.5 miles northwest of the APE.
California glossy snake (*Arizona elegans occidentalis*)	CSC	Inhabits arid scrub, rocky washes, grasslands, and chaparral. Prefers open areas with loose soil for easy burrowing.	**Unlikely.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The only recorded observation of this species was 83 years ago and 7 miles northeast of the APE.
California red-legged frog (*Rana draytonii*)	FT, CSC	Inhabits perennial rivers, creeks, and stock ponds with vegetative cover within the Coast Range and northern Sierra foothills.	**Absent.** The APE does not provide suitable habitat for this species and is outside of its current known range. There are no recorded observation of this species within the 9 quad search on CNDDB.
Crotch bumble bee (*Bombus crotchii*)	CCE	Occurs throughout coastal California, as well as east to the Sierra-Cascade crest, and south into Mexico. Food plant genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia*, and *Eriogonum*.	**Unlikely.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. A crotch bumblebee could potentially pass through the area, but nesting and foraging habitat is absent due to land use. The only recorded observation of this species was 58 years ago and 11 miles west of the APE.
Delta smelt (Hypomesus transpacificus)	FT, CE	This pelagic and euryhaline species is Endemic to the Sacramento-San Joaquin River Delta, upstream through Contra Costa, Sacramento, San Joaquin, and Solano Counties.	**Absent.** Suitable perennial aquatic habitat for this species is absent from the APE and surrounding lands. There are no connections between streams that host Delta smelt and the canal that runs past the APE. There are no recorded observations of this species within the 9-quad search on CNDDB.
Fresno Kangaroo Rat (*Dipodomys nitratoides exilis*)	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.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The only recorded observation of this species was 30 years ago and 5.5 miles south of the APE.
Giant gartersnake (*Thamnophis gigas*)	FT, CT	Occurs in marshes, sloughs, drainage canals, irrigation ditches, rice fields, and adjacent uplands. Prefers locations with emergent vegetation for cover and open areas for basking. This species uses small mammal burrows adjacent to aquatic habitats for hibernation in the winter and to escape from excessive heat in the summer.	**Unlikely.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The most recent recorded observation of this species was 30 years ago and 1.5 miles west of the APE and is presumed to be possibly extirpated.

Species	Status	Habitat	Occurrence within APE
Monarch Butterfly (*Danaus plexippus*)	FC	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Larval host plants consist of milkweeds (*Asclepias* sp.). Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico.	**Absent.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. There are no recorded observations of this species within the 9-quad search on CNDDB.
San Joaquin kit fox (*Vulpes macrotis mutica*)	FE, CT	Underground dens with multiple entrances in alkali sink, valley grassland, and woodland in valleys and adjacent foothills.	**Unlikely.** No San Joaquin kit fox dens or other signs were observed during the biological survey. The APE and surrounding areas are frequently cultivated agricultural lands. The most recently recorded observation of this species was 20 years ago and 8.5 miles southeast of the APE. The closest recorded observation of this species was 29 years ago and 5 miles northeast of the APE.
Swainson's Hawk (*Buteo swainsoni*)	CT	Nests in large trees in open areas adjacent to grasslands, grain or alfalfa fields, or livestock pastures suitable for supporting rodent populations.	**Possible.** While the APE does not contain large trees, the areas surrounding the APE contains suitable trees and areas for nesting and foraging. The most recent recorded observation of this species was 6 years ago and 2 miles southwest of the APE.
Tipton kangaroo rat Dipodomys nitratoides nitratoides	FE, CE	Burrows in soil. Often found in grassland and shrubland.	**Unlikely.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The most recent recorded observation of this species was 14 years ago and 13 miles southeast of the APE.
Tricolored blackbird (*Agelaius tricolor*)	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.** Riparian habitat for foraging and nesting is absent from the APE and surrounding areas. The most recent observation of this species was 8 years ago, 12 miles south of the APE. The closest recorded observation of this species was 22 years ago, 0.5 miles north of the APE.
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	FT	Lives in mature elderberry shrubs of the Central Valley and foothills. Adults are active March to June.	**Absent.** No Elderberry shrubs were seen within the APE or surrounding areas during the biological survey. The most recent recorded observation of this species was 31 years ago and 7.5 miles southeast of the APE.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	Occupies vernal pools, clear to tea-colored water, in grass or mud-bottomed swales, and basalt depression pools.	**Absent.** Vernal pool habitat is absent from the APE and surrounding areas. This species only lives in ephemeral habitats and needs long periods of dry soils for rest-quiescent which makes the APE unsuitable for this species (USFWS, 2007). There are no recorded

Species	Status	Habitat	Occurrence within APE
			observations of this species within the 9-quad search on CNDDB.
Vernal pool tadpole shrimp (*Lepidurus packardi*)	FE	Occurs in vernal pools, clear to tea-colored water, in grass or mud-bottomed swales, and basalt depression pools.	**Absent.** Vernal pool habitat is absent from the APE and surrounding areas. This species only lives in ephemeral habitats and needs long periods of dry soils for rest-quiescent which makes the APE unsuitable for this species (USFWS, n.d.). There are no recorded observations of this species within the 9-quad search on CNDDB.
Western spadefoot (*Spea hammondii*)	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.** Vernal pool and upland habitat are absent from the APE. The nearest recorded observation of this species was 24 years ago and 4.5 miles southwest of the APE.

Table 4-8: List of Special Status Plants with Potential to Occur Onsite and/or in the Vicinity.

Species	*Status*	*Habitat*	*Occurrence within APE*
Alkali-sink goldfields (*Lasthenia chrysantha)*	CNPS 1B	This species is found in vernal pool and wet saline flat habitats. Occurrences are documented in the San Joaquin and Sacramento Valleys at elevations below 656 feet. Bloom period is from February - April.	**Absent.** Vernal pool habitat and required soils are absent from the APE. The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The most recent recorded observation of this species was 47 years ago and 14 miles northwest of the APE and is presumed to be possibly extirpated.
Brittlescale (*Atriplex depressa*)	CNPS 1B	This species is found in the San Joaquin Valley and Sacramento Valley in alkaline or clay soils, typically in meadows or annual grassland at elevations below 1050 feet. It is sometimes associated with vernal pools. Bloom period is from June–October.	**Absent.** Required soils are absent and the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The most recent recorded observation of this species was 85 years ago and 14.5 miles northwest of the APE.
California alkali grass (*Puccinellia simplex*)	CNPS 1B	This species is found in the San Joaquin Valley and other parts of California in saline flats and mineral springs within valley grassland and wetland-riparian communities at elevations below 3000 feet. Bloom period is from March–May.	**Absent.** Required soils are absent and the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The nearest recorded observation of this species was 87 years ago and 4 miles east of the APE.

Species	*Status*	*Habitat*	*Occurrence within APE*
Lesser saltscale (*Atriplex minuscula*)	CNPS 1B	This species is found in the San Joaquin Valley in sandy, alkaline soils in alkali scrub, valley and foothill grassland, and alkali sink communities at elevations below 750 feet. Bloom period is from April–October.	**Absent.** Required soils are absent and the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The most recent recorded observation of this species was 85 years ago and 10.5 miles north of the APE.
Munz's tidy-tips (*Layia munzii*)	CNPS 1B	Found in the San Joaquin Valley in alkaline clay soils; often along hillsides in alkali scrub and sometimes valley and foothill grassland. Occurs at elevations between 145 feet and 2625 feet Blooms March–April.	**Absent.** Required soils are absent and the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The only recorded observation of this species was 85 years ago and 7 miles west of the APE.
Panoche pepper-grass (*Lepidium jaredii* ssp. *album*)	CNPS 1B	Found on steep slopes, washes, alluvial-fans, and clay, sometimes alkaline, within Valley and Foothill Grassland communities in western Fresno County at elevations between 600–2400 feet. Blooms February–June.	**Absent.** Suitable habitat required by this species is absent from the APE and surrounding lands. The APE is also outside of the elevational range of this species. The only recorded observation of this species was 129 years ago and 0.5 miles east of the APE and is presumed to be possibly extirpated.
Recurved larkspur (*Delphinium recurvatum*)	CNPS 1B	Occurs in poorly drained, fine, alkaline soils in grassland and alkali scrub communities at elevations between 100 feet and 2600 feet. Blooms March–June.	**Absent.** Required soils are absent and the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The closest recorded observation of this species was 85 years ago and 7 miles west of the APE and is presumed to be extirpated.
Subtle orache (*Atriplex subtilis*)	CNPS 1B	This species is found in the San Joaquin Valley in saline depressions in alkaline soils within valley and foothill grassland communities at elevations below 330 feet. Bloom period is from June–October.	**Absent.** Required soils are absent and the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The only recorded observation of this species was 36 years ago, 14 miles northwest of the APE and is presumed to be possibly extirpated.

EXPLANATION OF OCCURRENCE DESIGNATIONS AND STATUS CODES

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
FC	Federal Candidate	CFP	California Fully Protected
		CSC	California Species of Concern
		CCE	California Endangered (Candidate)

CNPS LISTING

1B	Plants Rare, Threatened, or Endangered in California and elsewhere.

4.4.2 Applicable Regulations

4.4.2.1 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 United States Code (USC), Section 1532(19), 50 Code of Federal Regulation, Section 17.3). CDFW and USFWS are responsible agencies under CEQA and the NEPA. Both agencies review CEQA and NEPA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.[5]

4.4.2.2 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.[6]

4.4.2.3 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 covers nearly all bird's native to the United States, even those that are non-migratory. The MBTA encompasses whole birds, parts of birds, 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).[7]

4.4.2.4 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.[8]

[5] California Department of Fish and Wildlife. (2022, January). *California Natural Diversity Database*. (Accessed January 2022).
[6] United States Fish and Wildlife Service. (2022). *Environmental Conservation Online System (ECOS)*. Retrieved from https://ecos.fws.gov/ecp/ (Accessed January 2022).
[7] *ECOS*. Retrieved from https://ecos.fws.gov/ecp/ (Accessed January 2022
[8] *ECOS*. Retrieved from https://ecos.fws.gov/ecp/ (Accessed January 2022).

4.4.2.5 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.[9]

4.4.2.6 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 the bulleted items above.

As of October 2021, the regulations have reverted back to 2015 compliance standards. As determined by the United States Supreme Court in its 2001 Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers (SWANCC v USACE) 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 United States Environmental Protection Agency (USEPA) 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 United States 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 United States 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 (SWRCB) 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

[9] United States Fish and Wildlife Service. (2022). *Environmental Conservation Online System (ECOS)*. Retrieved from https://ecos.fws.gov/ecp/ (Accessed January 2022).

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 United States 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 United States., require Waste Discharge Requirements (WDRs), or waivers of WDRs, from the RWQCB. The RWQCB also administers the Construction Storm Water Program and the federal 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. Projects that discharge wastewater, storm water, or other pollutants into a Water of the United States 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 a 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 those certain measures will be implemented to protect the habitat values of the lake or drainage in question.[10]

4.4.3 Fresno County General Plan

The Fresno County General Plan Policy Document[11] contain the following goals and policies related to the Project:

Agriculture

Policy LU-A.1 The County shall maintain agriculturally designated areas for agriculture use and shall direct urban growth away from valuable agricultural lands to cities, unincorporated communities, and other areas planned for such development where public facilities and infrastructure are available.

Water Quality

Policy OS-A.23 The County shall protect groundwater resources from contamination and overdraft by pursuing the following efforts: a. Identifying and controlling sources of potential contamination; b. Protecting important groundwater recharge areas; c. Encouraging water conservation efforts and supporting the use of surface water for urban and agricultural uses wherever feasible; d. Encouraging the use of treated wastewater for groundwater recharge and other purposes (e.g., irrigation, landscaping, commercial, and nondomestic uses); e. Supporting consumptive use where it can be demonstrated that this use does not exceed safe yield and is appropriately balanced with surface water supply to the same area; f. Considering areas where recharge potential is determined to be high for designation as open space; and g. Developing conjunctive use of surface and groundwater.

[10] United States Environmental Protection Agency (USEPA). (2022). Retrieved from Waters GeoViewer: https://www.epa.gov/waterdata/waters-geoviewer (Accessed January 2022).

[11] Fresno County General Plan. (2000, October). Fresno County. Retrieved from Fresno County General Plan Policy Document: https://www.co.fresno.ca.us/departments/public-works-planning/divisions-of-public-works-and-planning/development-services-division/planning-and-land-use/general-plan-maps (Accessed January 2022)

Water Supply

Policy LU-E.11 The County shall require subdividers of rural residential lots to install, provide, or participate in an effective means for utilization of available surface water entitlements for the area included in the subdivision, such as: a. Facilities to deliver surface water to each parcel; b. To develop a single recharge basin for the entire development (with necessary arrangements for its operation and maintenance); or c. To participate in the activities of a public agency to recharge the available supplies for the beneficial use of the properties within the development and the FCMA. The division shall not render inoperative any existing canal.

Policy PF-C.18 In the case of lands entitled to surface water, the County shall approve only land use-related projects that provide for or participate in effective utilization of the surface water entitlement such as: a. Constructing facilities for the treatment and delivery of surface water to lands in question; b. Developing facilities for groundwater recharge of the surface water entitlement; c. Participating in the activities of a public agency charged with the responsibility for recharge of available water supplies for the beneficial use of the subject lands.

Policy PF-E.14 The County shall encourage the use of retention-recharge basins for the conservation of water and the recharging of the groundwater supply.

Policy PF-E.17 The County shall encourage the local agencies responsible for flood control or storm drainage retention-recharge basins located in soil strata strongly conducive to groundwater recharge to develop and operate those basins in such a way as to facilitate year-round groundwater recharge.

Land Use

Policy OS-A.19 The County shall require the protection of floodplain lands and, where appropriate, acquire public easements for purposes of flood protection, public safety, wildlife preservation, groundwater recharge, access, and recreation.

Natural Resources

Policy OS-E.1 The County shall support efforts to avoid the "net" loss of important wildlife habitat where practicable. In cases where habitat loss cannot be avoided, the County shall impose adequate mitigation for the loss of wildlife habitat that is critical to supporting special-status species and/or other valuable or unique wildlife resources. Mitigation shall be at sufficient ratios to replace the function, and value of the habitat that was removed or degraded. Mitigation may be achieved through any combination of creation, restoration, conservation easements, and/or mitigation banking. Conservation easements should include provisions for maintenance and management in perpetuity. The County shall recommend coordination with the US Fish and Wildlife Service and the California Department of Fish and Game to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed. Important habitat and habitat components include nesting, breeding, and foraging areas, important spawning grounds, migratory routes, migratory stopover areas, oak woodlands, vernal pools, wildlife movement corridors, and other unique wildlife habitats (e.g., alkali scrub) critical to protecting and sustaining wildlife populations.

4.4.4 Impact Analysis

a) Would the project 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 Impact with Mitigation Incorporated. Of the 18 regionally occurring special status animal species, 17 are considered absent from or unlikely to occur within the APE due to past or ongoing disturbance and/or the absence of suitable habitat (see Table 4-7). The following 17 species were deemed absent from occurring within the APE: American badger, blunt-nosed leopard lizard, Burrowing owl, California glossy snake, California red-legged frog, Crotch bumble bee, delta smelt, Fresno kangaroo rat, giant gartersnake, monarch butterfly, San Joaquin kit fox, Tipton kangaroo rat, Tricolored Blackbird, Valley elderberry longhorn beetle, vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot. Since it is unlikely that these species would occur onsite, implementation of the Project should have no impact on these 17 special status species through construction mortality, disturbance, or loss of habitat. Mitigation measures are not warranted.

There is one species identified in Table 4-7 that could possibly exist within or near the APE. This species is the Swainson's Hawk (*Buteo swainsoni*). This species and corresponding mitigation measures are provided specific to Swainson's Hawk and any tree and ground nesting bird that may nest, roost, or forage within the APE. Mitigation measures are warranted and are identified in Section 4.4.5 below. With implementation of mitigation measures BIO-1, BIO-2, BIO-3, and BIO-4 impacts would be reduced to less than significant.

4.4.4.1 Nesting Birds

There is the possibility for the special status species Swainson's Hawk and other nesting birds to be impacted by the Project. The areas surrounding the APE contains suitable nesting and/or foraging habitat for ground and tree nesting avian species. Trees near the APE have the potential to host a multitude of nesting birds, and species such as Killdeer (*Charadrius vociferus*) are known to build nests on bare ground or compacted dirt roads. Furthermore, the trees are large enough to act as suitable nesting habitat for Swainson's Hawk and other raptors. Swainson's hawks have been recorded in the area surrounding the APE. Raptors could also potentially use the ruderal area and surrounding agricultural areas for foraging. Construction activities could disturb birds nesting within or adjacent to work areas, resulting in nest abandonment. Construction activities that adversely affect the nesting success of raptors and migratory birds or result in the mortality of individual birds constitute a violation of State and federal laws and are considered a significant impact under CEQA. Mitigation measures are warranted and are identified in Section 4.4.5 below. With implementation of mitigation measures BIO-1, BIO-2, BIO-3, and BIO-4 impacts would be reduced to less than significant.

Project-Related Impacts to Special Status Plant Species

Of the eight regionally occurring special status plant species, all eight are considered absent from occurring within the APE due to past or ongoing disturbance and/or the absence of suitable habitat. As explained in Table 4-8, the following species were deemed absent from the APE: alkali-sink goldfields, brittlescale, California alkali grass, lesser saltscale, Munz's tidy-tips, Panoche peppergrass, recurved larkspur, and subtle orache. Since it is unlikely that these species would occur onsite, implementation of the Project should have no impact on these eight special status species through construction mortality, disturbance, or loss of habitat. Mitigation measures are not warranted.

b) Would the project 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?

No Impact. There are no CNDDB-designated natural communities of special concern recorded within the APE or surrounding lands.[12] The APE contains agricultural fields and Turner Ditch canal. Surrounding lands are also agricultural fields. There would be no impact.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. Potential Waters of the United States, riparian habitat, typical wetlands, vernal pools, lakes, or streams, and other sensitive natural communities were not observed onsite at the time of the biological survey. Implementation of the Project would have no impact on jurisdictional waters, wetlands, navigable waters, wild and scenic rivers, riparian habitat or other water features. Therefore, the Project would not require jurisdictional permits from regulatory compliance agencies. There would be no impact.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant Impact. 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.

Most of the APE does not contain features that would be likely to function as wildlife movement corridors. Turner Ditch Canal could be potentially used as a wildlife movement corridor as tracks were seen in the canal at the time of the biological survey, but Project disturbance would be temporary and minimal allowing wildlife to continue to use the canal during from evening through to the morning and once construction has concluded. Further, the APE is located in an area where it is possible to be used by species more tolerant of consistent human activities such as some birds and gophers but is not ideal due to the heavy disturbance of human activities, which would discourage dispersal and migration. Impacts would be less than significant.

d) e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The Project would not interfere with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. There is no tree or vegetation removal associated with this Project. Therefore, the Project would not interfere with the Fresno County General Plan.[13] There would be no impact.

[12] California Department of Fish and Wildlife. (2022, January). *California Natural Diversity Database*. (Accessed January 2022).

[13] Fresno County General Plan. (2000, October). Fresno County. Retrieved from Fresno County General Plan Policy Document: https://www.co.fresno.ca.us/departments/public-works-planning/divisions-of-public-works-and-planning/development-services-division/planning-and-land-use/general-plan-maps (Accessed January 2022).

e) f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. There are no known habitat conservation plans or a Natural Community Conservation Plan in the Project vicinity.[14] There would be no impact.

4.4.5 Mitigation

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

BIO-2 **(Pre-construction Surveys):** If activities must occur within nesting bird season (February 1 to September 15), a qualified biologist would conduct pre-construction surveys for Swainson's hawk nests onsite and within a 0.5-mile radius. This survey would be conducted in accordance with the *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley, 2000*[15] or current guidance. The pre-construction survey would also provide a presence/absence survey for all other nesting birds within the APE and an additional 50 feet, no more than 7 days prior to the start of construction. All raptor nests would be considered "active" upon the nest-building stage.

BIO-3 **(Establish Buffers):** On discovery of any active nests near work areas, the biologist would determine appropriate construction setback distances based on applicable CDFW and/or USFWS guidelines and/or the biology of the species in question. Construction buffers would be identified with flagging, fencing, or other easily visible means, and would be maintained until the biologist has determined that the nestlings have fledged, dens are inactive, and/or based on a direction from a qualified biologist on next steps.

BIO-4 **(Formal Consultation):** If after the pre-construction survey Swainson's Hawk activity or nests are observed and cannot be avoided, consultation with CDFW will occur to discuss how to avoid "take" or, if avoidance is not feasible, to acquire an Incidental Take Permit prior to any ground disturbing activities, pursuant to Fish and Game Code section 2081, subdivision (b).

[14] Fresno County General Plan. (2000, October). Fresno County. Retrieved from Fresno County General Plan Policy Document: https://www.co.fresno.ca.us/departments/public-works-planning/divisions-of-public-works-and-planning/development-services-division/planning-and-land-use/general-plan-maps (Accessed January 2022

[15] Swainson's Hawk Technical Advisory Committee. (2000, May). Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. CA: CDFW. (Accessed January 2022).

4.5 CULTURAL RESOURCES

Table 4-9: Cultural Resources Impacts

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 in § 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

4.5.1 Baseline Conditions

Records Search

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 was conducted in December 2021. The SSJVIC records search includes a review of all recorded archaeological and built-environment resources as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest, the California Historical Landmarks, the California Register of Historical Resources, the National Register of Historic Places, and the California State Built Environment Resources Directory listings were reviewed for the above referenced APE and an additional ¼-mile radius. Due to the sensitive nature of cultural resources, archaeological site locations are not released. (Appendix C).

Additional sources included the State Office of Historic Preservation Historic Properties Directory, Archaeological Determinations of Eligibility, and the California Inventory of Historic Resources.

Native American Outreach

The Native American Heritage Commission (NAHC) in Sacramento was also contacted in December 2021. They were provided with 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 APE. The NAHC identifies, catalogs, and protects Native American cultural resources -- ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California. The NAHC is also charged with ensuring California Native American tribes' accessibility to ancient Native American cultural resources on public lands, overseeing the treatment and disposition of inadvertently discovered Native American human remains and burial items, and administering the California Native American Graves Protection and Repatriation Act, among many other powers and duties. NAHC typically provides a current list of Native American Tribal contacts to notify of the project. An initial request for a Sacred Lands search and tribal list was initiated in December as stated above and after several attempts to obtain that information from NAHC, an official tribal list was not provided. Nine tribal representatives who were believed to have potential knowledge of the area were contacted in writing via United States Postal Service

in a letter mailed February 1, 2022, informing each Tribe of the Project and to request any information they might have about the area. On March 30, 2022, a response from the NAHC was received. The additional six tribal contacts were contacted on March 31, 2022.

1. Kings River Choinumni Farm Tribe, Stan Alec, Tribal Contact
2. Kitanemuk & Yowlumne Tejon Indians, Delia Dominguez, Chairperson
3. Santa Rosa Rancheria Tachi Yokut Tribe, Leo Sisco, Chairperson
4. Table Mountain Rancheria, Leanne Walker-Grant, Chairperson
5. Table Mountain Rancheria Bob Pennell, Cultural Resources Director
6. Tule River Indian Tribe, Joey Garfield, Tribal Archaeologist
7. Tule River Indian Tribe, Kerri Vera, Environmental Department
8. Tule River Indian Tribe, Neil Peyron, Chairperson
9. Wuksache Indian Tribe/Eshom Valley Band, Kenneth Woodrow, Chairperson

Additional tribes:

10. Big Sandy Rancheria of Western Mono Indians, Elizabeth Kipp
11. Cold Springs Rancheria of Mono Indians, Carol Bill
12. Cold Springs Rancheria of Mono Indians, Jared Aldern
13. Dumna Wo-Wah Tribal Government. Robert Ledger
14. Traditional Choinumni Tribe, David Alverez
15. Table Mountain Rancheria, Brenda Lavell

On February 14, 2022 an email was received from the Santa Rosa Rancheria Tachi-Yokut Tribe requesting to have an archaeological survey completed, to have a tribal monitor on site for all ground disturbance related to the project, and to have a curation agreement put in place. Mitigation measures for potential archaeological resources and human remains have been incorporated into the document.

4.5.2 Impact Analysis

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?

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

Less than Significant Impact with Mitigation Incorporated. A CHRIS records search, from SSJVIC, was conducted in December 2021 and confirmed there have been no previous cultural resource studies conducted within the Project area. There has been one previous cultural resource study within the one-half mile radius: FR-02416, however this report is greater than five years and should be considered out of date. The search also confirmed there are three recorded resources within the project area: P-10-006640, 7055, and 7056. There is one recorded resource within the one-half mile radius: P-10-003930. These resources consist primarily of an historic era railroad, transmission line, and ditches and will not be affected by Project activities. It is unlikely that the Project has the potential to result in significant impacts or adverse effects to cultural or historical resources, such as archaeological remains, artifacts or historic properties. However, in the unusual event that cultural resources are encountered during Project construction, implementation of mitigation measure CUL-1 outlined below, would reduce impacts to less than significant.

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant Impact with Mitigation Incorporated. The Project site is currently vacant with surrounding agricultural fields and farmhouses nearby. There is no evidence or record that the Project has the potential to be an unknown burial site or the site of buried human remains. In the unlikely event of such a discovery, mitigation shall be implemented. With incorporation of mitigation measure CUL-2 outlined below, impacts resulting from the discovery of remains interred on the Project site would be less than significant.

4.5.3 Mitigation

CUL-1 (Archaeological Remains): Should archaeological remains or artifacts be unearthed during any stage of project activities, work in the area of discovery shall cease until the area is evaluated by a qualified archaeologist. If mitigation is warranted, the project proponent shall abide by recommendations of the archaeologist.

CUL-2 (Human Remains): In the event that any human remains are discovered on the Project site, the Fresno County Coroner must be notified of the discovery (California Health and Safety Code, Section 7050.5) and all activities in the immediate area of the find or in any nearby area reasonably suspected to overlie adjacent human remains must cease until appropriate and lawful measures have been implemented. If the Coroner determines that the remains are not recent, but rather of Native American origin, the Coroner shall notify the NAHC in Sacramento within 24 hours to permit the NAHC to determine the Most Likely Descendent of the deceased Native American.

4.6 ENERGY

Table 4-10: Energy Impacts

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

4.6.1 Baseline Conditions

The Project consists of approximately 24 acres of vacant farmland and an existing canal. The Project site is not currently irrigated. Gasoline and diesel are currently used for on-site periodic disking of the land.

4.6.2 Impact Analysis

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?

Less than Significant Impact. Construction of the Project would be required to comply with California Code of Regulations Title 13, Motor Vehicles, Section 2449(d)(2)-Idling, which limits idling times of construction vehicles to no more than five minutes, thereby preventing unnecessary and wasteful consumption of fuel because of unproductive idling of construction equipment. Project operations would use a minimal amount of energy as the basins would be gravity fed. Due to the site no longer being farmed, energy usage would be less than existing conditions. Impacts would be less than significant.

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

Less than Significant Impact. The existing site is currently not irrigated, and the 24-acres of farmland at the Project site are vacant. Energy consumed would be minimal due to the fact that Project operations will largely be passive in nature. Thus the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

4.7 GEOLOGY AND SOILS

Table 4-11: Geology and Soils Impacts

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.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☐	☒

4.7.1 Baseline Conditions

The Project site is located in Fresno County, north of the City of Lemoore. The Project site is in a relatively flat Agricultural area of the Central San Joaquin Valley. Using the United States Department of Agriculture Natural Resource Conservation Service Soil Survey a report of the onsite soils was generated and is provided as Appendix D of Appendix B: Biological Evaluation, at the end of this document. All soils are moderately well drained.

Table 4-12: Soils of the Project Area

Parcel 05344018S			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Cl	Chino sandy loam loam, 0-2 percent slopes	6	38.5%
Cr	Chino loam, 0-2 percent slopes	9.5	61.5%
Total Area of Interest		**15.5**	**100.0%**
Parcel 05320009S			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Cr	Chino loam, 0-2 percent slopes	7.8	75.2%
Cs	Chino loam, saline-alkali, 0-2 percent slopes	0.3	2.70%
Fm	Foster sandy loam, 0-2 percent slopes	2.3	22.1%
Total Area of Interest		**10.4**	**100.0%**
Pipeline Connection			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Cr	Chino loam, 0-2 percent slopes	2.4	100.0%
Total Area of Interest		**2.4**	**100.0%**

Geology and Soils

The Proposed Project is located in Southeastern 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. The sedimentary formations are steeply upturned along the western margin due to the uplifted Sierra Nevada Range[16].

Faults and Seismicity

The Proposed 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 mapped principal fault is the San Andreas Fault, located approximately 47.5 miles southwest of the Proposed Project site. 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. The smaller Nunez Fault zone is approximately 34.2 miles southwest of the site.[17]

[16] Harden, D.R. 1998, California Geology, Prentice Hall, 479 pages
[17] (California Geological Survey n.d.)

Liquefaction

The potential for liquefaction, which is the loss of soil strength due to seismic forces, is dependent on soil types and density, the groundwater table, and the duration and intensity of ground shaking. Although no specific liquefaction hazard areas have been identified in the county, this potential is recognized throughout the San Joaquin Valley where unconsolidated sediments and a high-water table coincide. It is reasonable to assume that due to the depth to groundwater within Fresno County, liquefaction hazards would be minimal. Soil conditions are key factors in selecting locations for direct groundwater recharge projects. Using the USDA NRCS soil survey of the Project site, an analysis of the soils was performed. Soils in the area consist of Chino sandy loam, Chino loam, Chino loam saline-alkali, and Foster sandy loam, all of which are 0–2% slopes and well drained.

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 that become saturated, high in silt or clay content. The Project site consists of Chino sandy loam, Chino loam, Chino loam saline-alkali, and Foster sandy loam. These soil types have a low to moderate risk of subsidence.

Dam and Levee Failure

According to the Federal Emergency Management Agency (FEMA) the closest 100 year flood zone is approximately two miles southwest of the project site.[18]

4.7.2 Impact Analysis

a) Would the project 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.

Less than Significant Impact. The nearest major fault is the San Andreas fault zone, Parkfield section, located approximately 47.5 miles southwest of the Project site. A smaller fault zone, the Nunez fault, is approximately 34.2 miles southwest of the site. The Project does not include habitable residential, agricultural, commercial, or industrial structures. Operation of the Project would require infrequent, routine maintenance by Riverdale ID Employees. Any impact would be less than significant.

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 Project does not include any activities or components which could feasibly cause strong seismic ground shaking, either directly or indirectly. Therefore, there would be no impact.

[18] (Federal Emergency Management Agency 2021)

iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact. Liquefaction occurs when loose, water-saturated sediments lose strength and fail during strong ground shaking. In general, liquefiable areas are generally confined to the Valley floor covered by Quaternary-age alluvial deposits, Holocene soil deposits, current river channels, and active wash deposits and their historic floodplains, marshes, and dry lakes. Specific liquefaction hazard areas in the county have not been identified. The Project site is not in a wetland area and is located in the southwestern portion of the County where liquefaction risk is considered low to moderate. The impact would be less than significant.

iv. Landslides?

No Impact. As the Proposed Project is located on the Valley floor, no major geologic landforms exist on or near the site that could result in a landslide event. The potential landslide impact at this location is minimal as the site is more than five miles from the foothills and the local topography is essentially flat and level. There will be no impact.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. Earthmoving activities associated with the Project would include excavation, basin construction, trenching and placing of pipeline. 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 SWPPP by a certified Qualified SWPPP Developer. Through the completion of a SWPPP, any possible impacts from construction related activities involving soil erosion and loss of topsoil would be reduced. Therefore, impacts would be less than significant.

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

Less than Significant Impact. Most of the Project site and the surrounding area do not have any substantial grade changes to the point where the proposed basin would expose people or structures to potential substantial adverse effects on- or offsite such as landslides, lateral spreading, subsidence, liquefaction, or collapse. Subsidence and liquefaction risk are low to moderate at the site. Any impact would be less than significant.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less than Significant Impact. The soils at the Project sites are mostly comprised of Chino loam association. Permeability is moderate. The Project will not contain any facilities that could be affected by expansive soils nor would substantial grading change the topography such that the project would generate

substantial risks to life or property. The Project will be consistent with the California Building Standards Code; therefore, there would be no impact.

e) Would the project 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 will be no impact.

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

No Impact. Unique paleontological resources or unique geological features have not been identified in the Project area. There will be no impact.

4.8 GREENHOUSE GAS EMISSIONS

Table 4-13: Greenhouse Gas Emissions Impacts

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

4.8.1 Baseline Conditions

Commonly identified Green House Gas (GHG) emissions and sources include the following:

Carbon dioxide (CO_2) is an odorless, colorless natural greenhouse gas. CO_2 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 (CH_4) 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 (N_2O), 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 acid production, and vehicle emissions) also contribute to its atmospheric load.

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 (O_3) 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 (SF_6) 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.

There are uncertainties as to exactly what the climate changes will be in various local areas of the earth, and what the effects of clouds will be in determining the rate at which the mean temperature will increase. There are also uncertainties associated with the magnitude and timing of other consequences of a warmer planet: sea level rise, spread of certain diseases out of their usual geographic range, the effect on agricultural production, water supply, sustainability of ecosystems, increased strength and frequency of storms, extreme heat events, air pollution episodes, and the consequence of these effects on the economy.

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. About three-quarters of human emissions of CO_2 to the global atmosphere during the past 20 years are due to fossil fuel burning. Atmospheric concentrations of CO_2, CH_4, and N_2O have increased 31 percent, 151 percent, and 17 percent respectively since the year 1750 (CEC 2008). GHG emissions are typically expressed in carbon dioxide-equivalents (CO_2e), 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 CH_4 has the same contribution to the greenhouse effect as approximately 21 tons of CO_2. Therefore, CH_4 is a much more potent GHG than CO_2.

CalEEMod air quality modeling software was run in February 2022 and is contained in Appendix A. The essential conclusions of this Report are as follows:

4.8.2 Thresholds

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.

4.8.3 Impact Analysis

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

Less than Significant Impact. Construction of the Project would result in GHG emissions from operation of both on-road and off-road equipment. As discussed previously, Project operations would require routine maintenance conducted by existing staff and would not be a source of new emissions, and therefore are not addressed further. As shown in Table 4-14, the Project would be below the Bay Area Air Quality Management District (BAAQMD) thresholds for total Project emissions and well below the thresholds after amortizing the construction emissions. Therefore, the GHG emissions from the proposed Project would not have significant impacts on climate change.

Table 4-14: BAAQMD thresholds for total Project emissions

	Emissions (MT CO2e)
Construction	325.5327
Amortized over Life of Project (30 years)	10.8511
AB 32 Consistency Threshold for Land-Use Development Projects*	1,100
Exceed Threshold?	No

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

Less than Significant Impact. After Project construction, operational GHG emissions would consist of routine maintenance conducted by existing staff and would not generate any new emissions during operations. The Project would provide potable water to residences whose current water sources do not meet safety standards. GHG emissions from the Project construction activities would be temporary and would not have a long-term impact on the state's ability to achieve the Scoping Plan's emission reduction targets for 2030 or beyond. Based on this, the Project would be consistent with the 2017 Scoping Plan and would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions; therefore, impacts would be less than significant.

4.9 HAZARDS AND HAZARDOUS MATERIALS

Table 4-15: Hazards and Hazardous Materials Impacts

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?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

4.9.1 Baseline Conditions

The Project site is approximately 24 acres of vacant agricultural land, historically farmed. There are no known hazardous materials on the project area.

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 Section 65962.5 requires the California Environmental Protection Agency 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 SWRCB Geotracker database provides information on regulated hazardous waste facilities in California, including underground storage tank cases and non- underground storage tank cleanup programs, including Spills-Leaks-Investigations-Cleanups sites, Department of Defense sites, and Land Disposal program. A search of the DTSC EnviroStor database and the SWRCB Geotracker performed on December 16, 2021 determined that there are no known active hazardous waste generators or hazardous material spill sites within the Project site.

Airports

The Fresno Yosemite International Airport is located approximately 24.3 miles northeast of the project.

Emergency Response Plan

The Fresno County Office of Emergency Services coordinates planning, preparedness, response and recovery efforts for disasters occurring within the unincorporated area of the County. It also develops and maintains the Fresno County Master Emergency Services Plan.

Sensitive Receptors

There are several rural single-family homes located adjacent to the Project site. Riverdale Elementary School, a 4–8 elementary school, is located approximately 0.8 mile east of the project.

4.9.2 Impact Analysis

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. There would be no transport, use, or disposal of hazardous materials associated with Project construction or operations, with the exception of diesel fuel for construction or routine maintenance equipment. Any potential accidental hazardous materials spills during Project construction or basin maintenance are the responsibility of the contractor and/or District to remediate in accordance with industry best management practices and State and county regulations. Any impacts would therefore be less than significant.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact. There would be no transport, use, or disposal of hazardous materials associated with Project construction or operations, with the exception of diesel fuel for construction or routine maintenance equipment. Any potential accidental hazardous materials spills during Project construction or basin maintenance are the responsibility of the contractor and/or District to remediate in accordance with industry best management practices and State and county regulations. Any impacts would therefore be less than significant.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The Project site is not located within one-quarter mile of an existing or proposed school. Riverdale Elementary School is the nearest school and is located approximately 0.8 miles east of the project. Therefore the Project will not emit hazardous emissions or involve the transport or handling of any hazardous materials within one-quarter mile of a school. There would be no impact.

d) Would the project 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?

Less than Significant Impact. The Proposed Project does not involve land that is listed as an active hazardous materials site pursuant to Government Code Section 65962.5 and is not included on a list compiled by DTSC. Both the SWQCB's GeoTracker and DTSC's EnviroStor websites were queried on December 16, 2021 for contaminated groundwater or sites in the area. GeoTracker does list four cases that are closed within a 1-mile radius of the Project site.

The first site is listed as Brown Feed & Seed, Inc. (T0601900043) at the south corner of W Mt. Whitney Ave and Sherill St, 1.3 miles southeast of the Project. The second case is listed as completed and closed as of November 17, 1999. The second site is listed as Texaco Star Mart #8 (T0601900595) at the north corner of W Mt. Whitney Ave and Sherill St, 1.29 miles southeast of the Project. The third case is listed as completed and closed as of March 13, 2013. The third site is listed as Tank Cleanup @ Riverdale (T0601900085) at W Mt. Whitney 0.53 miles southwest of the Project. The fourth case is listed as completed and closed as of July 26, 2001. The fourth site is listed as Maggini Hay Co. (T0601900550) at W Mt. Whitney Ave 0.68 miles southwest of the Project. The case is listed as completed and closed as of January 22, 1999. Any impacts would be less than significant.

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

No Impact. The Fresno Yosemite International Airport is located approximately 24.3 miles northeast of the Project site. The Project site is not located within an airport land use plan or within two miles of an airport. There would be no impact.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The construction of recharge basins would not impair or physically interfere with any adopted emergency response or emergency evacuation plan. Construction of the pipeline would occur along the canal. Access would be from Blythe Avenue. Therefore, impacts would be less than significant.

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

No Impact. As discussed in further detail in the Wildfire section, the Project would not expose people or structures either directly or indirectly to a significant loss, injury or death involving wildland fires. The Project site is in an agriculturally developed area of Fresno County that is not considered wildland. In addition, the Project would not conflict with any local, State, or federal standard or regulation governing wildfire. Therefore, there would be no impact.

4.10 HYDROLOGY AND WATER QUALITY

Table 4-16: Hydrology and Water Quality Impacts

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?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

4.10.1 **Baseline Conditions**

The Project site is current vacant agricultural land, historically farmed. It is located in a rural area of Fresno County, inside the San Joaquin Valley – Kings Subbasin. The Kings Subbasin is in California's Tulare Lake hydrologic region, it is 981,324.82 acres in size. There are approximately 17 wells, of which approximately 698 are water supply wells in the Kings basin. Groundwater accounts for approximately 84 percent of the basin's water supply.[19] The Kings Subbasin is bounded on the north by the San Joaquin River. The northwest corner of the subbasin is formed by the intersection of the east line of the Farmers Water District with the San Joaquin River. The west boundary of the Kings Subbasin is the eastern boundaries of the Delta Mendota

[19] (San Joaquin Valley Groundwater Exchange n.d.)

and Westside Subbasins. The southern boundary runs easterly along the northern boundary of the Empire West Side Irrigation District, the southern fork of the Kings River, the southern boundary of Laguna Irrigation District, the northern boundary of the Kings County Water District, the southern boundaries of Consolidated and Alta Irrigation Districts, and the western boundary of Stone Corral Irrigation District. The eastern boundary of the subbasin is the alluvium-granitic rock interface of the Sierra Nevada foothills. The San Joaquin and Kings Rivers are the two principal rivers within or bordering the subbasin. The Fresno Slough and James Bypass are along the western edge of the subbasin and connect the Kings River with the San Joaquin River.[20]

4.10.2 **Impact Analysis**

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant Impact. SWRCB requires that a SWPPP be prepared for projects that disturb one (1) 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 SWPPP will minimize the potential for the Project to substantially alter the existing drainage pattern in a manner that will result in substantial erosion or siltation onsite or offsite. Additionally, there will be no discharge to any surface source. However, by design, there will be percolation discharge to groundwater via the proposed recharge basins. Use of chemicals or surfactants will not be generated through the maintenance or operation of the Project and as such, there will be no discharge directly associated with Project implementation that could impact water quality standards. The Project will not violate any water quality standards and will not impact waste discharge requirements, and the pipeline construction will not entail disturbance of one or more acres of soil. The impact will be less than significant.

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

Less than Significant Impact. The recharge basins that would be constructed on the Project site would recover groundwater in ways to best minimize the depletion of groundwater resources. The North Fork Kings Groundwater Sustainability Agency (NFKGSA) holds jurisdiction over the proposed Project area and is responsible for implementing a Groundwater Sustainability Plan (GSP), and any water brought to the Project site would be accounted for under the GSP. No additional groundwater would be required compared to baseline conditions; therefore, the impacts would be less than significant. Therefore, the Project would not impede sustainable groundwater management of the basin or decrease groundwater supplies. Impact would be less than significant.

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:

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

Less than Significant Impact. In order to minimize the possibility of substantial soil erosion or siltation, the Project would use construction BMP's and complete a SWPPP. SWPPP's include mandated soil

[20] (San Joaquin Valley Groundwater Basin n.d.)

erosion control measures, which are developed to prevent significant impacts related to erosion caused by runoff during construction. Therefore, impacts would be less than significant.

ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

Less than Significant Impact. The Project would not result in a substantial increase in the rate or amount of surface runoff that would result in flooding on- or off-site. The Project would utilize construction BMP's and complete a SWPPP in order to reduce any potential impacts to the surface runoff changes associated with this Project. Therefore, impacts would be less than significant.

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

Less than Significant Impact. The Project would result in two water recharge facilities and two connecting pipelines on approximately 24 acres. The Project would not result in the creation or contribution of runoff water that would exceed the capacity of an existing or planned stormwater drainage system. Stormwater would be collected on site in the recharge basin, or percolate through the ground on-site. In addition, The Project would be required to use construction BMP's and complete a SWPPP. As a result, the Project would not have an impact on flood flow. Therefore, there would be no impacts.

iv. impede or redirect flood flows?

No Impact. The Project site is located approximately two miles northeast of a 100 Year Flood Zone (Digital Flood Insurance Rate Map (DFIRM) MAP 06019C2875J). The Project would construct two water recharge facilities and would not impede or redirect flood flows. Therefore, there would be no impact.

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

No Impact. The Project area is not at risk of tsunami or within a seiche zone. As shown in Figure 4-3, the Project is not within a 100-year flood zone. Additionally, operation of the recharge facilities does not involve hazardous materials. 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. The Project would not conflict with implementation of a water quality control plan or sustainable groundwater management plan. The Project site is located in the San Joaquin Valley – Kings Subbasin. In addition, the Project site is located within the boundaries of the NFKGSA. The NFKGSA implements a GSP. The Project would recharge water during wet years and would not be in conflict with the NFKGSA or its GSP. Therefore, there would be no impact.

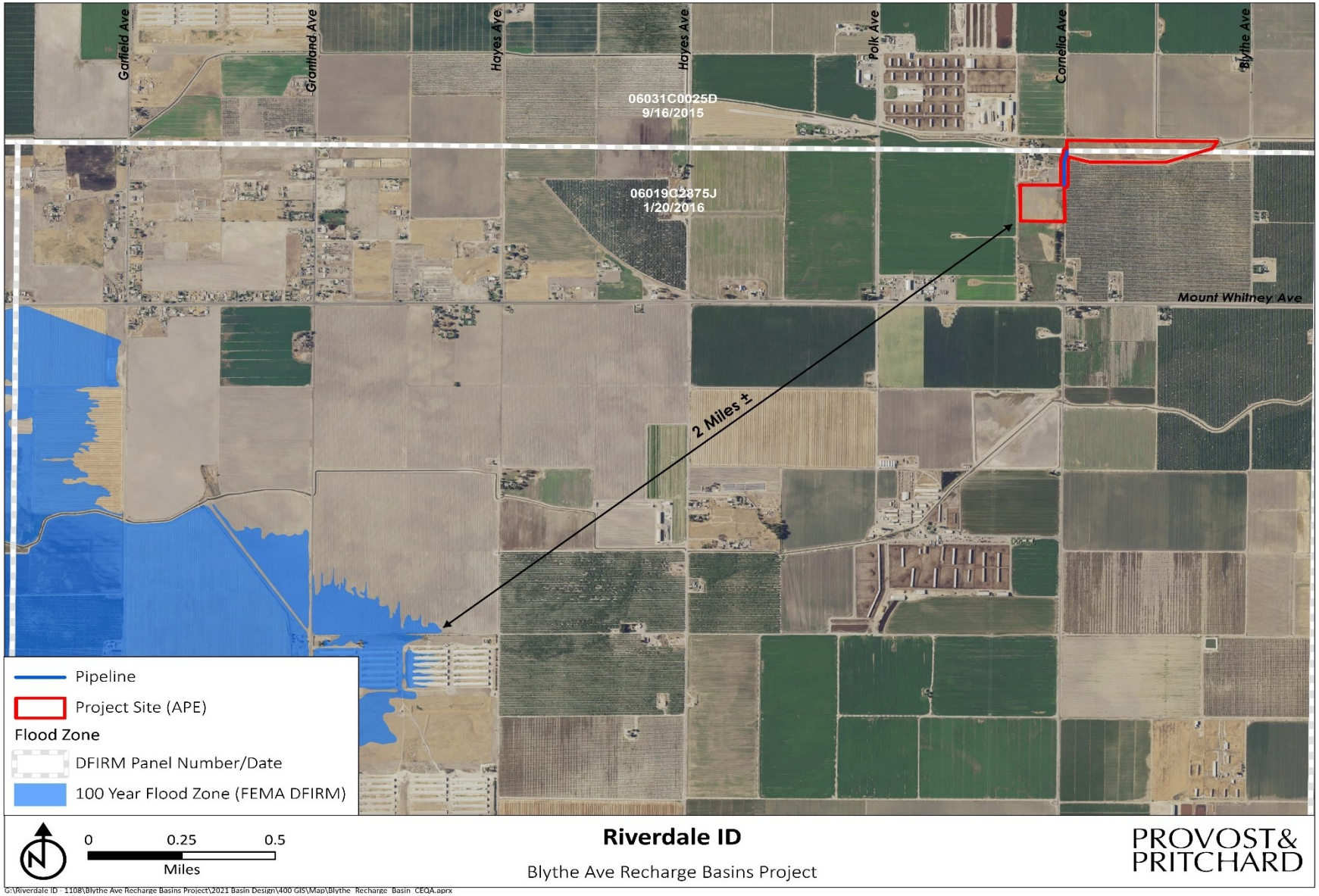

Figure 4-3: FEMA 100-Year Flood Zone Map

4.11 LAND USE AND PLANNING

Table 4-17: Land Use and Planning Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Physically divide an established community?	☐	☐	☐	☒
g) 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?	☐	☐	☒	☐

4.11.1 Baseline Conditions

The Project site is classified Farmland of Statewide Importance according to the DOC. The Project site is designated as Agriculture by the Fresno County General Plan and is within the AE-20 (Exclusive Agriculture) zone district. Properties adjacent to the Project site are currently actively agriculture designated as Prime Farmland as well as confined animals/dairy. The proposed Project is located approximately 4.70 miles east of SR 41. Topographically, the Proposed Project area is at an elevation of 218 feet above mean sea level. No forest or timber land is present at the Project site or in the Project vicinity.

General Plan Land Use and Zoning Designations

According to the Land Use Element of the Fresno County General Plan, a recharge basin facility is an allowable land use in areas designated as agriculture.

On-site Land Use Designations

The Proposed Project site is zoned Exclusive Agriculture by Fresno County, see Figure 4-5.

Surrounding Land Use Designations

The Fresno County General Plan designates the areas surrounding the Proposed Project site for agricultural uses.

General Plan Land Use Designations and Zone Districts are illustrated in Figure 4-4 and Figure 4-5, respectively.

4.11.2 Impact Analysis

a) Would the project physically divide an established community?

No Impact. The Project is located in an agricultural area in Riverdale. The Project is 3.69 miles north of the Fresno Slough, and 6.45 miles northwest of the Kings River. Surrounding uses are primarily agriculture uses. The Project would not physically 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 site is zoned Exclusive Agriculture. The Project would not involve the development of new agricultural lands, but would construct two recharge basins. There are various nearby residences surrounding the Project and construction of the Project would not develop new sources of water that would support any new housing or new permanent population growth that would exceed official regional or local population projections in the district service area. The main purpose of the Project is to enhance groundwater levels and achieve sustainability, through groundwater recharge and groundwater banking for; therefore, there would be no impacts to land use.

Additionally, a recharge facility is an allowed agricultural use and is consistent with the land use within the vicinity of the Project. Therefore, the Proposed Project would not conflict with any applicable plans, policies, or regulations.

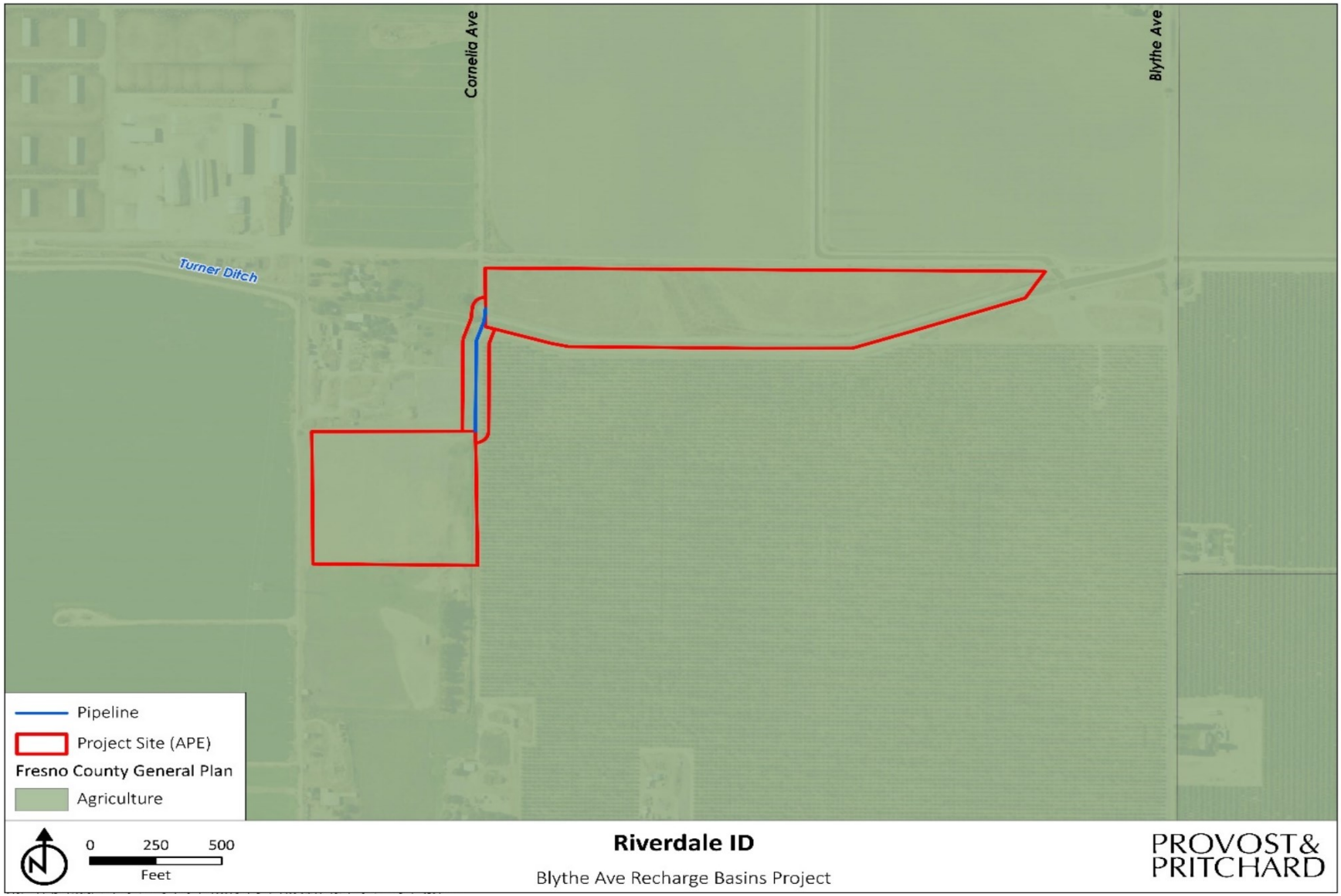

Figure 4-4: General Plan Land Use Designation Map

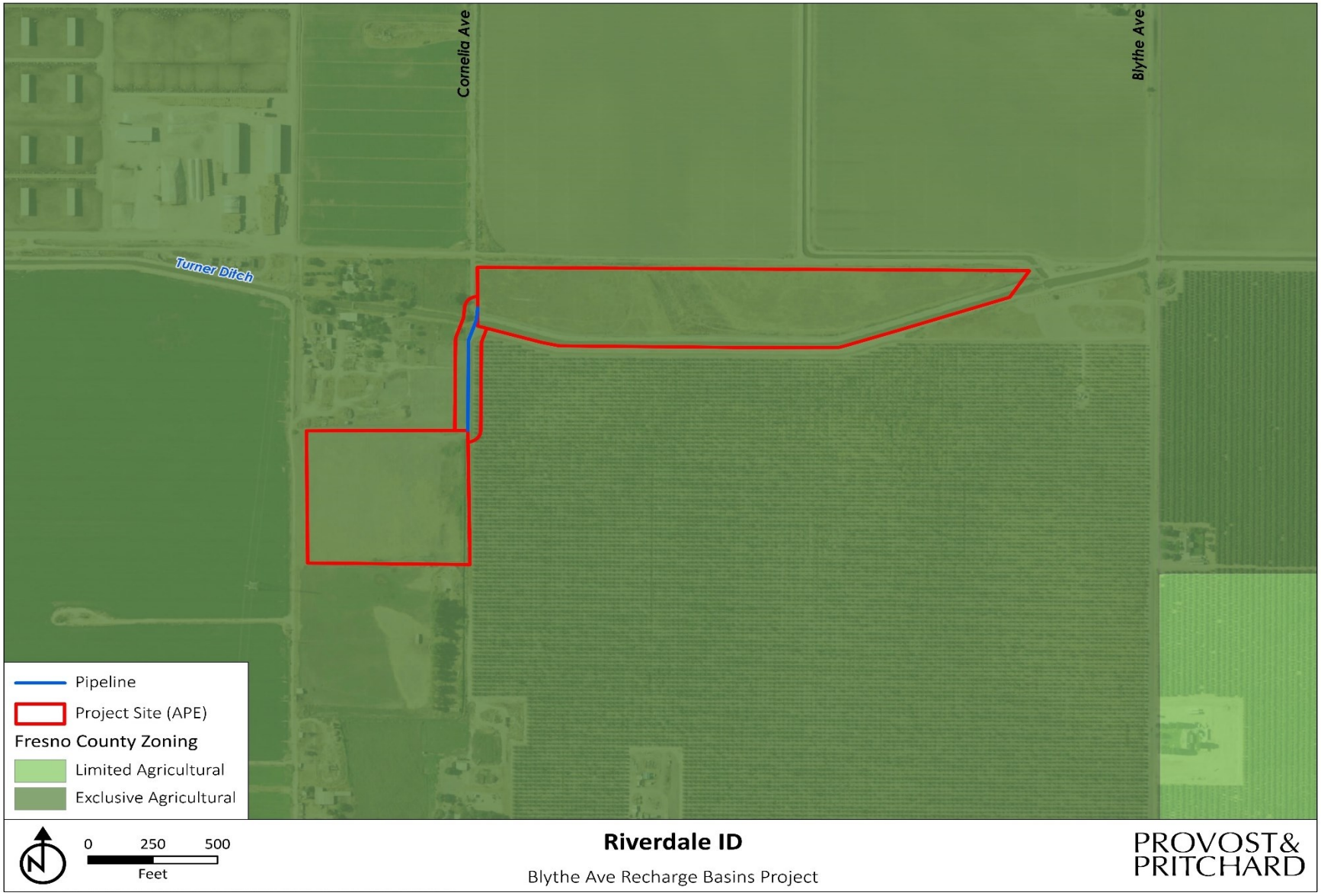

Figure 4-5: Zone District Map

4.12 MINERAL RESOURCES

Table 4-18: Mineral Resources Impacts

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?	☐	☐	☐	☒
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?	☐	☐	☒	☐

4.12.1 Baseline Conditions

Historically, Fresno County is known for being mineral rich with abundant aggregate resources and high value commodities such as granite and marble, oil, coal, and gold, silver, copper, mercury, and asbestos. Aggregate resources and chromium are the two primary mineral resources mined today. Fresno County has 623 records of mineral resource sites including extraction mines, processing facilities, and known mineral deposit occurrences. The San Joaquin River Resource Area is on the northern county line of Fresno and Madera counties, and is part of the alluvial materials from the San Joaquin River. It covers an estimated 4,271 acres; the California Geologic Survey identified aggregate resources in this area as being MRZ-1 and MRZ–2. This resource area extends from the Lost Lake Recreation Area to the Riverside Municipal Golf Course, approximately 15 miles. The San Joaquin River Resource Area averages about 0.5 miles along its width. This resource area generally follows the historical floodplain of the San Joaquin River. The Kings River Resource Area is an alluvial fan that underlies the county. This resource area covers an estimated 16,380 acres and is designated as MRZ-2. Figure 7-12 Mineral Resource Zones, in the 2040 General Plan illustrates the general distribution of mineral deposits throughout the County.[21]

The California Department of Conservation, Division of Mine Reclamation provides mine information to the public through the Mines Online (MOL) website. The website is an interactive web map designed to provide information such as mine name, operation status, commodities sold, and mine locations. According to the MOL geographic information system (GIS), there are various oil or gas wells within two miles of the Proposed Project site.[22]

The Project is not delineated on a local land use plan as a locally important mineral resources recovery site.

Mineral Resources Zones

The State Department of Conservation, Division of Mines and Geology classifies Mineral Resource Zones in order to map areas throughout the state that contain regionally significant mineral resources. Mineral Resource Zones (MRZ) are defined as follows:

[21] (Fresno County General Plan Policy Document 2000)
[22] (California Department of Conservation n.d.)

- MRZ-1 is classified as an area where adequate information indicates there are no significant mineral deposits present, or where there is little likelihood for mineral deposit presence.
- MRZ-2 is classified as an area with adequate information indicating significant mineral deposits are present and or a high likelihood for mineral deposit presence.
- MRZ-3 is classified as an area of undetermined mineral resource significance based on available data which may suggest or infer mineral occurrence.
- MRZ-4 is classified as an area of unknown mineral resource significance or no known mineral occurrence.

4.12.2 Impact Analysis

a) Would the project 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?

No Impact. There no known mineral resources identified that would be of value to the region and the residents of the state California within the Project site. Therefore, construction of the Project would not result in the loss of availability of a known mineral resource. Therefore there would be no impact.

b) Would the project 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?

Less than Significant Impact. The California Geological Survey Division of Mines and Geology has not classified the Proposed Project site as a Mineral Resource Zone under the Surface Mining and Reclamation Act. The California Division of Oil, Gas, and Geothermal Resources shows various wells within the project vicinity. The closest one to parcel 05344018S plugged and abandoned well is Well Courtney 4-23 (API 0401905617) which is 0.05 miles north of the project site. The closest wells to parcel 05320009S are: Well Cerini Community 85-22 – (API 0401905608), which is 0.06 miles north of the project site, and Well Zanolini 6-23 – (API 0401905663), which is also 0.06 miles away but is east of the project site. Both of these wells are plugged and abandoned.[23] Additionally, there are two Active wells. Well Don – Cerini (API 0401924115) which is 0.17 miles southwest of the site and Well Spolsdoff (API 0401922144) which is 0.34 miles directly south of the site. Therefore, construction of the Project would not result in the loss of availability of a known mineral resource since no known mineral resources have been identified in this area.

[23] (California Department of Conservation Well Finder 2020)

4.13 NOISE

Table 4-19: Noise Impacts

Would the project result in:	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?	☐	☐	☒	☐
b) Generation of excessive ground borne vibration or ground borne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

4.13.1 Baseline Conditions

The Project site is situated within a region dominated by agricultural uses, operations which may require diesel-powered equipment or other relatively loud machinery. Rural traffic is also a source of noise in the Project's vicinity. Maximum noise levels generated by farm-related tractors typically range from 77 to 85 dB at a distance of 50 feet from the tractor, depending on the horsepower of the tractor and the operating conditions. Due to the seasonal nature of the agricultural industry, there are often extended periods of time when little to no noise is generated at the Project site, followed by short-term periods of intensive mechanical equipment usage and corresponding noise generation. The Fresno County General Plan Background Report (2000) identifies the normally acceptable noise range for agricultural land uses between 50 to 75 dB. Chart 10-1 "Land Use Compatibility for Community Noise Environments" is included in the Fresno County General Plan.[24]

There are 10 residences within a 0.5 mile radius of the Project site. Additional sensitive receptors in the area are the Riverdale Elementary School, which is located 0.8 mile east of the Project.

Table 4-20: Typical Construction Equipment Noise Levels

Typical Construction Equipment Noise Levels	
Equipment	Typical Noise Levels (dBa Lmax) 50 feet from Source
Backhoe	80
Compactor	82

[24] (Fresno County General Plan Policy Document 2000)

Typical Construction Equipment Noise Levels	
Equipment	Typical Noise Levels (dBa Lmax) 50 feet from Source
Dozer	85
Grader	85
Truck	88
Air Compressor	81
Concrete Pump	82
Concrete Vibrator	76
Crane, Mobile	83
Generator	81
Impact Wrench	85
Jack Hammer	88
Paver	89
Pneumatic Tool	85
Pump	76
Roller	74
Saw	76

4.13.2 Impact Analysis

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. Project operation would not generate significant noise; however, Project construction will generate temporary noise, mostly from trucks. Other construction equipment could include scrapers, backhoes, and drilling rigs. Noise from construction activities would not exceed Fresno County Noise Element standards of 60 dBA. The Project is located within agricultural lands, accustomed to noise generated by farm equipment and industrial machinery. As construction noise would be temporary, lasting three months. Maintenance to the site would take place as needed. Impacts due to noise would be less than significant.

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

Less than Significant Impact. The Project will not generate ground borne vibration or noise greater than existing conditions as it takes place in an area of existing agricultural operations. Construction phase will last three months, requiring excavation and grading. Project operations would not involve ground borne vibration or noise. Impacts will be less than significant.

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

No Impact. The closest unnamed airstrip is located approximately 6.9 miles northeast of the Project, and the Fresno Yosemite International Airport is located approximately 24.3 miles northeast of the project. As the Project is not located within an airport land use plan or two miles of an airport, there would be no impact.

4.14 POPULATION AND HOUSING

Table 4-21: Population and Housing Impacts

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 Sample, 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?	☐	☐	☐	☒

4.14.1 Baseline Conditions

Riverdale is a census-designated place in Fresno County. According to the 2020 Census the population was 5,691, up from 4,803 at the 2000 census.[25] It is estimated that there is approximately 3.5 persons per household. The proposed Project site is currently 24 acres of unfarmed agricultural land. The Project is surrounded by farmland, there are nearby residences around the Project.

4.14.2 Impact Analysis

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

No Impact. The Project would not generate substantial unplanned population growth in an area, either directly or indirectly. The Project would construct groundwater recharge basins in one phase. The Project is located in Census-Designated Place of Fresno County and would not result in the displacement of residents, inability of new housing to be built in the area or result in the construction of new housing as a result of the recharge facilities. Therefore, there would be no impact.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project would not displace any of the existing people or homes in the area. Project activities would not alter housing or the existing community in a way that would result in the need for new housing to be constructed elsewhere. Therefore, there would be no impact.

[25] (United States Census Bureau n.d.)

4.15 PUBLIC SERVICES

Table 4-22: Public Services

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☒
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

4.15.1 Baseline Conditions

The Project is surrounded by agricultural land, and various nearby residences. Nearest services to the Project site are as described below:

Fire Protection: The proposed Project area would be served by the Fresno County Riverdale Volunteer Fire Department Station. It is located approximately 1.1 miles northwest of the Project site.

Police Protection: Police protection is provided by the Lemoore Police – Animal Control department. The closest station is located in Lemoore approximately 10.3 miles southwest of the Project site.

Schools: Riverdale Elementary School, a 4th-8th grade intermediate/middle school, is located 0.8 miles east of the Project site.

Parks: The Fresno County park closest to the Project site is Hickey Park, approximately 7.8 miles to the southeast.

Landfills: The nearest landfill to the Project site is the Kings Waste and Recycling Authority, located approximately 18 miles to the southeast.

4.15.2 Impact Analysis

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

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

No Impact. The Project will not require new or altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives for public services. The Project involves the construction and operation of two recharge basins so it will have no impact on the listed public services.

4.16 RECREATION

Table 4-23: Recreation Impacts

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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?	☐	☐	☐	☒

4.16.1 Baseline Conditions

There are no parks or recreational facilities near the Project site. Kings County Parks - Hickey Park is 7.8 miles southeast of the Project. The Park features a play area/play equipment, various picnic and BBQ tables, softball courts, volleyball courts, and horse shoe pits. Visitors can rent park facilities Friday to Sunday from 10 am to 7 pm.[26] The Open Space and Conservation Element of the Fresno County General Plan does not establish a standard for the number of parklands per resident in the census designated places.[27]

4.16.2 Impact Analysis

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?

No Impact. The Project would construct water recharge facilities and would not induce population growth. Therefore, it would not increase the use of existing parks or require the construction of any new recreational facilities. There would be no impact.

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 would construct water recharge facilities and would not include recreational facilities or require the construction or expansion of recreational facilities. It would not increase the use of existing parks or require the construction of any new recreational facilities. Therefore, there would be no impact.

[26] (Kings, County of n.d.).
[27] (Fresno County General Plan Policy Document 2000)

4.17 TRANSPORTATION

Table 4-24: Transportation Impacts

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?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)??	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

4.17.1 Baseline Conditions

The Project site is surrounded by agricultural operations and as well as confined animals/dairy with very little development. The closest highway is State Route 41 which is located 4.73 miles east of the Project. The nearest airstrip of any kind is an Unnamed airstrip located approximately 6.9 miles northeast of the project and the Fresno Yosemite International Airport is located approximately 24.3 miles northeast of the project.

4.17.2 Impact Analysis

a) Would the project conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less than Significant Impact. The Proposed Project consists of the construction and operation of two Recharge basins. During construction, Project-generated traffic would temporarily increase truck volumes in the area for the three month period of construction. Operational traffic will consist of as-needed maintenance trips. The Proposed Project will not increase the number of staff. There would not be a permanent adverse effect to existing roadways in the area. Therefore, the Project would not conflict with any plan, ordinance, or policy regarding circulation. Any impacts would be less than significant.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?

Less than Significant Impact. Temporary vehicle trips would be necessary for the construction of the Project phase; however, operation and maintenance activities are not anticipated to increase significantly as a result of implementing the Project. Temporary construction trips would not result in a substantial increase in vehicle miles travelled and therefore would be consistent with the CEQA Guidelines Section 15064.3(b). Impacts would be less than significant.

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

No Impact. The Project does not increase hazards due to any of its design features, nor does it create incompatible uses with the existing traffic operations. Construction activities would largely occur within and next to, proposed site with intermittent trucks entering and exiting the property. The site would be designed to allow for adequate maneuvering of such vehicles to enter and exit the site in a forward motion. Therefore, there would be no impact.

d) Would the project result in inadequate emergency access?

No Impact. Construction of the project and construction activities would not result in any changes to the current transportation system or traffic operation. Access to the Project site will be via State Route 99, to Mt. Whitney Avenue, to Blythe Avenue. Additionally, it would not affect emergency access in any fashion. Once construction activities are complete, no long-term sources of Project traffic would occur that would interfere with emergency access. There would be no impact.

4.18 TRIBAL CULTURAL RESOURCES

Table 4-25: Tribal Cultural Resources Impacts

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:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

4.18.1 Baseline Conditions

The Project lies within the homeland of the Southern Valley Yokuts. At the time of first contact with the Spanish missionaries, the Yokuts people, including the southern valley, northern valley, and foothill groups, collectively inhabited the San Joaquin Valley as well as the eastern foothills of the Sierra Nevada from the Fresno River southward to the Kern River. The Project lies in territory claimed by the Apichi. They were few in number and resided along Murphy Slough. The Apiche village of Wohue was on the north bank of Murphy Slough, south of the Project in the vicinity of Burrel. Other ethnographic villages not far from the Project area include the Wimilche village of Ugona, north of the Kings River and 7 miles down from Laton and Tachian villages of Udjiu and Golon (near Huron).[28] The Apiche, along with the other lake tribes, relied on the plentiful supply of lacustrine resources, including clams, fish, raccoon, otter, waterfowl, elk, antelope, jackrabbits, small seeds, grass nuts, and tule seed and roots. Wild seeds and acorns were harvested in the

[28] (Kroeber 1976 Plate 47)

early summer and fall, respectively, and stored for use throughout the year. Burning was used to enhance the productivity of vegetable foods. See Appendix C for full Cultural Resources Information details.

Public Resources Code Section 21080.3.1, et seq. (Codification of AB 52, 2013-14)

Public Resources Code Section 21080.3.1, et seq. (codification of AB 52, 2013-14) 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.

Records Search

A records search from the SSJVIC of the California Historical Resources Information System (CHRIS), located at California State University, Bakersfield was conducted in December 2021. The SSJVIC records search includes a review of all recorded archaeological and built-environment resources as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (SPHI), the California Historical Landmarks (SHL), the California Register of Historical Resources (CAL REG), the National Register of Historic Places (NRHP), and the California State Built Environment Resources Directory (BERD) listings were reviewed for the above referenced APE and an additional ½-mile radius. Due to the sensitive nature of cultural resources, archaeological site locations are not released. (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

The Native American Heritage Commission (NAHC) in Sacramento was contacted in December 2021 and they were provided with a brief description of the Project and a map showing its location and requested a search of the Sacred Lands File to determine if any Native American resources have been recorded in the immediate APE. The NAHC identifies, catalogs, and protects Native American cultural resources -- ancient places of special religious or social significance to Native Americans and known ancient graves and cemeteries of Native Americans on private and public lands in California. The NAHC is also charged with ensuring California Native American tribes' accessibility to ancient Native American cultural resources on public lands, overseeing the treatment and disposition of inadvertently discovered Native American human remains and burial items, and administering the California Native American Graves Protection and Repatriation Act (CalNAGPRA), among many other powers and duties. NAHC typically provides a current list of Native American Tribal contacts to notify of the project. An initial request for a Sacred Lands search and tribal list was initiated and after several attempts to obtain that information from NAHC, an official tribal list was not provided. Nine tribal representatives who were believed to have potential knowledge of the area were contacted in writing via United States Postal Service in a letter mailed February 1, 2022, informing each Tribe of the Project and to request any information they might have about the area. (see Section 4.5 for Cultural Resource Information). On March 30, 2022, a response from the NAHC was received. The additional six tribal contacts were contacted on March 31, 2022.

4.18.2 Impact Assessment

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

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

Less than Significant Impact with Mitigation Incorporated. Records requests from NAHC was conducted in December 2021 and results were received on March 30, 2022. The results came back negative for the presence of known Tribal Cultural Resources in the Project area. In addition, the District, as a public lead agency, has not received any formal requests for notification from any State tribes, pursuant to Public Resources Code Section 21080.3.1, et seq. With the implementation of mitigation measures CUL-1 and CUL-2 outlined above in Section 4.5, any impacts to Tribal Cultural Resources would be less than significant.

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public 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 Public Resources Code Section 21080.3.1, et seq. (codification of AB 52, 2013-14).

The District did receive an email dated February 14, 2022 in response to general tribal outreach efforts, acknowledging the Project and requesting to have an archaeological survey completed, to have a tribal monitor on site for all ground disturbance related to the Project, and to have a curation agreement put in place. The District has declined to include additional mitigation for these requests as the Mitigation Measures outlined in CUL-1 and CUL-2 will reduce the impacts to any unlikely discoveries to less than significant and would cover the Tribes requests.

4.18.3 Mitigation

TCR-1 See CUL-1 above.

TCR-2 See CUL-2 above.

4.19 UTILITIES AND SERVICE SYSTEMS

Table 4-26: Utilities and Service Systems Impacts

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?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

4.19.1 Baseline Conditions

4.19.1.1 Water Supply

The Project site is located within the North Fork Kings Subbasin, as defined by the California Department of Water Resources Groundwater Bulletin 118. Groundwater overdraft and declines in groundwater basin storage are recurring problems in Fresno County. Measures for ensuring the continued availability of groundwater 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.

4.19.1.2 Wastewater Collection and Treatment

The Riverdale Public Utility District is responsible for providing potable water to the community of Riverdale. Service is also provided via domestic wells and via the Riverdale Irrigation District for agricultural water consumption. However, no wastewater will be generated during Project construction or operation.

4.19.1.3 Landfills

The closest landfill to the Project site is the Kings Waste and Recycling Authority approximately 18 miles southeast of the site. No significant solid waste will be generated during Project construction or operation. Additionally, excavated material will be balanced on site.

4.19.2 Impact Analysis

a) Would the project 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?

No Impact. The Project will not require construction of new or relocation or expansion of existing facilities for water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications. There would be no impact.

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

No Impact. The Project consists of one phase of construction of two groundwater recharge basin facilities. The phase will involve 24 acres of recharge basins. The recharged water will be use in the District efforts to achieve groundwater sustainability. Project operation is passive and would not reduce the area's available water supply under any scenario. There would be no impact.

c) Would the project 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 require wastewater treatment, so analysis of capacity is not warranted. 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?

No Impact. The Project would not generate solid waste. Therefore, it would not 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. There would be no impact.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. The Project will comply with all federal, State, and local standards, policies, and goals. There would be no impact.

4.20 WILDFIRE

Table 4-27: Wildfire Impacts

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

4.20.1 Baseline Conditions

The Project is located in Fresno County in the Census-designated place of Riverdale. The Project site is in a relatively flat Agricultural area of the Central San Joaquin Valley. The site is currently vacant land.

No habitable structures are being constructed as part of the Project, and the Project is not considered to be population growth inducing. The Project is not located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones. The nearest State Responsibility Area is 28.98 miles west of the project.[29]

4.20.2 Impact Analysis

a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby

[29] (California Department of Forestry and Fire 2021)

expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

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

a-d) No Impact. The Project is not located in or near a State Responsibility Area or land classified as very high fire hazard severity. Therefore, further analysis of the Project's potential impacts regarding wildfire are not necessary. There would be no impacts.

4.21 CEQA MANDATORY FINDINGS OF SIGNIFICANCE

Table 4-28: CEQA Mandatory Findings of Significance

Does the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

4.21.1 Statement of Findings

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. The analysis conducted in this Initial Study/Mitigated Negative Declaration results in a determination that the Project, with incorporation of mitigation measures, will have a less than significant effect on the environment. The potential for impacts to biological resources, cultural resources and tribal cultural from the construction and operation of the Proposed Project will be less than significant with the incorporation of the mitigation measures discussed in Chapter 4 Mitigation Monitoring and Reporting Program. Accordingly, the Proposed Project will 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 24-acres of recharge basin over one phase. No additional roads would be constructed as a result of the Project, nor would any additional public services be required. The Project is not expected to 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 will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant Impact. The Project would include the construction of water recharge basins over one phase. The Project in and of itself would not create a significant hazard to the public or the environment. 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 5 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 Riverdale Irrigation District Blythe Avenue Recharge Basin Project in the unincorporated community of Riverdale. The MMRP lists mitigation measures recommended in the IS/MND for the Project and identifies monitoring and reporting requirements.

Table 5-1: Mitigation, Monitoring, and Reporting Program presents the mitigation measures identified for the 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 5-1: Mitigation, Monitoring, and Reporting Program 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 will be used by the Lead and Responsible Agencies to ensure that individual mitigation measures have been complied with and monitored

Table 5-1: Mitigation, Monitoring, and Reporting Program

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
Biological Resources						
BIO-1	**(Avoidance):** The Project's construction activities will occur, if feasible, between September 16 and January 31 (outside of nesting bird season) in an effort to avoid impacts to nesting birds.	Between September 16 and January 31 (outside of nesting bird season)	Daily during construction and ground disturbing activities	Riverdale ID		
BIO-2	**(Pre-construction Surveys):** If activities must occur within nesting bird season (February 1 to September 15), a qualified biologist would conduct pre-construction surveys for Swainson's hawk nests onsite and within a 0.5-mile radius. This survey would 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. The pre-construction survey would also provide a presence/absence survey for all other nesting birds within the APE and an additional 50 feet, no more than 7 days prior to the start of construction. All raptor nests would be considered "active" upon the nest-building stage.	Before construction and ground disturbing activities begin	One time survey prior to the start of construction activities	Riverdale ID		
BIO-3	**(Establish Buffers):** On discovery of any active nests or breeding colonies near work areas, the biologist will determine appropriate construction setback distances based on applicable CDFW and/or USFWS guidelines and/or the biology of the species in question. Construction buffers will be identified with flagging, fencing, or other easily visible means, and will be maintained until the biologist has determined that the nestlings have fledged and are no longer dependent on the nest.	On discovery of any active nests near work areas, prior to construction and ground disturbing activities	One time survey prior to construction	Riverdale ID		
Cultural Resources						
CUL-1	**(Archaeological Remains):** Should archaeological remains or artifacts be unearthed during any stage of project activities, work in the area of discovery	During construction or ground disturbing activities	Duration of construction and	Riverdale ID		

Mitigation, Monitoring, and Reporting Program						
Item	Mitigation Measure	When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance
	shall cease until the area is evaluated by a qualified archaeologist. If mitigation is warranted, the project proponent shall abide by recommendations of the archaeologist.		ground disturbing activities			
CUL-2	**(Human Remains):** In the event that any human remains are discovered on the Project site, the Fresno County Coroner must be notified of the discovery (California Health and Safety Code, Section 7050.5) and all activities in the immediate area of the find or in any nearby area reasonably suspected to overlie adjacent human remains must cease until appropriate and lawful measures have been implemented. If the Coroner determines that the remains are not recent, but rather of Native American origin, the Coroner shall notify the NAHC in Sacramento within 24 hours to permit the NAHC to determine the Most Likely Descendent of the deceased Native American.	During construction or ground disturbing activities	Duration of construction and ground disturbing activities	Riverdale ID		
Tribal Cultural Resources						
TCR-1	See above CUL-1					
TCR-2	See above CUL-2					

CHAPTER 6 REFERENCES

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Appendix A: CalEEMod Output Files

Riverdale ID Blythe Basin - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Riverdale ID Blythe Basin

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	25.00	Acre	25.00	1,089,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	45
Climate Zone	3			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Construction length to be approximately 3 months

Off-road Equipment - Construction equipment provided

Grading - Project site is to be balanced

Trips and VMT - Worker trips consist of 1 superintendent, 1 foreman, up to 5 operators and 5 laborers each

Consumer Products - No consumer products to be used

Area Coating - No parking lot

Landscape Equipment - No landscape equipment to be used

Construction Off-road Equipment Mitigation - Compliance with Dust Control Plan required

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Parking	65340	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	35.00	88.00
tblConstructionPhase	PhaseEndDate	7/19/2022	9/30/2022
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblGrading	AcresOfGrading	396.00	105.00
tblLandscapeEquipment	NumberSummerDays	180	0
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	25.00	24.00

2.0 Emissions Summary

Riverdale ID Blythe Basin - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
2022	0.2167	2.3354	1.5933	3.6700e-003	0.3338	0.0956	0.4294	0.1552	0.0880	0.2431	0.0000	322.9143	322.9143	0.1013	2.9000e-004	325.5327
Maximum	**0.2167**	**2.3354**	**1.5933**	**3.6700e-003**	**0.3338**	**0.0956**	**0.4294**	**0.1552**	**0.0880**	**0.2431**	**0.0000**	**322.9143**	**322.9143**	**0.1013**	**2.9000e-004**	**325.5327**

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					
2022	0.2167	2.3354	1.5932	3.6700e-003	0.1574	0.0956	0.2530	0.0717	0.0880	0.1597	0.0000	322.9139	322.9139	0.1013	2.9000e-004	325.5323
Maximum	**0.2167**	**2.3354**	**1.5932**	**3.6700e-003**	**0.1574**	**0.0956**	**0.2530**	**0.0717**	**0.0880**	**0.1597**	**0.0000**	**322.9139**	**322.9139**	**0.1013**	**2.9000e-004**	**325.5323**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**52.84**	**0.00**	**41.07**	**53.76**	**0.00**	**34.31**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Riverdale ID Blythe Basin - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	6-1-2022	8-31-2022	1.9061	1.9061
2	9-1-2022	9-30-2022	0.6216	0.6216
		Highest	1.9061	1.9061

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	0.0000	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
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	**0.0000**	**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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000	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
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	**0.0000**	**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**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	6/1/2022	9/30/2022	5	88	

Acres of Grading (Site Preparation Phase): 0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Acres of Grading (Grading Phase): 105

Acres of Paving: 25

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Rollers	2	8.00	80	0.38
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	2	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	3	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	10	24.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Grading - 2022

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					0.3207	0.0000	0.3207	0.1517	0.0000	0.1517	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2121	2.3320	1.5541	3.5500e-003		0.0956	0.0956		0.0879	0.0879	0.0000	312.2845	312.2845	0.1010	0.0000	314.8095
Total	**0.2121**	**2.3320**	**1.5541**	**3.5500e-003**	**0.3207**	**0.0956**	**0.4162**	**0.1517**	**0.0879**	**0.2396**	**0.0000**	**312.2845**	**312.2845**	**0.1010**	**0.0000**	**314.8095**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6300e-003	3.4300e-003	0.0392	1.2000e-004	0.0131	6.0000e-005	0.0132	3.4900e-003	6.0000e-005	3.5500e-003	0.0000	10.6298	10.6298	2.7000e-004	2.9000e-004	10.7232
Total	**4.6300e-003**	**3.4300e-003**	**0.0392**	**1.2000e-004**	**0.0131**	**6.0000e-005**	**0.0132**	**3.4900e-003**	**6.0000e-005**	**3.5500e-003**	**0.0000**	**10.6298**	**10.6298**	**2.7000e-004**	**2.9000e-004**	**10.7232**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Grading - 2022

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					0.1443	0.0000	0.1443	0.0683	0.0000	0.0683	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2121	2.3320	1.5541	3.5500e-003		0.0956	0.0956		0.0879	0.0879	0.0000	312.2842	312.2842	0.1010	0.0000	314.8091
Total	**0.2121**	**2.3320**	**1.5541**	**3.5500e-003**	**0.1443**	**0.0956**	**0.2398**	**0.0683**	**0.0879**	**0.1562**	**0.0000**	**312.2842**	**312.2842**	**0.1010**	**0.0000**	**314.8091**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6300e-003	3.4300e-003	0.0392	1.2000e-004	0.0131	6.0000e-005	0.0132	3.4900e-003	6.0000e-005	3.5500e-003	0.0000	10.6298	10.6298	2.7000e-004	2.9000e-004	10.7232
Total	**4.6300e-003**	**3.4300e-003**	**0.0392**	**1.2000e-004**	**0.0131**	**6.0000e-005**	**0.0132**	**3.4900e-003**	**6.0000e-005**	**3.5500e-003**	**0.0000**	**10.6298**	**10.6298**	**2.7000e-004**	**2.9000e-004**	**10.7232**

Riverdale ID Blythe Basin - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	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	14.70	6.60	6.60	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	0.510058	0.053037	0.175964	0.161396	0.026773	0.007006	0.013819	0.022114	0.000717	0.000291	0.024206	0.001529	0.003090

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	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
NaturalGas 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

Riverdale ID Blythe Basin - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	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
Total		**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**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	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
Total		**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**

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

Riverdale ID Blythe Basin - Fresno County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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
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

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	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
Total	**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**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	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
Total	**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**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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**

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Appendix B: Biological Evaluation

Biological Evaluation

RIVERDALE IRRIGATION DISTRICT

BLYTHE AVENUE RECHARGE BASIN PROJECT

FEBRUARY 7, 2022

Shaylea Stark, Biologist
PROVOST & PRITCHARD CONSULTING GROUP | 455 W. FIR AVE, CLOVIS CA 93611

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I. Introduction

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 proposed Blythe Avenue Recharge Basins Project (Project) and surrounding areas, and evaluates potential Project-related impacts to those resources.

Project Description

The Project is located north of West Mt. Whitney Avenue and west of South Blythe Avenue in the southern portion of Fresno County, California, east of the census-designated town of Riverdale (see **Figure 1** and **Figure 2**). The Project's Area of Potential Effect (APE) includes two basins totaling 23 acres, connecting pipelines between basins and Turner Ditch with an additional 50-foot buffer surrounding the APE (see **Figure 3)**. The APE and surrounding lands are agricultural fields.

The Blythe Avenue Recharge Basins Project involves constructing two groundwater recharge basins that will connect to the existing Turner Ditch canal via a 35 cubic feet per second (cfs) turnout and 50-foot pipeline to the northern property and a 35 cfs turnout and 500-foot-long pipeline to the southern property. The Project would require modifications or replacement of existing check structures and a flow measurement standpipe structure. The Project intends to provide for sustainable management of surface and groundwater.

Report Objectives

Construction activities such as that proposed by the Project 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, 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 APE.
4. Identify and discuss Project impacts to biological resources likely to occur onsite within the context of CEQA and/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.

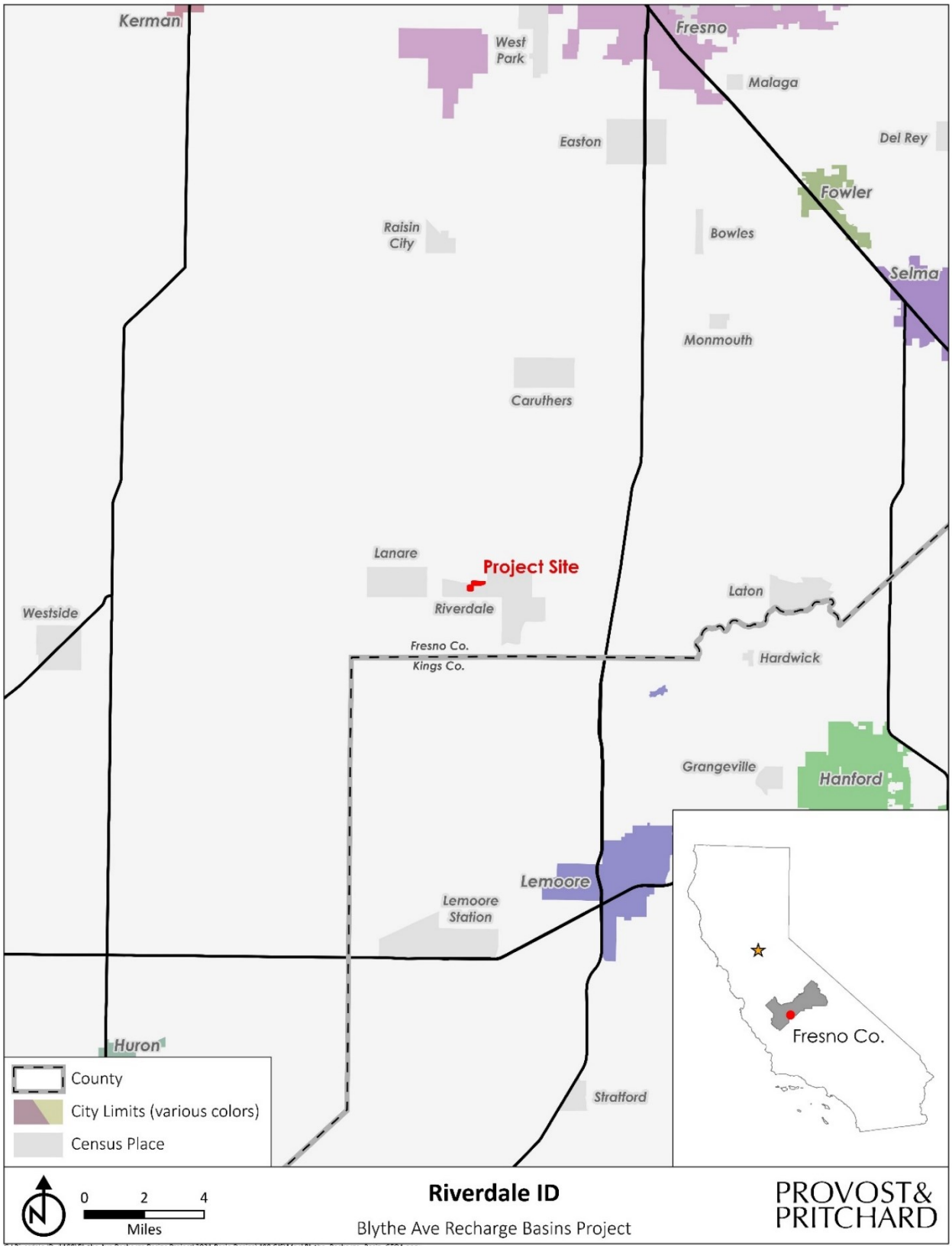

Figure 1. Regional Location Map

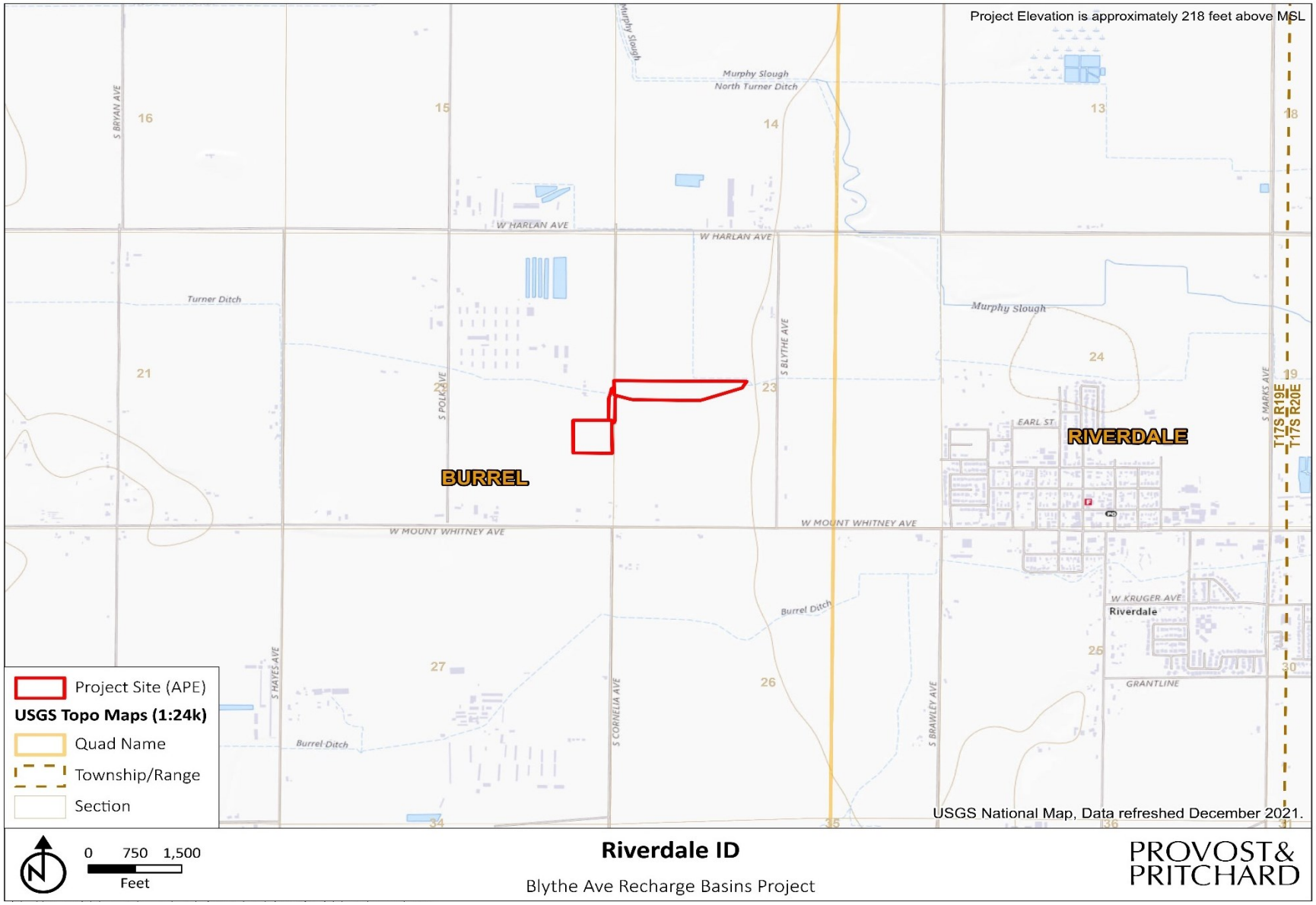

Figure 2. Topographic Quadrangle Map

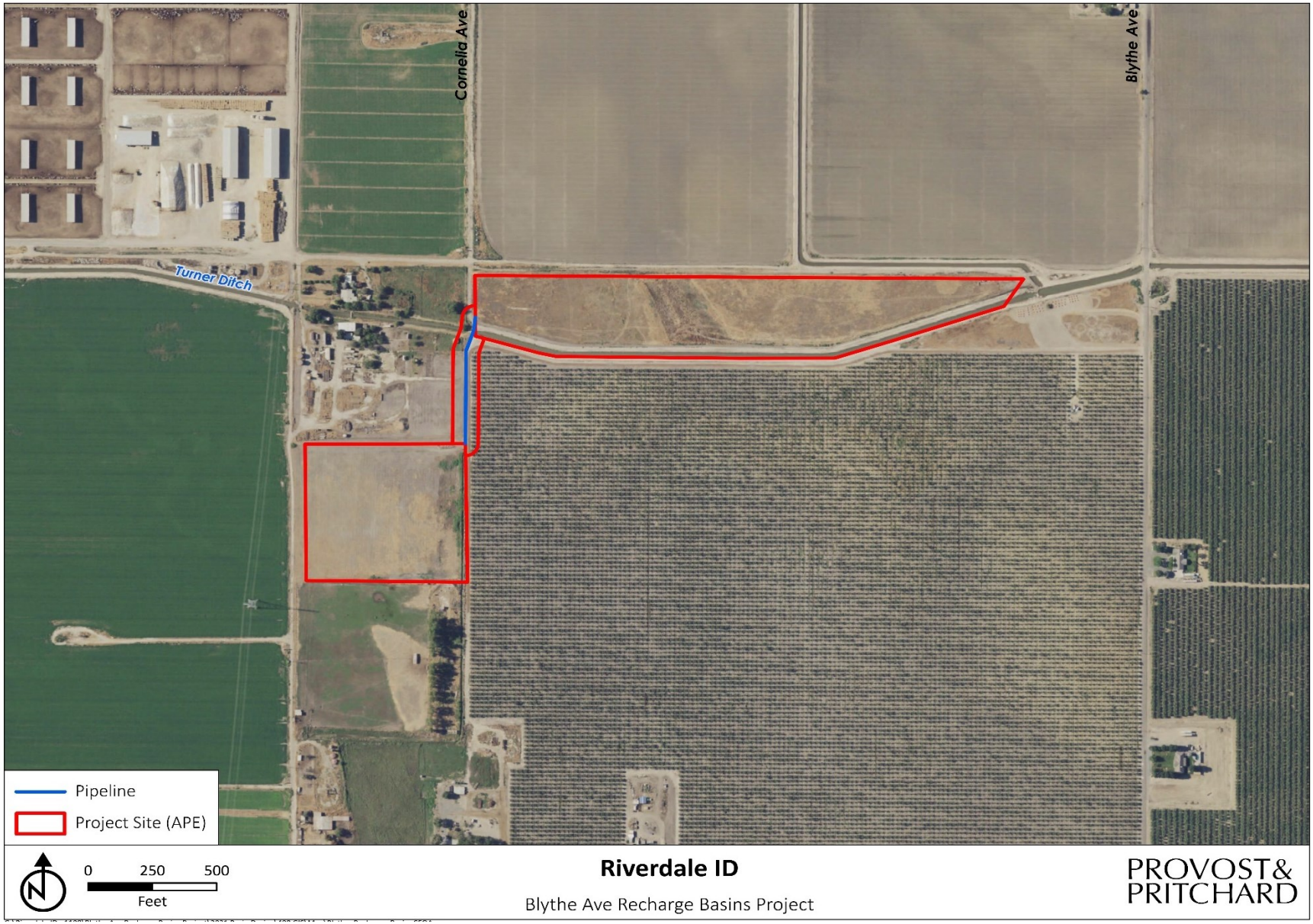

Figure 3. Area of Potential Effect Map

Study Methodology

A reconnaissance-level field survey of the APE (**Figure 3**) and surrounding area was conducted on January 6, 2022, by Provost & Pritchard biologist, Shaylea Stark. The survey consisted of walking and driving thoroughly through the APE while identifying and noting land uses, biological habitats and communities, plant and animal species encountered and assessed for suitable habitats of various wildlife species.

The biologist 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 APE. Sources of information used in preparation of this analysis included: the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB); 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); United States Fish and Wildlife Service (USFWS) Environmental Conservation Online System (ECOS); Information for Planning and Consultation (IPaC) system; the NatureServe Explorer online database; the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Plants Database; 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 focused surveys for special status species. The field survey conducted included the 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 United States Army Corps of Engineers (USACE), CDFW, Regional Water Quality Control Board (RWQCB) and State Water Resources Control Board (SWRCB) and used to support CEQA documents.

II. Existing Conditions

Regional Setting

Topography

The APE lies in Fresno County within the San Joaquin Valley, west of the census-designated town of Riverdale, California (see **Figure 1** and **Figure 2**). The Central 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. The topography is relatively flat with elevations ranging from approximately 205 to 213 feet.

Climate

Like most of California, this part of the valley experiences a Mediterranean climate. Warm, dry summers are followed by cool, moist winters. Summer temperatures range between 80- and 90-degrees Fahrenheit (°F), but often exceeds 90 °F in the upper reaches of the counties. Winter minimum temperatures are near 38 °F. The average annual precipitation is approximately 11 inches, falling mainly from October to April (Weatherspark, 2022).

Hydrology

A watershed is the topographic region that drains into a stream, river, or lake and can consist of many smaller subwatersheds. The nearest surface waters are the Turner Ditch Canal that runs along the southern portion of the APE. The Murphy Slough-Fresno Slough watershed is comprised of stormwater or snowmelt collected in upland areas flowing down into Middle Fork Kings River and connecting to the Kings River. The Kings River then flows into Pine Flat Reservoir and out continuing downstream as the Kings River to Cole slough, Murphey slough, and ending flows into the Turner Ditch canal (USEPA, 2022).

The APE lies within the Murphy Slough-Fresno Slough watershed; Hydrologic Unit Code (HUC): 1803000901 and a single subwatershed: Turner Ditch-Fresno Slough subwatershed; HUC: 180300090103.

Soils

Two soil mapping units representing four soil types were identified within the APE are listed in **Table 1**. The soils are displayed with their core properties in the table below, according to the Major Land Resource Area of California (MLRA) 19 map area. Three of the soils are commonly used for grazing and the drained areas are used for growing irrigated truck and row crops such as lettuce. The other soil is used for grain, pasture, alfalfa and field and truck crops.

Table 1. List of Soils Located Onsite and Their Basic Properties

Soil	Soil Map Unit	Percent of APE	Hydric Unit	Hydric Minor Units	Drainage	Permeability	Runoff
Chino	Sandy loam, 0 to 2 percent slopes	21.2%	Yes	No	Somewhat poorly drained	Moderately slow permeability	Low runoff
	Loam, 0 to 2 percent slopes	71.4%	Yes	Yes	Somewhat poorly drained	Moderately slow permeability	Low runoff

Soil	Soil Map Unit	Percent of APE	Hydric Unit	Hydric Minor Units	Drainage	Permeability	Runoff
	Loam, saline-alkali, 0 to 2 percent slopes	0.5%	Yes	Yes	Somewhat poorly drained	Moderately slow permeability	Low runoff
Foster	Sandy loam, 0 to 2 percent slopes	7.0%	Yes	No	Poorly drained	Moderate permeability	Low runoff

All of the major soil mapping units and some of the minor soil mapping units were identified as hydric. The major and minor soils which are hydric make up 88.73% of the soil in the APE (NRCS, 2022). 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.

The complete Natural Resources Conservation Service (NRCS) Web Soil Survey report is available in **Appendix D** at the end of this document.

Biotic Habitats

Ruderal/Agricultural

The APE is comprised of bare ground with sparse herbaceous vegetation. Most of the APE experiences regular discing for agricultural purposes. Although limited, vegetation within the APE includes Russian thistle (*Kali tragus*), Alkali Heath (*Frankenia salina*), bitter dock (*Rumex obtusifolius*), tall flat sedge (*Cyperus eragrostis*), Bermuda grass (*Cynodon dactylon*), bulrushes (*Scirpus* sp.), and Barnyard grass (*Echinochloa* sp.).

The survey of the APE resulted in the observation of bird species including House Sparrow (*Passer domesticus*), Killdeer (*Charadrius vociferus*), White-crowned Sparrow (*Zonotrichia leucophrys*), and Western Meadowlark (*Sturnella neglecta*). Other animal species seen within or near the APE include California ground squirrel (*Otospermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae),* coyote tracks (*Canis latrans*), and active beekeeping south of the rectangular polygon.

Canal

As illustrated in **Figure 3,** the APE includes 25 acres of land to be converted into two recharge basins with an underground pipeline connecting the basins to the existing canal via turnouts. Most of the canal is barren and devoid of vegetation though some vegetation such as Russian thistle and tobacco trees (*Nicotiana Glauca*) were found within sections of the canal. Turner Ditch canal can be used as a wildlife movement corridor. Coyote and bird tracks were found within and on the banks of the canal. The connections between the new recharge basins and Turner Ditch canal runs along the southern portion of the APE. Disturbance in these locations will be temporary and minimal.

Representative photographs of the site at the time of the survey are presented in **Appendix A** 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 as the special status plant and animal species, these natural communities of special concern can be found within the CNDDB.

According to CNDDB, there are no recorded observations of natural communities of special concern with potential to occur within the APE or vicinity. Additionally, no natural communities of special concern were observed during the biological survey.

Designated Critical Habitat of the APE

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 CNDDB and IPaC, designated critical habitat is absent from the APE 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.

Most of the APE does not contain features that would be likely to function as wildlife movement corridors. The canal could be potentially used as wildlife movement corridors, but Project disturbances would be temporary and minimal and would not discourage wildlife usage of the canal. Further, most of the APE is located in an area where it is possible to be used by species more tolerant of consistent human activities such as some birds and gophers but is not ideal due to the heavy disturbance of human activities, which would discourage dispersal and migration.

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, urban expansion encroaches on the already-limited suitable habitat. This results in sensitive species becoming 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 *Burrel* 7.5-minute quadrangle that contain the APE in its entirety, and for the eight surrounding quadrangles: *Helm*, *Raisin*, *Caruthers*, *Riverdale*, *Lemoore*, *Vanguard*, *Calflax*, and *Five Points*. These species, and their potential to occur within the APE, are listed in **Table 2** and **Table 3** on the following pages. Raw data obtained from CNDDB is available in **Appendix B** at the end of this document. All relevant sources of information, as discussed in the *Study Methodology* section of this report, as well field observations, were used to determine if any special status species are known to be within the APE.

Table 2. List of Special Status Animals with Potential to Occur Onsite and/or in the Vicinity

Species	Status	Habitat	Occurrence within APE
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.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. An American Badger could potentially pass through the APE, but it is unlikely they would forage or live within the APE. The only recorded observation of this species was 14 years ago and 15 miles northwest of the APE.
Blunt-nosed leopard lizard (*Gambelia sila*)	FE, CE, CFP	Inhabits semi-arid grasslands, alkali flats, low foothills, canyon floors, large washes, and arroyos, usually on sandy, gravelly, or loamy substrate, sometimes on hardpan. Often found where there are abundant rodent burrows in dense vegetation or tall grass. Cannot survive on lands under cultivation. Known to bask on kangaroo rat mounds and often seeks shelter at the base of shrubs, in small mammal burrows, or in rock piles. Adults may excavate shallow burrows but rely on deeper pre-existing rodent burrows for hibernation and reproduction.	**Absent.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. There are no recorded observation of this species within the 9 quad search on CNDDB.
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 APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. Nesting and foraging habitat is absent due to incompatible vegetative cover. At most, a Burrowing Owl individual could potentially pass over or through the site but would not be expected to nest or forage within or adjacent to the APE. The presence of raptors in the vicinity makes this site generally unsuitable for Burrowing Owls. The closest recorded observation of this species was 16 years ago and 5.5 miles east of the APE, the most recent recorded observation of this species was 6 years ago and 14.5 miles northwest of the APE.
California glossy snake (*Arizona elegans occidentalis*)	CSC	Inhabits arid scrub, rocky washes, grasslands, and chaparral. Prefers open areas with loose soil for easy burrowing.	**Unlikely.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The only recorded observation of this species was 83 years ago and 7 miles northeast of the APE.
California red-legged frog (*Rana draytonii*)	FT, CSC	Inhabits perennial rivers, creeks, and stock ponds with vegetative cover within the Coast Range and northern Sierra foothills.	**Absent.** The APE does not provide suitable habitat for this species and is outside of its current known range. There are no recorded observation of this

Species	Status	Habitat	Occurrence within APE
			species within the 9 quad search on CNDDB.
Crotch bumble bee (*Bombus crotchii*)	CCE	Occurs throughout coastal California, as well as east to the Sierra-Cascade crest, and south into Mexico. Food plant genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia*, and *Eriogonum*.	**Unlikely.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. A crotch bumblebee could potentially pass through the area, but nesting and foraging habitat is absent due to land use. The only recorded observation of this species was 58 years ago and 11 miles west of the APE.
Delta smelt (Hypomesus transpacificus)	FT, CE	This pelagic and euryhaline species is Endemic to the Sacramento-San Joaquin River Delta, upstream through Contra Costa, Sacramento, San Joaquin, and Solano Counties.	**Absent.** Suitable perennial aquatic habitat for this species is absent from the APE and surrounding lands. There are no connections between streams that host Delta smelt and the canal that runs past the APE. There are no recorded observations of this species within the 9-quad search on CNDDB.
Fresno Kangaroo Rat (*Dipodomys nitratoides exilis*)	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.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The only recorded observation of this species was 30 years ago and 5.5 miles south of the APE.
Giant gartersnake (*Thamnophis gigas*)	FT, CT	Occurs in marshes, sloughs, drainage canals, irrigation ditches, rice fields, and adjacent uplands. Prefers locations with emergent vegetation for cover and open areas for basking. This species uses small mammal burrows adjacent to aquatic habitats for hibernation in the winter and to escape from excessive heat in the summer.	**Unlikely.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The most recent recorded observation of this species was 30 years ago and 1.5 miles west of the APE and is presumed to be possibly extirpated.
Monarch Butterfly (*Danaus plexippus*)	FC	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Larval host plants consist of milkweeds (*Asclepias* sp.). Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico.	**Absent.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. There are no recorded observations of this species within the 9-quad search on CNDDB.
San Joaquin kit fox (*Vulpes macrotis mutica*)	FE, CT	Underground dens with multiple entrances in alkali sink, valley grassland, and woodland in valleys and adjacent foothills.	**Unlikely.** No San Joaquin kit fox dens or other signs were observed during the biological survey. The APE and surrounding areas are frequently cultivated agricultural lands. The most recently recorded observation of this species was 20 years ago and 8.5 miles southeast of the APE. The closest recorded observation of this species was 29 years ago and 5 miles northeast of the APE.
Swainson's Hawk (*Buteo swainsoni*)	CT	Nests in large trees in open areas adjacent to grasslands, grain or alfalfa	**Possible.** While the APE does not contain large trees, the areas surrounding

Species	Status	Habitat	Occurrence within APE
		fields, or livestock pastures suitable for supporting rodent populations.	the APE contains suitable trees and areas for nesting and foraging. The most recent recorded observation of this species was 6 years ago and 2 miles southwest of the APE.
Tipton kangaroo rat Dipodomys nitratoides nitratoides	FE, CE	Burrows in soil. Often found in grassland and shrubland.	**Unlikely.** The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The most recent recorded observation of this species was 14 years ago and 13 miles southeast of the APE.
Tricolored blackbird (*Agelaius tricolor*)	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.** Riparian habitat for foraging and nesting is absent from the APE and surrounding areas. The most recent observation of this species was 8 years ago, 12 miles south of the APE. The closest recorded observation of this species was 22 years ago, 0.5 miles north of the APE.
Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*)	FT	Lives in mature elderberry shrubs of the Central Valley and foothills. Adults are active March to June.	**Absent.** No Elderberry shrubs were seen within the APE or surrounding areas during the biological survey. The most recent recorded observation of this species was 31 years ago and 7.5 miles southeast of the APE.
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	Occupies vernal pools, clear to tea-colored water, in grass or mud-bottomed swales, and basalt depression pools.	**Absent.** Vernal pool habitat is absent from the APE and surrounding areas. This species only lives in ephemeral habitats and needs long periods of dry soils for rest-quiescent which makes the APE unsuitable for this species (USFWS, 2007). There are no recorded observations of this species within the 9-quad search on CNDDB.
Vernal pool tadpole shrimp (*Lepidurus packardi*)	FE	Occurs in vernal pools, clear to tea-colored water, in grass or mud-bottomed swales, and basalt depression pools.	**Absent.** Vernal pool habitat is absent from the APE and surrounding areas. This species only lives in ephemeral habitats and needs long periods of dry soils for rest-quiescent which makes the APE unsuitable for this species (USFWS, n.d.). There are no recorded observations of this species within the 9-quad search on CNDDB.
Western spadefoot (*Spea hammondii*)	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.** Vernal pool and upland habitat are absent from the APE. The nearest recorded observation of this species was 24 years ago and 4.5 miles southwest of the APE.

Table 3. List of Special Status Plants with Potential to Occur Onsite and/or in the Vicinity

Species	*Status*	*Habitat*	*Occurrence within APE*
Alkali-sink goldfields (*Lasthenia chrysantha)*	CNPS 1B	This species is found in vernal pool and wet saline flat habitats. Occurrences are documented in the San Joaquin and Sacramento Valleys at elevations below 656 feet. Bloom period is from February - April.	**Absent.** Vernal pool habitat and required soils are absent from the APE. The APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The most recent recorded observation of this species was 47 years ago and 14 miles northwest of the APE and is presumed to be possibly extirpated.
Brittlescale (*Atriplex depressa*)	CNPS 1B	This species is found in the San Joaquin Valley and Sacramento Valley in alkaline or clay soils, typically in meadows or annual grassland at elevations below 1050 feet. It is sometimes associated with vernal pools. Bloom period is from June–October.	**Absent.** Required soils are absent and the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The most recent recorded observation of this species was 85 years ago and 14.5 miles northwest of the APE.
California alkali grass (*Puccinellia simplex*)	CNPS 1B	This species is found in the San Joaquin Valley and other parts of California in saline flats and mineral springs within valley grassland and wetland-riparian communities at elevations below 3000 feet. Bloom period is from March–May.	**Absent.** Required soils are absent and the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The nearest recorded observation of this species was 87 years ago and 4 miles east of the APE.
Lesser saltscale (*Atriplex minuscula*)	CNPS 1B	This species is found in the San Joaquin Valley in sandy, alkaline soils in alkali scrub, valley and foothill grassland, and alkali sink communities at elevations below 750 feet. Bloom period is from April–October.	**Absent.** Required soils are absent and the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The most recent recorded observation of this species was 85 years ago and 10.5 miles north of the APE.
Munz's tidy-tips (*Layia munzii*)	CNPS 1B	Found in the San Joaquin Valley in alkaline clay soils; often along hillsides in alkali scrub and sometimes valley and foothill grassland. Occurs at elevations between 145 feet and 2625 feet Blooms March–April.	**Absent.** Required soils are absent and the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The only recorded observation of this species was 85 years ago and 7 miles west of the APE.
Panoche pepper-grass (*Lepidium jaredii* ssp. *album*)	CNPS 1B	Found on steep slopes, washes, alluvial-fans, and clay, sometimes alkaline, within Valley and Foothill Grassland communities in western Fresno County at elevations between 600–2400 feet. Blooms February–June.	**Absent.** Suitable habitat required by this species is absent from the APE and surrounding lands. The APE is also outside of the elevational range of this species. The only recorded observation of this species was 129 years ago and 0.5 miles east of the APE and is presumed to be possibly extirpated.
Recurved larkspur (*Delphinium recurvatum*)	CNPS 1B	Occurs in poorly drained, fine, alkaline soils in grassland and alkali scrub communities at elevations between 100 feet and 2600 feet. Blooms March–June.	**Absent.** Required soils are absent and the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The closest recorded observation of this species was 85 years ago and 7 miles west of the APE and is presumed to be extirpated.

Species	*Status*	*Habitat*	*Occurrence within APE*
Subtle orache (*Atriplex subtilis*)	CNPS 1B	This species is found in the San Joaquin Valley in saline depressions in alkaline soils within valley and foothill grassland communities at elevations below 330 feet. Bloom period is from June–October.	**Absent.** Required soils are absent and the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The only recorded observation of this species was 36 years ago, 14 miles northwest of the APE and is presumed to be possibly extirpated.

EXPLANATION OF OCCURRENCE DESIGNATIONS AND STATUS CODES

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
FC	Federal Candidate	CFP	California Fully Protected
		CSC	California Species of Concern
		CCE	California Endangered (Candidate)

CNPS LISTING

1B Plants Rare, Threatened, or Endangered in California and 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 Policy Document contain the following goals and policies related to the Project:

Agriculture

Policy LU-A.1

> The County shall maintain agriculturally designated areas for agriculture use and shall direct urban growth away from valuable agricultural lands to cities, unincorporated communities, and other areas planned for such development where public facilities and infrastructure are available.

Water Quality

Policy OS-A.23

> The County shall protect groundwater resources from contamination and overdraft by pursuing the following efforts: a. Identifying and controlling sources of potential contamination; b. Protecting important groundwater recharge areas; c. Encouraging water conservation efforts and supporting the use of surface water for urban and agricultural uses wherever feasible; d. Encouraging the use of treated wastewater for groundwater recharge and other purposes (e.g., irrigation, landscaping, commercial, and nondomestic uses); e. Supporting consumptive use where it can be demonstrated that this use does not exceed safe yield and is appropriately balanced with surface water supply to the same area; f. Considering areas where recharge potential is determined to be high for designation as open space; and g. Developing conjunctive use of surface and groundwater.

Water Supply

Policy LU-E.11

> The County shall require subdividers of rural residential lots to install, provide, or participate in an effective means for utilization of available surface water entitlements for the area included in the subdivision, such as: a. Facilities to deliver surface water to each parcel; b. To develop a single recharge basin for the entire development (with necessary arrangements for its operation and maintenance); or c. To participate in the activities of a public agency to recharge the available supplies for the beneficial use of the properties within the development and the FCMA. The division shall not render inoperative any existing canal.

Policy PF-C.18

> In the case of lands entitled to surface water, the County shall approve only land use-related projects that provide for or participate in effective utilization of the surface water entitlement such as: a. Constructing facilities for the treatment and delivery of surface water to lands in question; b. Developing facilities for groundwater recharge of the surface water entitlement; c. Participating in the activities of a public agency charged with the responsibility for recharge of available water supplies for the beneficial use of the subject lands.

Policy PF-E.14

> The County shall encourage the use of retention-recharge basins for the conservation of water and the recharging of the groundwater supply.

Policy PF-E.17

The County shall encourage the local agencies responsible for flood control or storm drainage retention-recharge basins located in soil strata strongly conducive to groundwater recharge to develop and operate those basins in such a way as to facilitate year-round groundwater recharge.

Land Use

Policy OS-A.19

The County shall require the protection of floodplain lands and, where appropriate, acquire public easements for purposes of flood protection, public safety, wildlife preservation, groundwater recharge, access, and recreation.

Natural Resources

Policy OS-E.1

The County shall support efforts to avoid the "net" loss of important wildlife habitat where practicable. In cases where habitat loss cannot be avoided, the County shall impose adequate mitigation for the loss of wildlife habitat that is critical to supporting special-status species and/or other valuable or unique wildlife resources. Mitigation shall be at sufficient ratios to replace the function, and value of the habitat that was removed or degraded. Mitigation may be achieved through any combination of creation, restoration, conservation easements, and/or mitigation banking. Conservation easements should include provisions for maintenance and management in perpetuity. The County shall recommend coordination with the US Fish and Wildlife Service and the California Department of Fish and Game to ensure that appropriate mitigation measures and the concerns of these agencies are adequately addressed. Important habitat and habitat components include nesting, breeding, and foraging areas, important spawning grounds, migratory routes, migratory stopover areas, oak woodlands, vernal pools, wildlife movement corridors, and other unique wildlife habitats (e.g., alkali scrub) critical to protecting and sustaining wildlife populations.

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 and National Environmental Policy Act (NEPA). Both agencies review CEQA and NEPA 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 U.S. 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 U.S., 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 U.S." 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 U.S. under the definition;
- Tributaries of waters identified in paragraphs (a)(1)-(4) (i.e. the bulleted items above).

As determined by the U.S. 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 U.S. 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 United States. 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 United States 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 SWRCB 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 United States 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 United States., 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. Projects that discharge wastewater, storm water, or other pollutants into a Water of the United States. 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 a 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

The APE contains suitable nesting and/or foraging habitat for ground and tree nesting avian species. Killdeer were observed during the survey, these birds are known to build nests on bare ground or compacted dirt roads. Although, no nests were observed at the time of survey, trees near the APE have the potential to host nesting birds. The land surrounding the APE has eucalyptus trees large enough to provide suitable nesting habitat for Swainson's Hawk and other raptors. Raptors could also potentially use the ruderal area and surrounding agricultural areas for foraging.

If birds are nesting within the APE during construction, they have the potential to be injured or killed by Project-related activities. In addition to the direct "take" of nesting birds, nesting birds within the APE or adjacent areas could be disturbed by Project-related activities resulting in nest abandonment. Projects that adversely affect the nesting success of raptors and migratory birds or result in the mortality of individual birds

is considered a violation of State and federal laws and are considered a potentially significant impact under CEQA.

Implementation of the following measures will reduce potential impacts to nesting raptors, migratory birds, and special status birds 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 would be implemented prior to the start of construction:

> **Mitigation Measure BIO-1a (*Avoidance*):** The Project's construction activities will 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 BIO-1b (*Pre-construction Surveys*):** If activities must occur within nesting bird season (February 1 to September 15), a qualified biologist would conduct pre-construction surveys for Swainson's hawk nests onsite and within a 0.5-mile radius. This survey would 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. The pre-construction survey would also provide a presence/absence survey for all other nesting birds within the APE and an additional 50 feet, no more than 7 days prior to the start of construction. All raptor nests would be considered "active" upon the nest-building stage.
>
> **Mitigation Measure BIO-1c (*Establish Buffers*):** On discovery of any active nests or breeding colonies near work areas, the biologist will determine appropriate construction setback distances based on applicable CDFW and/or USFWS guidelines and/or the biology of the species in question. Construction buffers will be identified with flagging, fencing, or other easily visible means, and will 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 Animal Species Absent From, or Unlikely to Occur on, the Project Site

Of the 18 regionally occurring special status animal species, 17 are considered absent from or unlikely to occur within the APE due to past or ongoing disturbance and/or the absence of suitable habitat. As explained in **Table 2**, these 17 species include: American badger, blunt-nosed leopard lizard, Burrowing owl, California glossy snake, California red-legged frog, Crotch bumble bee, delta smelt, Fresno kangaroo rat, giant gartersnake, monarch butterfly, San Joaquin kit fox, Tipton kangaroo rat, Tricolored Blackbird, Valley elderberry longhorn beetle, vernal pool fairy shrimp, vernal pool tadpole shrimp, and western spadefoot. Since it is unlikely that these species would occur onsite, implementation of the Project should have no impact on these 17 special status species through construction mortality, disturbance, or loss of habitat. Mitigation measures are not warranted.

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

Of the eight regionally occurring special status plant species, all eight are considered absent from occurring within the APE due to past or ongoing disturbance and/or the absence of suitable habitat. As explained in **Table 3,** these species include: alkali-sink goldfields, brittlescale, California alkali grass, lesser saltscale, Munz's tidy-tips, Panoche peppergrass, recurved larkspur, and subtle orache. Since it is unlikely that these species would

occur onsite, implementation of the Project should have no impact on these eight special status species through construction mortality, disturbance, or loss of habitat. Mitigation measures are not warranted. Agricultural

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

There are no CNDDB-designated "natural communities of special concern" recorded within the APE or surrounding lands. Mitigation is not warranted.

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

Potential Waters of the United States, riparian habitat, typical wetlands, vernal pools, lakes, or streams, and other sensitive natural communities were not observed onsite at the time of the biological survey. The nearest water source is Turner Ditch canal that runs along the southern portion of the APE will have connections with the two new recharge basins. Undoubtedly, some native wildlife species use the APE in the absence of preferred habitat. However, because of the aforementioned disturbance the APE represents relatively low-quality habitat for native plants and animals. Turner ditch canal is an artificial water feature and is typically not regulated by USACE or RWQCB as a jurisdictional water.

Since construction will involve ground disturbance over an area greater than one acre, the Project will also 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 Wildlife Movement Corridors and Native Wildlife Nursery Sites

Most of the APE does not contain features that would be likely to function as wildlife movement corridors. Turner Ditch canal could be potentially used as a wildlife movement corridor, but disturbance to this canal would be temporary in nature and would not disturb nocturnal movements. Furthermore, the Project is located in an area regularly disturbed by humans which would discourage dispersal and migration. Therefore, the Project would have no impact on wildlife movement corridors. Mitigation measures are not warranted.

Project-Related Impacts to Critical Habitat

Designated critical habitat is absent from the APE 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 (HCPs) or a Natural Community Conservation Plan (NCCP) in the Project vicinity. Mitigation measures are not warranted.

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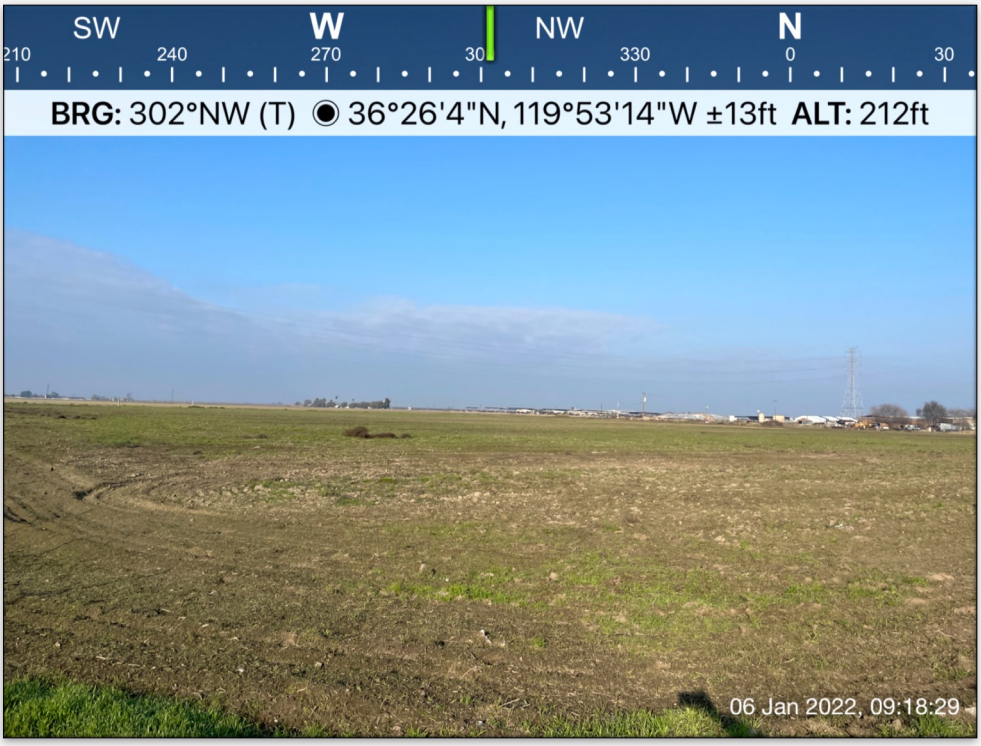
Appendix A: Photos of the Project Area

RIVERDALE IRRIGATION DISTRICT

BLYTHE AVENUE RECHARGE BASIN PROJECT

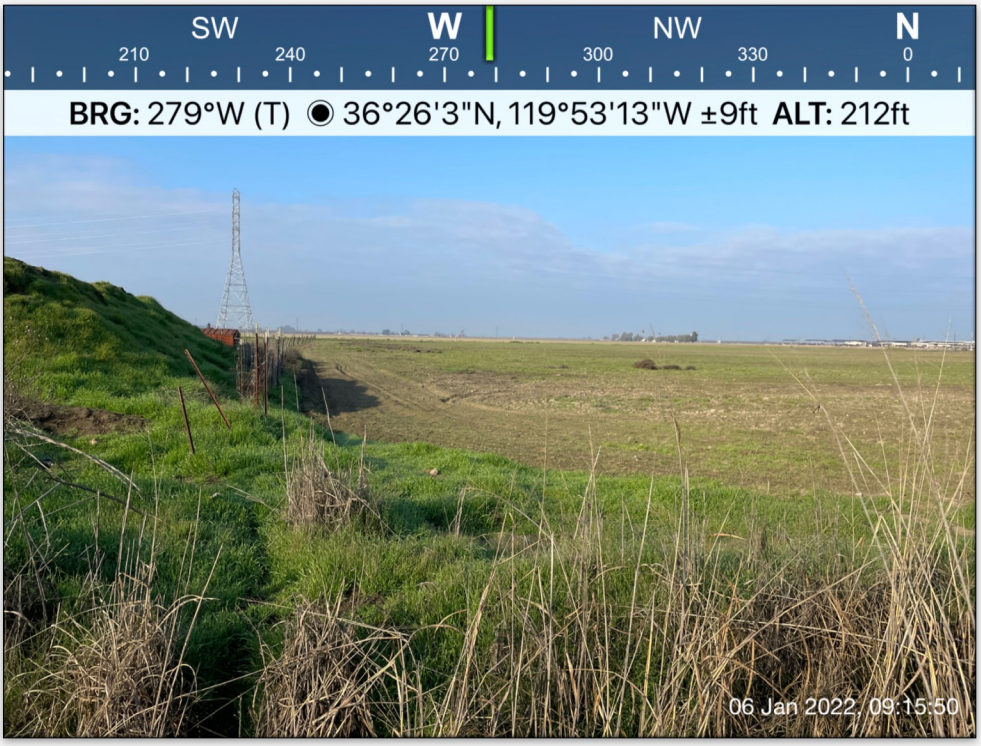


Photograph 1

Overview of square APE.

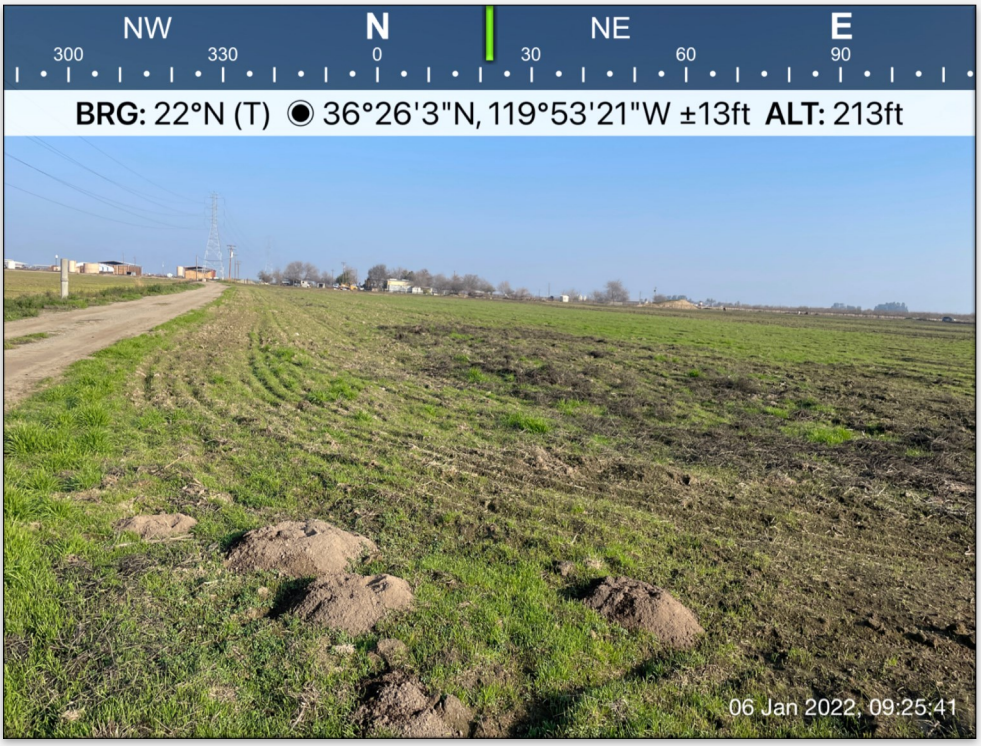
Photograph 2

Eastern boundary of square APE. Photo taken from northeast corner.



Photograph 3

Southern boundary of square APE. Photo taken from southeast corner.

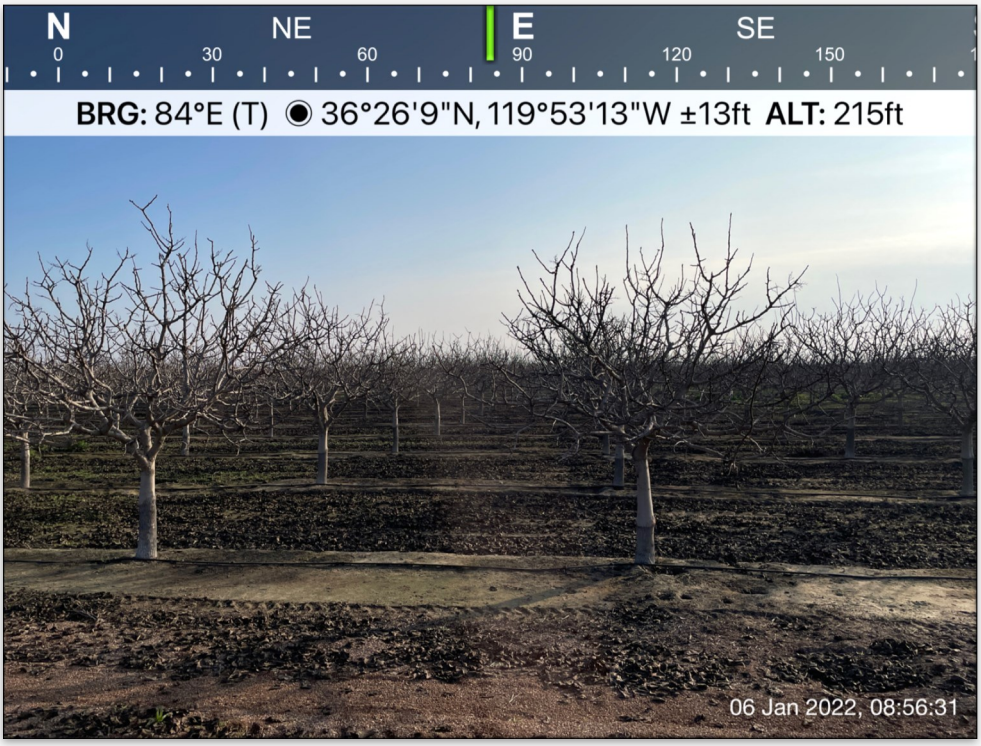


Photograph 4

Western boundary of square APE. Photo taken from southwest corner.

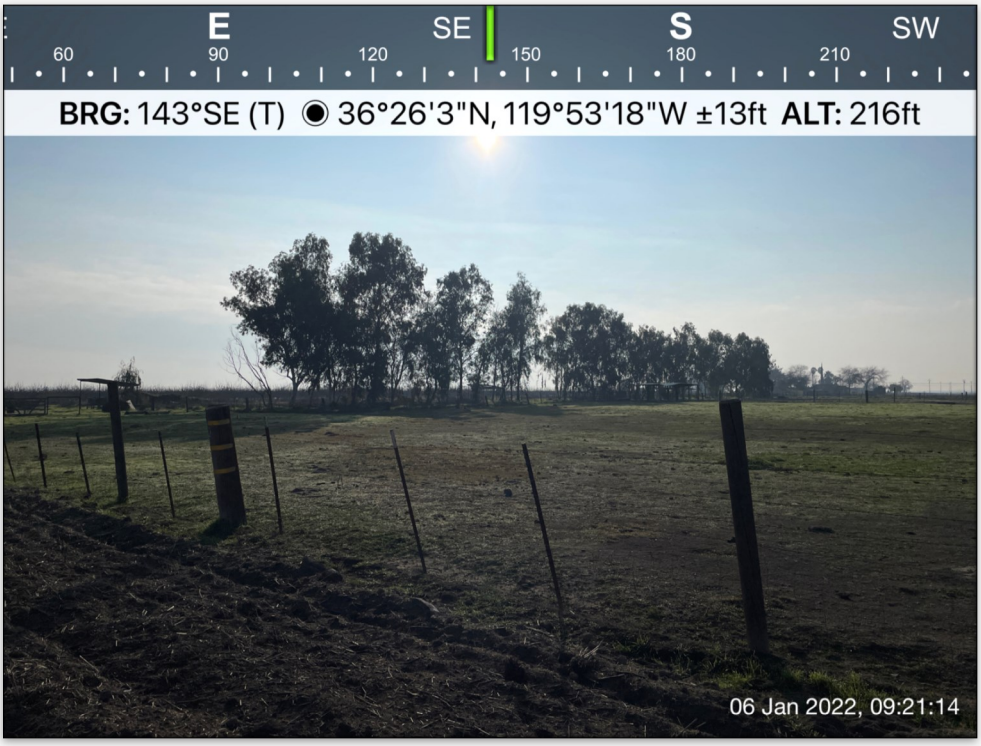
Photograph 5

Northern boundary of square APE. Photo taken from northwest corner.



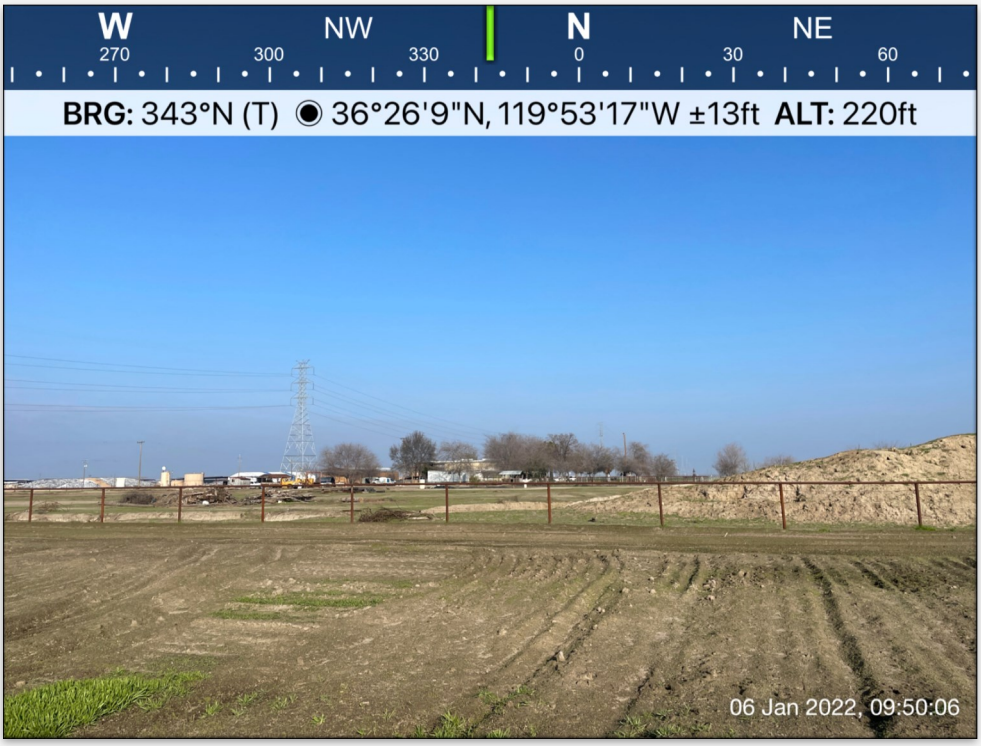
Photograph 6

Example of surrounding land outside of the square APE.



Photograph 7

Example of trees large enough to host nesting birds on the surrounding land outside of the square APE.

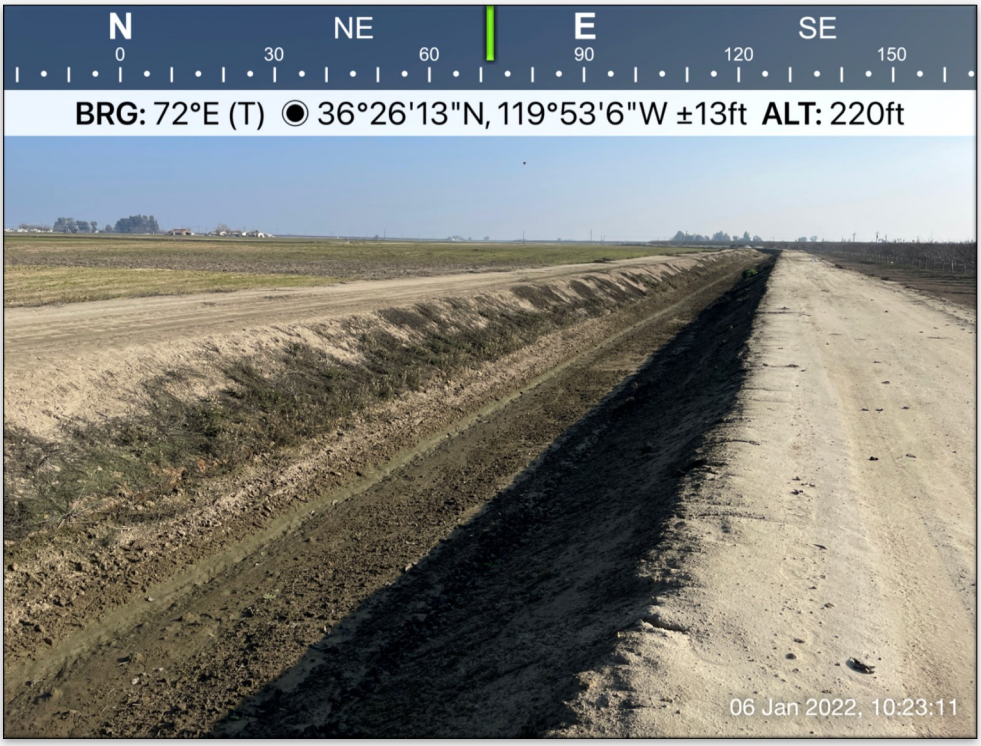


Photograph 8

Another example of trees large enough to host nesting birds on the surrounding land outside of the square APE.

Photograph 9

Overview of location for new Pipeline which will connect to Turner Ditch canal.



Photograph 10

Overview of Turner Ditch canal that runs along the southern portion of the rectangular APE.

Photograph 11

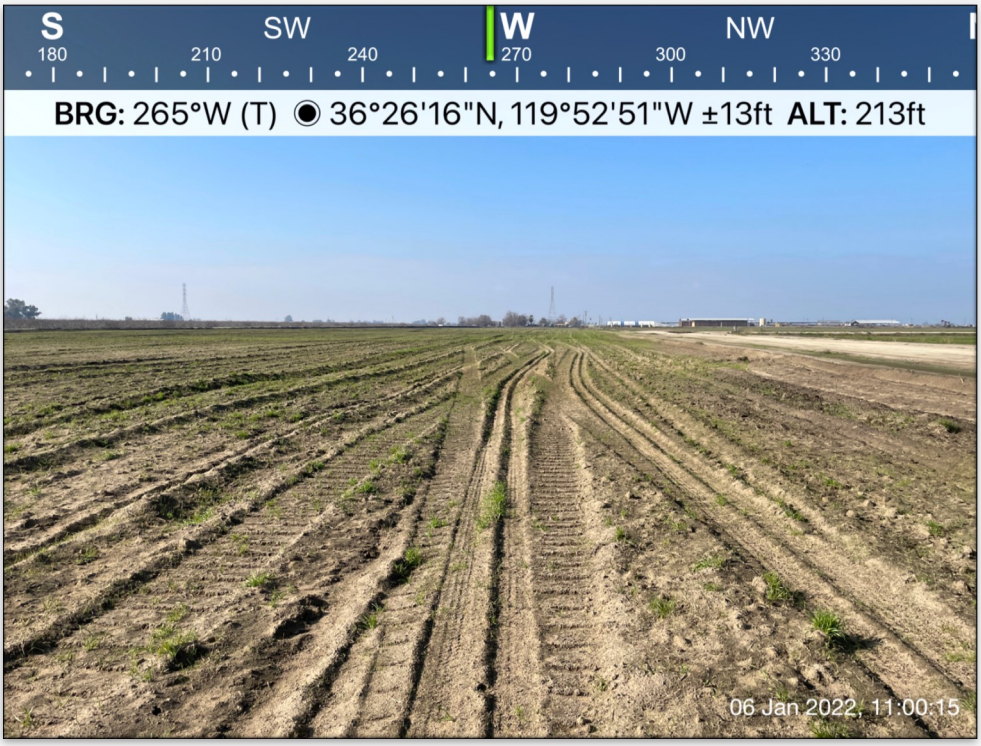
Overview of rectangular APE.

Photograph 12

Southern boundary of rectangular APE. Photo taken from southwest corner.

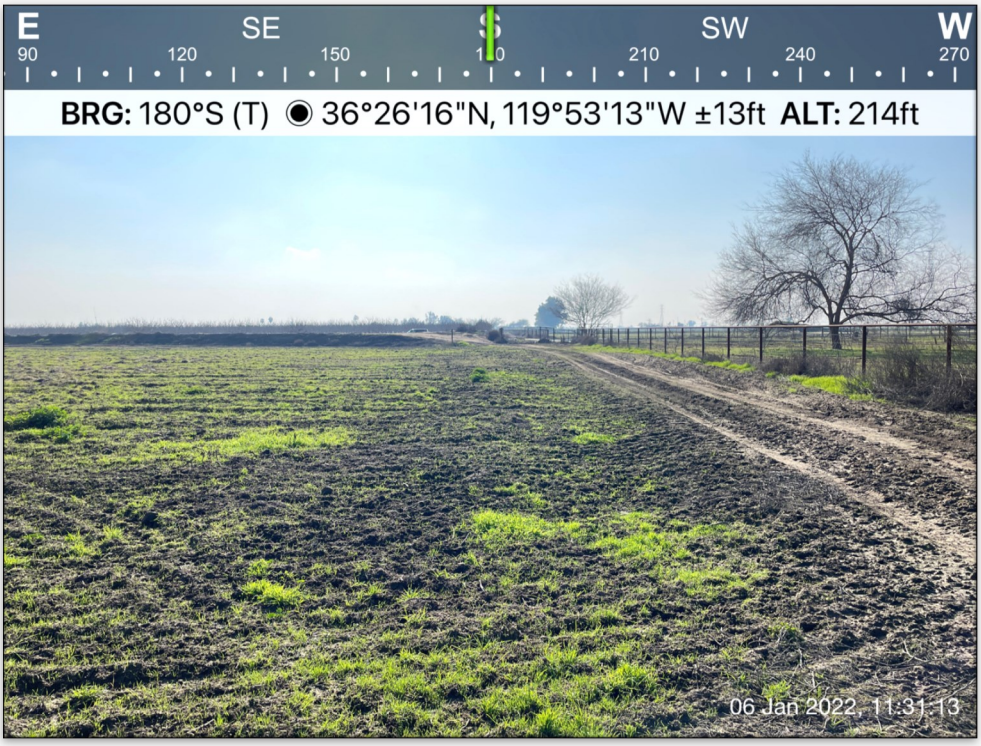
Photograph 13

Eastern boundary of rectangular APE. Photo taken from southeast corner.



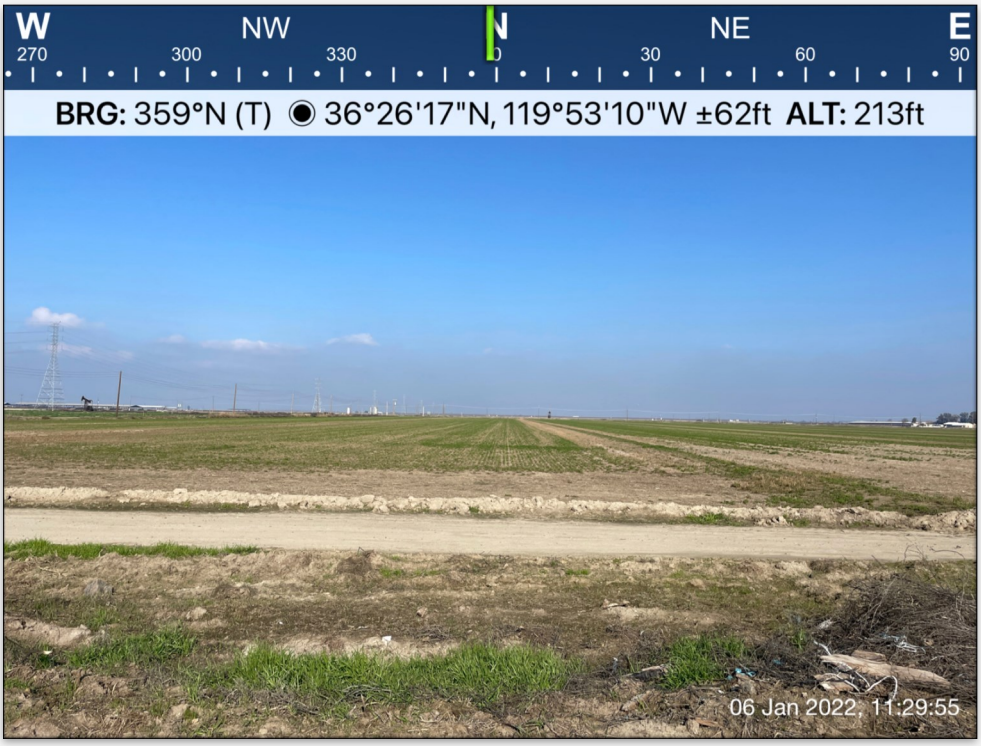
Photograph 14

Northern boundary of rectangular APE. Photo taken from northeast corner.



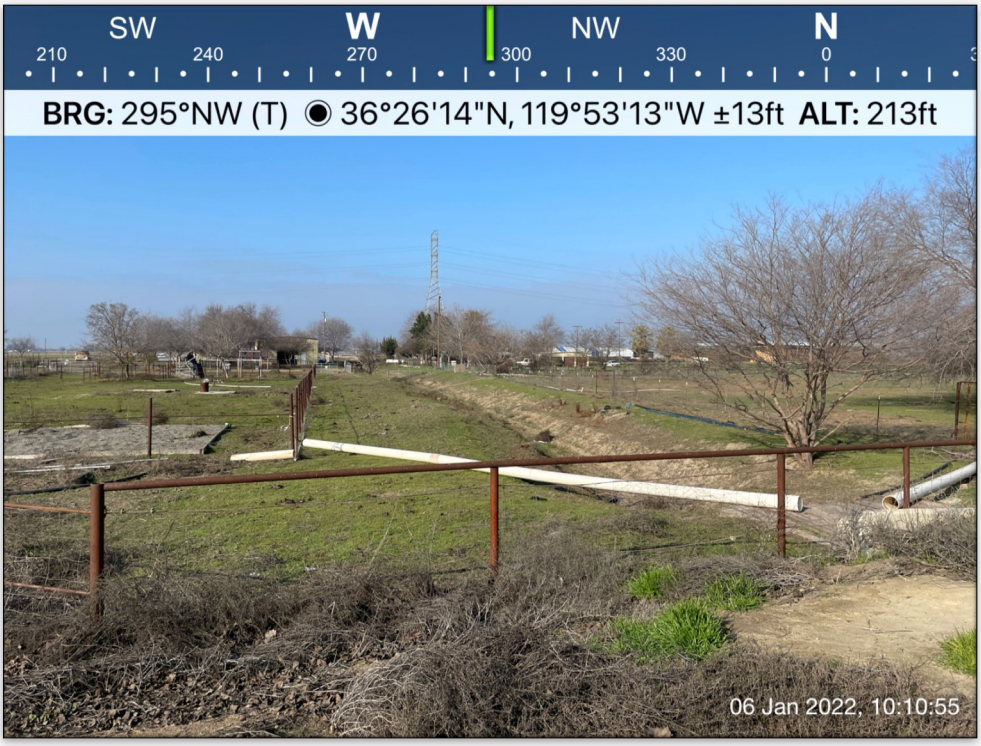
Photograph 15

Western boundary of rectangular APE. Photo taken from northwest corner.



Photograph 16

Example of surrounding land outside of the rectangular APE.



Photograph 17

Another example of surrounding land outside of the rectangular APE with trees large enough to host nesting birds.

Photograph 18

Turner Ditch canal and active beekeeping to the south of the rectangular APE.

Appendix B: CNDDB Quad Search

RIVERDALE IRRIGATION DISTRICT

BLYTHE AVENUE RECHARGE BASIN PROJECT

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Burrel (3611948) OR Helm (3612051) OR Raisin (3611958) OR Caruthers (3611957) OR Riverdale (3611947) OR Lemoore (3611937) OR Vanguard (3611938) OR Calflax (3612031) OR Five Points (3612041))

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
alkali-sink goldfields *Lasthenia chrysantha*	PDAST5L030	None	None	G2	S2	1B.1
American badger *Taxidea taxus*	AMAJF04010	None	None	G5	S3	SSC
brittlescale *Atriplex depressa*	PDCHE042L0	None	None	G2	S2	1B.2
burrowing owl *Athene cunicularia*	ABNSB10010	None	None	G4	S3	SSC
California alkali grass *Puccinellia simplex*	PMPOA53110	None	None	G3	S2	1B.2
California glossy snake *Arizona elegans occidentalis*	ARADB01017	None	None	G5T2	S2	SSC
Crotch bumble bee *Bombus crotchii*	IIHYM24480	None	None	G3G4	S1S2	
Fresno kangaroo rat *Dipodomys nitratoides exilis*	AMAFD03151	Endangered	Endangered	G3TH	SH	
giant gartersnake *Thamnophis gigas*	ARADB36150	Threatened	Threatened	G2	S2	
Hoover's eriastrum *Eriastrum hooveri*	PDPLM03070	Delisted	None	G3	S3	4.2
lesser saltscale *Atriplex minuscula*	PDCHE042M0	None	None	G2	S2	1B.1
Munz's tidy-tips *Layia munzii*	PDAST5N0B0	None	None	G2	S2	1B.2
Panoche pepper-grass *Lepidium jaredii ssp. album*	PDBRA1M0G2	None	None	G2G3T2T3	S2S3	1B.2
recurved larkspur *Delphinium recurvatum*	PDRAN0B1J0	None	None	G2?	S2?	1B.2
San Joaquin kit fox *Vulpes macrotis mutica*	AMAJA03041	Endangered	Threatened	G4T2	S2	
subtle orache *Atriplex subtilis*	PDCHE042T0	None	None	G1	S1	1B.2
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S3	
Tipton kangaroo rat *Dipodomys nitratoides nitratoides*	AMAFD03152	Endangered	Endangered	G3T1T2	S1S2	
tricolored blackbird *Agelaius tricolor*	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	IICOL48011	Threatened	None	G3T2	S3	
western spadefoot *Spea hammondii*	AAABF02020	None	None	G2G3	S3	SSC

Record Count: 21

Appendix C: IPaC Search

RIVERDALE IRRIGATION DISTRICT

BLYTHE AVENUE RECHARGE BASIN PROJECT

United States Department of the Interior

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

In Reply Refer To: January 03, 2022
Consultation Code: 08ESMF00-2022-SLI-0682
Event Code: 08ESMF00-2022-E-02076
Project Name: Riverdale Irrigation District- Blythe Avenue Recharge Basin

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

To Whom It May Concern:

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

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

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

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

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2022-SLI-0682
Event Code: Some(08ESMF00-2022-E-02076)
Project Name: Riverdale Irrigation District- Blythe Avenue Recharge Basin
Project Type: WATER SUPPLY / DELIVERY
Project Description: The proposed project will construct two recharge basins that will connect to the existing Turner Ditch canal via a 35 cfs turnout and 50 foot pipeline to the northern property and a 35 cfs turnout and 500 foot long pipeline to the southern property. The project will require modification or replacement of existing check structures and a flow measurement standpipe structure.

Bullet list of construction components:
o Recharge basins (on 2 parcels) – Square parcel is ~10 acres, rectangular is ~13
o Modify existing check structure(s), possibly replace
o (2) Small turnout structures for 30-35 cfs
o Pipeline +/-500 feet long to connect the southern property to the canal. there may be an additional 50’ or so needed to measure flows going to the north property from the existing Turner Ditch canal. Diameter is 48-inches.
o Flow measurement standpipe structure

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@36.436255550000055,-119.88717762424369,14z

Counties: Fresno County, California

Endangered Species Act Species

There is a total of 10 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

Mammals

NAME	STATUS
Fresno Kangaroo Rat *Dipodomys nitratoides exilis* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5150	Endangered
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered
Tipton Kangaroo Rat *Dipodomys nitratoides nitratoides* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7247	Endangered

Reptiles

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

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii*	Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/2891

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus*	Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/321

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus*	Candidate

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9743

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi*	Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/498

Vernal Pool Tadpole Shrimp *Lepidurus packardi*	Endangered

There is **final** critical habitat for this species. The location of the critical habitat is not available.
Species profile: https://ecos.fws.gov/ecp/species/2246

Critical habitats

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

Appendix D: NRCS Soils Report

RIVERDALE IRRIGATION DISTRICT

BLYTHE AVENUE RECHARGE BASIN PROJECT

United States Department of Agriculture

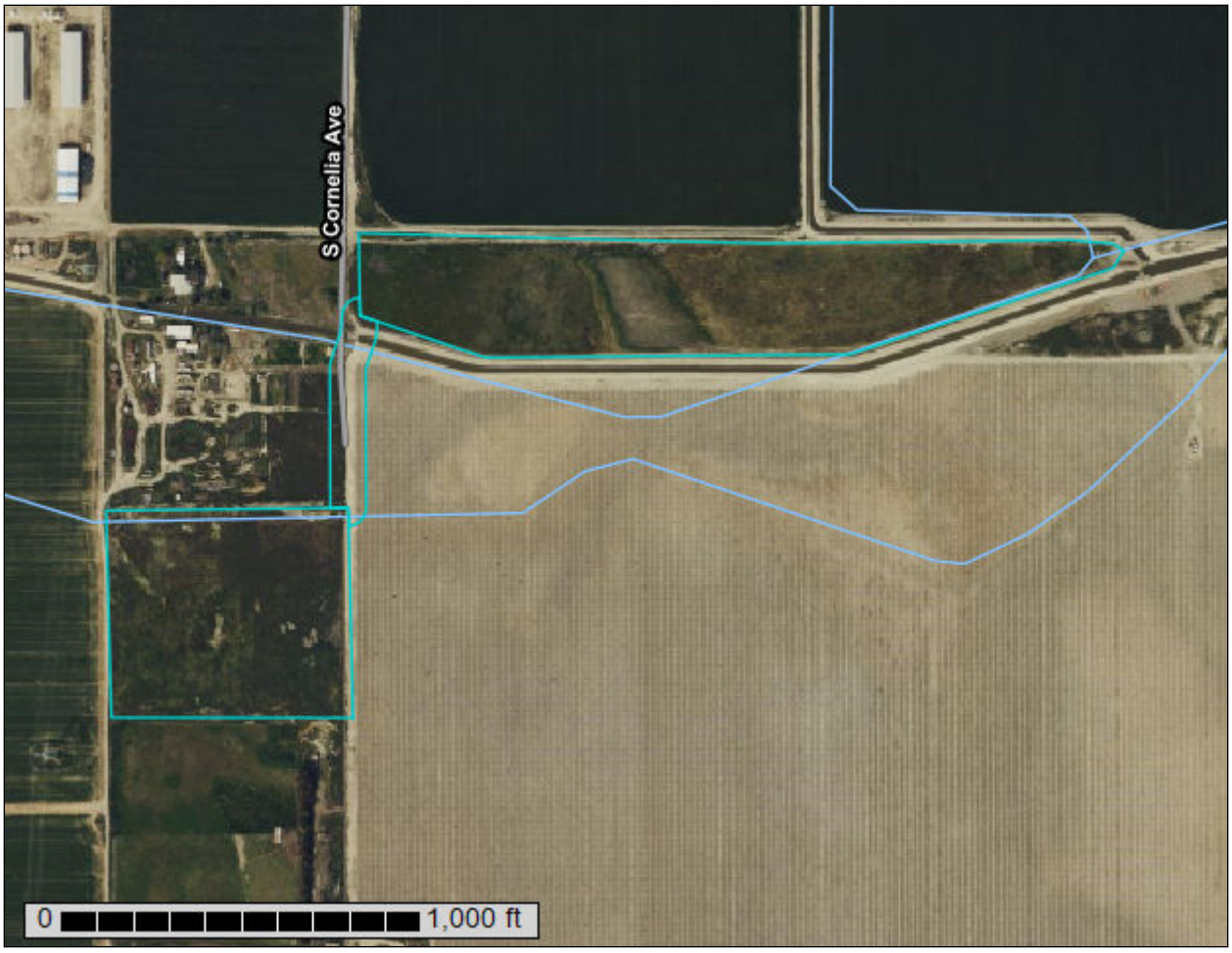
NRCS

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

Riverdale Irrigation District-Blythe Avenue Recharge Basins



January 3, 2022

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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Contents

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

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

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 14, Sep 3, 2021

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

Date(s) aerial images were photographed: Mar 17, 2019—Mar 24, 2019

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
Cl	Chino sandy loam	4.9	21.2%
Cr	Chino loam	16.7	71.4%
Cs	Chino loam, saline-alkali	0.1	0.5%
Fm	Foster sandy loam	1.6	7.0%
Totals for Area of Interest		**23.3**	**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

CI—Chino sandy loam

Map Unit Setting

National map unit symbol: hl2h
Elevation: 160 to 500 feet
Mean annual precipitation: 6 to 14 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 275 days
Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

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

Description of Chino

Setting

Landform: Flood plains, alluvial fans
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

A - 0 to 12 inches: sandy loam
AC - 12 to 40 inches: sandy clay loam
2C - 40 to 60 inches: stratified sandy loam to loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: C
Ecological site: R017XY906CA - Non-Alkali San Joaquin Valley Desert
Hydric soil rating: Yes

Minor Components

Unnamed, compact substratum
Percent of map unit: 10 percent
Landform: Flood plains, alluvial fans
Hydric soil rating: No

Unnamed
Percent of map unit: 5 percent
Landform: Flood plains, alluvial fans
Hydric soil rating: No

Cr—Chino loam

Map Unit Setting
National map unit symbol: hl2n
Elevation: 160 to 200 feet
Mean annual precipitation: 6 to 10 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 275 days
Farmland classification: Prime farmland if irrigated and drained

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

Description of Chino

Setting
Landform: Flood plains, alluvial fans
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile
A - 0 to 12 inches: loam
AC - 12 to 18 inches: clay loam
2C - 18 to 24 inches: stratified fine sandy loam to clay loam

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches

Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.7 inches)

Interpretive groups

Land capability classification (irrigated): 1
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: C
Ecological site: R017XY906CA - Non-Alkali San Joaquin Valley Desert
Hydric soil rating: Yes

Minor Components

Unnamed, compact substratum

Percent of map unit: 10 percent
Landform: Flood plains, alluvial fans
Hydric soil rating: No

Unnamed

Percent of map unit: 5 percent
Landform: Depressions on alluvial fans
Hydric soil rating: Yes

Cs—Chino loam, saline-alkali

Map Unit Setting

National map unit symbol: hl2p
Elevation: 160 to 200 feet
Mean annual precipitation: 6 to 10 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 250 to 275 days
Farmland classification: Prime farmland if irrigated and reclaimed of excess salts and sodium

Map Unit Composition

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

Description of Chino

Setting

Landform: Flood plains, alluvial fans
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from granite

Typical profile

A - 0 to 12 inches: loam
AC - 12 to 40 inches: sandy clay loam
2C - 40 to 60 inches: stratified sandy loam to loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Maximum salinity: Moderately saline to strongly saline (8.0 to 18.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water supply, 0 to 60 inches: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: C
Hydric soil rating: Yes

Minor Components

Unnamed

Percent of map unit: 10 percent
Landform: Depressions on alluvial fans
Hydric soil rating: Yes

Unnamed, non saline-alkali

Percent of map unit: 5 percent
Landform: Depressions on alluvial fans
Hydric soil rating: Yes

Fm—Foster sandy loam

Map Unit Setting

National map unit symbol: hl4d
Elevation: 190 to 600 feet
Mean annual precipitation: 8 to 15 inches
Mean annual air temperature: 61 to 63 degrees F
Frost-free period: 225 to 250 days
Farmland classification: Prime farmland if irrigated and drained

Map Unit Composition

Foster and similar soils: 85 percent

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

Description of Foster

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: Linear, concave
Across-slope shape: Linear, concave
Parent material: Alluvium derived from granite

Typical profile

Ap - 0 to 16 inches: sandy loam
C - 16 to 30 inches: sandy loam
2C - 30 to 60 inches: stratified sand to silt loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 1 percent
Maximum salinity: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.0 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: B
Ecological site: R017XY904CA - Subirrigated Deep Alluvial Fans
Hydric soil rating: Yes

Minor Components

Unnamed, saline-sodic

Percent of map unit: 15 percent
Landform: Depressions on alluvial fans, depressions on flood plains
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: No

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Appendix C: Cultural Resources Information

Riverdale Irrigation District

BLYTHE AVE RECHARGE BASIN PROJECT

Cultural Resources Information

Southern San Joaquin Valley Information Center, CSU Bakersfield, California Historical Resources Information System: Record Search 21-489, dated January 4, 2022.

- There have been no previous cultural resource studies conducted within the project area.
- There has been one cultural resource study conducted within a one-quarter mile radius, FR-02416, however, this report is greater than five years old and should be considered out of date.
- There are three recorded resources within the project area, P-10-006640, 7055, and 7056.
- There is one recorded resource within the one-half mile radius: P-10-003930.
- These resources consist primarily of an historic era railroad, transmission line, and ditches.
- There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

Native American Heritage Commission (NAHC): Sacred Lands File & Native American Contacts List Request initiated in December 2021 and results were received March 30, 2022.

- A Record Search of the NAHC Sacred Lands File was requested for the Area of Potential Effect (APE) and results were negative for the presence of cultural resources.
- A list of nine tribal contacts were sent letters in an attempt to gather information they might have about the Project area. These letters were then mailed out February 1, 2022.
    1. Kings River Choinumni Farm Tribe, Stan Alec, Tribal Contact
    2. Kitanemuk & Yowlumne Tejon Indians, Delia Dominguez, Chairperson
    3. Santa Rosa Rancheria Tachi Yokut Tribe, Leo Sisco, Chairperson
    4. Table Mountain Rancheria, Leanne Walker-Grant, Chairperson
    5. Table Mountain Rancheria Bob Pennell, Cultural Resources Director
    6. Tule River Indian Tribe, Joey Garfield, Tribal Archaeologist
    7. Tule River Indian Tribe, Kerri Vera, Environmental Department
    8. Tule River Indian Tribe, Neil Peyron, Chairperson
    9. Wuksache Indian Tribe/Eshom Valley Band, Kenneth Woodrow, Chairperson
- An additional six tribal contacts were sent a letter March 31, 2022
    10. Big Sandy Rancheria of Western Mono Indians, Elizabeth Kipp
    11. Cold Springs Rancheria of Mono Indians, Carol Bill
    12. Cold Springs Rancheria of Mono Indians, Jared Aldern
    13. Dumna Wo-Wah Tribal Government. Robert Ledger
    14. Traditional Choinumni Tribe, David Alverez
    15. Table Mountain Rancheria, Brenda Lavell

- The District received an email response dated February 14, 2022 from the Santa Rosa Rancheria Tachi-Yokut Tribe, acknowledging the Project and requesting to have an archaeological survey completed, have a tribal monitor on site for all ground disturbance related to the Project, and to have a curation agreement put in place. The District has declined any additional mitigation measures for this project as the Mitigation Measures outlined in CUL-1 and CUL-2 will reduce the potential impacts to any unlikely discoveries to less than significant.

AB 52 Consultation pursuant to Public Resource Code Section 21080.3.1

- Riverdale Irrigation District, as a lead agency, has not received any formal consultation requests pursuant to AB 52.

CHRIS – Record Search Results

California Historical Resources Information System

Fresno
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
E-mail: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

To: Jacqueline Lancaster
Provost & Pritchard Consulting Group
130 N. Garden St.
Visalia, CA 93291

Record Search 21-489

Date: January 4, 2022

Re: Riverdale Irrigation District – Blyth Ave Recharge Basins

County: Fresno

Map(s): Burrel 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 has been no cultural resource studies in the project area. There has been one cultural resource study within a one-half mile radius: FR-02416. This report is greater than five years in age and should be considered out of date for current studies.

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

There are three recorded resources within the project area: P-10-006640, 7055, and 7056. There is one recorded resource within the one-half mile radius: P-10-003930. These resources consist primarily of an historic era railroad, transmission line, and ditches.

There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

COMMENTS AND RECOMMENDATIONS

We understand this project consists of the construction of two recharge basins totaling approx. 23-acres that will connect to the existing Turner Ditch. Further, we understand this project area is agricultural land. Please note that agriculture does not constitute previous development, as it does not destroy cultural resources, but merely moves them around within the plow zone. Because none of this project area has been previously studied for cultural resources, it is unknown if any are present. As such, prior to ground disturbance activities, we recommend a qualified, professional consultant conduct a field survey to determine if cultural resources are present. Further, we recommend a qualified, professional consultant conduct an evaluation of any existing structures that may be negatively impacted by ground disturbance activities. 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 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:

Jeremy E David, Assistant Coordinator **Date**: January 4, 2022

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

NAHC – Sacred Lands File Search Results

Native American Heritage Commission
Native American Contacts List
6/11/2019

Kings River Choinumni Farm Tribe
Stan Alec
3515 East Fedora Avenue
Fresno ,CA 93726
(559) 647-3227 Cell

Foothill Yokuts
Choinumni

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

Santa Rosa Rancheria Tachi Yokut Tribe
Rueben Barrios Sr., Chairperson
P.O. Box 8
Lemoore ,CA 93245
(559) 924-1278
(559) 924-3583 Fax

Tache
Tachi
Yokut

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

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

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589
Porterville ,CA 93258
neil.peyron@tulerivertribe-nsn.gov
(559) 781-4271
(559) 781-4610 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: Esajian Basin Project, Kings County.

Native American Heritage Commission
Tribal Consultation List
Fresno County
1/11/2017

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez, Chairperson
115 Radio Street — Kitanemuk
Bakersfield, CA, 93305 — Southern Valley
Phone: (626)339-6785 — Yokut
deedominguez@juno.com

Santa Rosa Rancheria Tachi Yokut Tribe
Rueben Barrios, Chairperson
P.O. Box 8 — Southern Valley
Lemoore, CA, 93245 — Yokut
Phone: (559)924-1278
Fax: (559)924-3583

Table Mountain Rancheria
Leanne Walker-Grant, Chairperson
P.O. Box 410 — Yokut
Friant, CA, 93626
Phone: (559)822-2587
Fax: (559)822-2693

Table Mountain Rancheria
Bob Pennell, Cultural Resource Director
P.O. Box 410 — Yokut
Friant, CA, 93626
Phone: (559) 325 - 0351
Fax: (559) 325-0394
rpennell@tmr.org

Tule River Indian Tribe
Kerri Vera, Environmental Department
P. O. Box 589 — Yokut
Porterville, CA, 93258
Phone: (559) 783 - 8892
Fax: (559) 783-8932
kerri.vera@tulerivertribe-nsn.gov

Tule River Indian Tribe
Joey Garfield, Tribal Archaeologist
P. O. Box 589 — Yokut
Porterville, CA, 93258
Phone: (559) 783 - 8892
Fax: (559) 783-8932
joey.garfield@tulerivertribe-nsn.gov

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589 — Yokut
Porterville, CA, 93258
Phone: (559) 781 - 4271
Fax: (559) 781-4610
neil.peyron@tulerivertribe-nsn.gov

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710

March 30, 2022

Jackie Lancaster
Provost & Pritchard Consulting Group

Via Email to: JLancaster@ppeng.com

Re: Riverdale Irrigation District - Blythe Ave Recharge Basins Project, Fresno County

Dear Mr. Lancaster:

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: Cameron.Vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Fresno County
3/30/2022

Big Sandy Rancheria of Western Mono Indians
Elizabeth Kipp, Chairperson
P.O. Box 337 — Western Mono
Auberry, CA, 93602
Phone: (559) 374 - 0066
Fax: (559) 374-0055
lkipp@bsrnation.com

Cold Springs Rancheria of Mono Indians
Carol Bill, Chairperson
P.O. Box 209 — Mono
Tollhouse, CA, 93667
Phone: (559) 855 - 5043
Fax: (559) 855-4445
coldsprgstribe@netptc.net

Cold Springs Rancheria of Mono Indians
Jared Aldern,
P. O. Box 209 — Mono
Tollhouse, CA, 93667
Phone: (559) 855 - 5043
Fax: (559) 855-4445
csrepa@netptc.net

Dumna Wo-Wah Tribal Government
Robert Ledger, Chairperson
2191 West Pico Ave. — Foothill Yokut
Fresno, CA, 93705 — Mono
Phone: (559) 540 - 6346
ledgerrobert@ymail.com

Kings River Choinumni Farm Tribe
Stan Alec,
3515 East Fedora Avenue — Foothill Yokut
Fresno, CA, 93726
Phone: (559) 647 - 3227

Santa Rosa Rancheria Tachi Yokut Tribe
Leo Sisco, Chairperson
P.O. Box 8 — Southern Valley
Lemoore, CA, 93245 — Yokut
Phone: (559) 924 - 1278
Fax: (559) 924-3583

Table Mountain Rancheria
Brenda Lavell, Chairperson
P.O. Box 410 — Yokut
Friant, CA, 93626
Phone: (559) 822 - 2587
Fax: (559) 822-2693
rpennell@tmr.org

Table Mountain Rancheria
Bob Pennell, Cultural Resource Director
P.O. Box 410 — Yokut
Friant, CA, 93626
Phone: (559) 325 - 0351
Fax: (559) 325-0394
rpennell@tmr.org

Traditional Choinumni Tribe
David Alvarez, Chairperson
2415 E. Houston Avenue — Foothill Yokut
Fresno, CA, 93720
Phone: (559) 217 - 0396
Fax: (559) 292-5057
davealvarez@sbcglobal.net

Tule River Indian Tribe
Joey Garfield, Tribal Archaeologist
P. O. Box 589 — Yokut
Porterville, CA, 93258
Phone: (559) 783 - 8892
Fax: (559) 783-8932
joey.garfield@tulerivertribe-nsn.gov

Tule River Indian Tribe
Kerri Vera, Environmental Department
P. O. Box 589 — Yokut
Porterville, CA, 93258
Phone: (559) 783 - 8892
Fax: (559) 783-8932
kerri.vera@tulerivertribe-nsn.gov

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589 — Yokut
Porterville, CA, 93258
Phone: (559) 781 - 4271
Fax: (559) 781-4610
neil.peyron@tulerivertribe-nsn.gov

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

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Riverdale Irrigation District - Blythe Ave Recharge Basins Project, Fresno County.

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas, CA, 93906
Phone: (831) 443 - 9702
kwood8934@aol.com

Foothill Yokut
Mono