

ROLLING HILLS WATER METER PROJECT

DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

OCTOBER 2022

SCH NO.

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ACRONYMS

AB Assembly Bill

Act Fish and Wildlife Conservation Act

APE Area of Potential Effect

BAAQMD Bay Area Air Quality Management District

Bakman..... Bakman Water Company

BMP Best Management Practices

BPS Best Performance Standards

CAA Clean Air Act

CalEEMod California Emissions Estimator Modeling (software)

CalEPA California Environmental Protection Agency

CalNAGPRA..... California Native American Graves Protection and Repatriation Act

CARB.....California Air Resources Board

CCAA..... California Clean Air Act

CCR California Code of Regulations

CDFW..... California Fish and Wildlife

CDP census-designated place

CEQA California Environmental Quality Act

CH₄ Methane

CNDDB..... California Natural Diversity Database

CO Carbon Monoxide

CO₂ Carbon dioxide

County..... Madera County

CWA Clean Water Act

DOC (California) Department of Conservation

DPM Diesel Particulate Matter

DTSC..... Department of Toxic Substances Control

EFH Essential Fish Habitat

EIR Environmental Impact Report

EO Executive Order

EPA Environmental Protection Agency

FEMA..... Federal Emergency Management Agency

FMMP..... Farmland Mapping and Monitoring Program

FPPA Farmland Protection and Policy Act

GHGGreenhouse Gas

GIS Geographic Information System

GWP Global Warming Plan

HUC Hydrologic Unit Code

IS Initial Study

IS/MND..... Initial Study/Mitigated Negative Declaration

km kilometers

MBTA..... Migratory Bird Treaty Act

MMRP..... Mitigation Monitoring and Reporting Program

MND..... Mitigated Negative Declaration

MOA Memorandum of Agreement

NAAQS..... National Ambient Air Quality Standards

NAHC..... Native American Heritage Commission

NDNegative Declaration

NMFS..... National Marine Fisheries Service

NOxNitrogen oxides

NO₂ Nitrogen Dioxide

O₃Ozone

PM₁₀ 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.....Rolling Hills Water Meter Project

PVC Polyvinyl chloride

QSD Qualified Sediment Developer

QSP Qualified Sediment Practitioner

RHWS..... Rolling Hills Water System

ROG Reactive Organic Gas

RWQCB..... Regional Water Quality Control Board

SHPO..... State Historic Preservation Officer

SJVAB..... San Joaquin Air Basin

SJVAPCD San Joaquin Valley Air Pollution Control District

SO₂Sulfur Dioxide
SDWASafe Drinking Water Act
SR State Route
SSASole Source Aquifer
SSJVIC Southern San Joaquin Valley Information Center
SWPPP Storm Water Pollution Prevention Plan
SWRCB..... State Water Resources Control Board
TAC Toxic Air Contaminants
USACE..... United States Army Corps of Engineers
USDA United States Department of Agriculture
USEPA..... United States Environmental Protection Agency
USFWS..... United States Fish and Wildlife Service
µg/m³.....micrograms per cubic meter

CHAPTER 1 INTRODUCTION

Provost & Pritchard Consulting Group (Provost & Pritchard) has prepared this Initial Study/Mitigated Negative Declaration (IS/MND) on behalf of Bakman Water Company to address the environmental effects of the Rolling Hills Water Meter Project (Project). This document has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq. The State Water Resources Control Board (State Water Board) 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 References** details the documents and reports this document relies upon to provide its analysis.

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

CHAPTER 2 PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND

2.1.1 Project Title

Rolling Hills Water Meter Project (Project)

2.1.2 Lead Agency Name and Address

State Water Resources Control Board
Division of Financial Assistance
1001 I Street, 16th Floor
Sacramento, CA 95814

2.1.3 Contact Person and Phone Number

Lead Agency Contact

Abbygayle Britton
Environmental Scientist
(916) 449-5990

CEQA Consultant

Provost & Pritchard Consulting Group
Amy Wilson, Environmental Project Manager
(559) 636-1166

2.1.4 Project Location

The Project site consists principally of the Rolling Hills unincorporated community within Madera County. A rural residential subdivision, located in southeast Madera County, approximately 150 miles southeast of Sacramento and 115 miles north of Bakersfield (see [Figure 2-1](#) and [Figure 2-2](#)). The community encompasses an area of approximately 390-acres (0.6 square miles).

2.1.5 General Plan Designation and Zoning

Table 2-1: General Plan Designation and Zoning District

Project Area	General Plan Designation	Zoning District
ONSITE	VLDR- Very Low Density Residential, CC-Community Commercial	RRS- Residential, Rural Single Family RRM-Residential, Rural Multi-Family CRM-Commercial, Rural Median Dist.
ADJACENT LANDS	LDR- Low Density Residential	GV-R: Gateway Village, Rural

2.1.6 Description of Project

Project Background and Purpose

The community of Rolling Hills, a census-designated place (CDP), is located in southeast Madera County along State Route 41 (SR 41), approximately two miles north of Fresno and 13 miles east of Madera as shown in [Figure 2-1](#). The community is in the unincorporated area of Madera County and covers an area of approximately 0.6 square miles.

The Rolling Hills Water System (RHWS), Water System Number CA2010009, became a permitted water system in 1976 and is privately owned and managed by the Bakman Water Company (Bakman). Bakman provides domestic and fire water service for 339 residential and commercial properties by the way of three (3) wells.

There are several challenges faced by the RHWS: lack of water meters at all water service connections, potential pressure and reliability concerns due to the lack of system looping, and the aging of certain system components causing poor performance and anticipated failure. Well No. 2 was constructed in 1981 and, therefore, the facilities are aging and much of the equipment has exceeded its 30-year life expectancy and needs to be replaced to ensure system supply reliability. The system's 333,000 gallon water storage tank also requires cathodic protection to repair some existing interior and exterior surface damage, and to ensure the tank reaches its full life expectancy.

Bakman purchased the RHWS in 2019 and one of the requirements of the acquisition is to have the system fully metered by 2023. According to Assembly Bill 2572 (AB 2572), all urban water suppliers are required to have a water meter installed by 2025, and while Bakman is not an urban water supplier with regard to the RHWS, the Bakman Water Company is considered an urban water supplier when considered in totality. As such, Bakman intends to comply with the metering requirement for the RHWS.

The existing RHWS distribution system lacks looping north of Avenue 11, which creates supply concerns in the case of a failure along an isolated segment of pipe, and pressure concerns due to dead-end mains. Additionally, the system mains were primarily constructed in the 1970s, which means they have exceeded their half-life expectancy (35 years).

The Well No. 2 site needs a full facility refurbishment including a new well pump and motor, piping and accessories, and a new motor control center and shade structure that is compatible with the existing mobile generator. The site also needs a new chlorine analyzer, sand separator, chlorination system, emergency eye wash station, and the various sitework required for the refurbished well site to be functional. While the hydropneumatics tank was replaced in 2012, it needs a new foundation to be set upon. A well investigation will be performed to determine if refurbishment of the well casing via a sleeve will be required. See the Preliminary Engineering Report (PER) in [Appendix D](#) for a site map of the well site and its various improvements. Well No. 2 does not currently require any additional treatment to produce potable water.

In March 2021, a tank assessment on the 330,000 gallon water storage tank was conducted by Superior Tank Solutions. It was found that in order to prolong the useable service life of the tank and maintain structural integrity, new cathodic protection methods would be required to prevent corrosion and future failure.

In summary, the problems in the RHWS are as follows:

- Lack of water meters

- Existing system is not looped causing for pressure, reliability, and stagnation concerns
- Many components of the water system are approaching 50 years in age or older
- Well No. 2 is approaching 50 years in age causing reliability and maintenance concerns
- Lack of cathodic protection for existing water storage tank

Project Description

The Project entails the construction of approximately 2,750 linear feet of 12-inch Polyvinyl chloride (PVC) water main in Avenue 11, and 2,750 linear feet of 8-inch PVC water main in Mountain View Drive and Adobe Way. The alignment of this water main will be located within the County right-of-way. Any existing water main in Avenue 11 will be abandoned in place. Additionally, new water meters and meter boxes will be installed at 339 properties within the RHWS. The improvements will all be incorporated into the existing RHWS, which is currently being fed by three active wells providing safe, clean drinking water. All proposed improvements can be seen in [Figure 2-2](#).

The Project also includes a full facility refurbishment of the Well No. 2 site, including the well pump and all other well site facilities that have exceeded their life expectancy. The well casing will be sleeved if determined necessary during a well investigation. The Project also includes the addition of cathodic protection to the water storage tank.

Construction Methods and Schedule

Excavation during construction would generate spoils that would be used as backfill. For all excavation in roadway areas, once filled and compacted, the roadways would be resurfaced to County standards. Excavations in bare ground areas would be resurfaced with hardscape (pavement or concrete) or revegetated with native grasses indigenous to the disturbed area or landscaped in accordance with County-approved building permit plans.

Construction of the Project would require equipment including, but not limited to: cranes, excavators, backhoes, front-end loaders, dump trucks, skid loaders, compactors, double transfer trucks for soil hauling, concrete trucks, concrete/industrial saws, rollers, and paving equipment. Equipment and staging areas for the pipeline activities would be determined by the contractor, if needed, and within the Project area. Construction activities would generally be limited to weekdays from 7 a.m. to 7 p.m. Nighttime construction is not expected to be necessary. Construction is expected to begin in the fall of 2022 and take approximately eight months of active construction time. Pipeline installation would take place within Avenue 11, Mountain View Drive and Adobe Way. During construction traffic control measures would be used to redirect traffic. Impacts to the existing roadways during construction will be temporary.

Project construction would involve the storage, use, and transport of small amounts of hazardous materials (e.g., asphalt, fuel, lubricants, and other substances) on roadways. Regulations governing hazardous materials transport are stated in Title 22 California Code of Regulations (CCR) and the California Vehicle Code (Title 13 CCR).

Operation and Maintenance

The new water system infrastructure would be maintained in the same way that staff operate and maintain the existing water system and associated infrastructure. Bakman Water Company is equipped with the necessary equipment, staff, training, and certifications to manage the RHWS and maintain the additional infrastructure being added by this Project. No additional staff would be needed as a result of this Project.

2.1.7 Project Alternatives

The preliminary engineering report suggested two potential alternatives to address the problem described in the Project Background and Purpose; ultimately Alternative 1 was selected and is described in the Project Description above.

Alternative 2 would consist of no project. Selecting this alternative would lead to Bakman Water Company being out of compliance with AB 2572 in 2025. Well No. 2 would continue to be in excess of 40 years old, and in need of repairs. The existing water system would continue to have potential pressure and supply issues, and the water storage tank would have a limited future life expectancy. A “No Project” alternative would not provide a solution to any of the stated problems.

2.1.8 Site and Surrounding Land Uses and Setting

Rolling Hills Water System is a water system located in Madera County, just two miles north of the City of Fresno and 13 miles east of Madera alongside SR 41. The Madera County General Plan has designated Rolling Hills as a mix of “Very Low Density Residential” and “Community Commercial” property. The Project is consistent with all Madera County General Plan goals, objectives, and policies for these types of areas. See [Figure 2-3](#) and [Figure 2-4](#) for the general plan designations and zoning, respectively.

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

Direction from Project Site	Existing Use	General Plan Designation	Zone District
NORTH	Agricultural	OS-Open Space	GV-OS Gateway Village - Open Space
EAST	Agricultural	OS-Open Space	ARE-20 Agricultural, Rural, Exclusive (20 acre) District
SOUTH	Agricultural	OS- Open Space; LDR-Low Density Residential	G-MUC - Gunner Ranch Mixed Use
WEST	Agricultural	LDR-Low Density Residential	GV-R Gateway Village - Residential

2.1.9 Other Public Agencies Whose Approval May Be Required

The State Water Board, as the Lead Agency, has jurisdiction over the approval of this Project and would be requested to take action on the following:

- Adoption of the Mitigated Negative Declaration with appropriate findings; and
- Adoption of the Mitigation Monitoring and Reporting Program

Madera County may issue the following ministerial permits for the Project if and once the above listed actions are taken:

- Road Encroachment Permit

Other agencies, including but not limited to the following, may have authority to issue approvals or permits prior to Project implementation, including but not limited to:

- State Water Resources Control Board Notice of Intent for coverage under Statewide Construction Stormwater Permit
- State Water Resources Control Board, Division of Drinking Water, Domestic water Supply Permit Amendment
- San Joaquin Valley Air Pollution Control District, Indirect Source Review (Rule 9510)

Bakman has rights to operate, maintain and improve the components of the water system on private properties within the community; therefore, no additional permits or permissions will be required to install water meters on all services.

2.1.10 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 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.

The State Water Resources Control Board has not received written correspondence from Tribes pursuant to Public Resources Code Section 21080.3.1 requesting notification for the Project area.

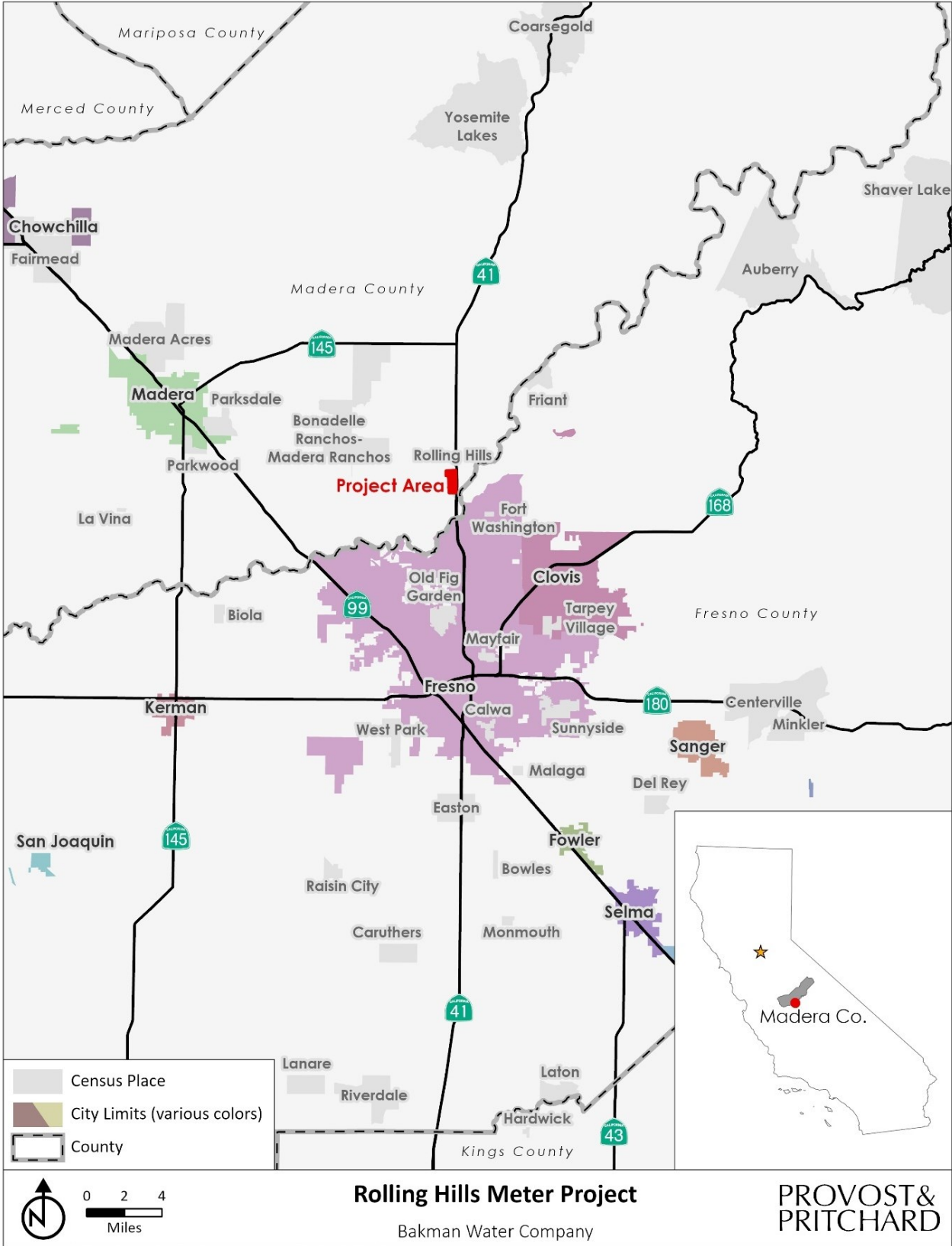


Figure 2-1: Regional Location

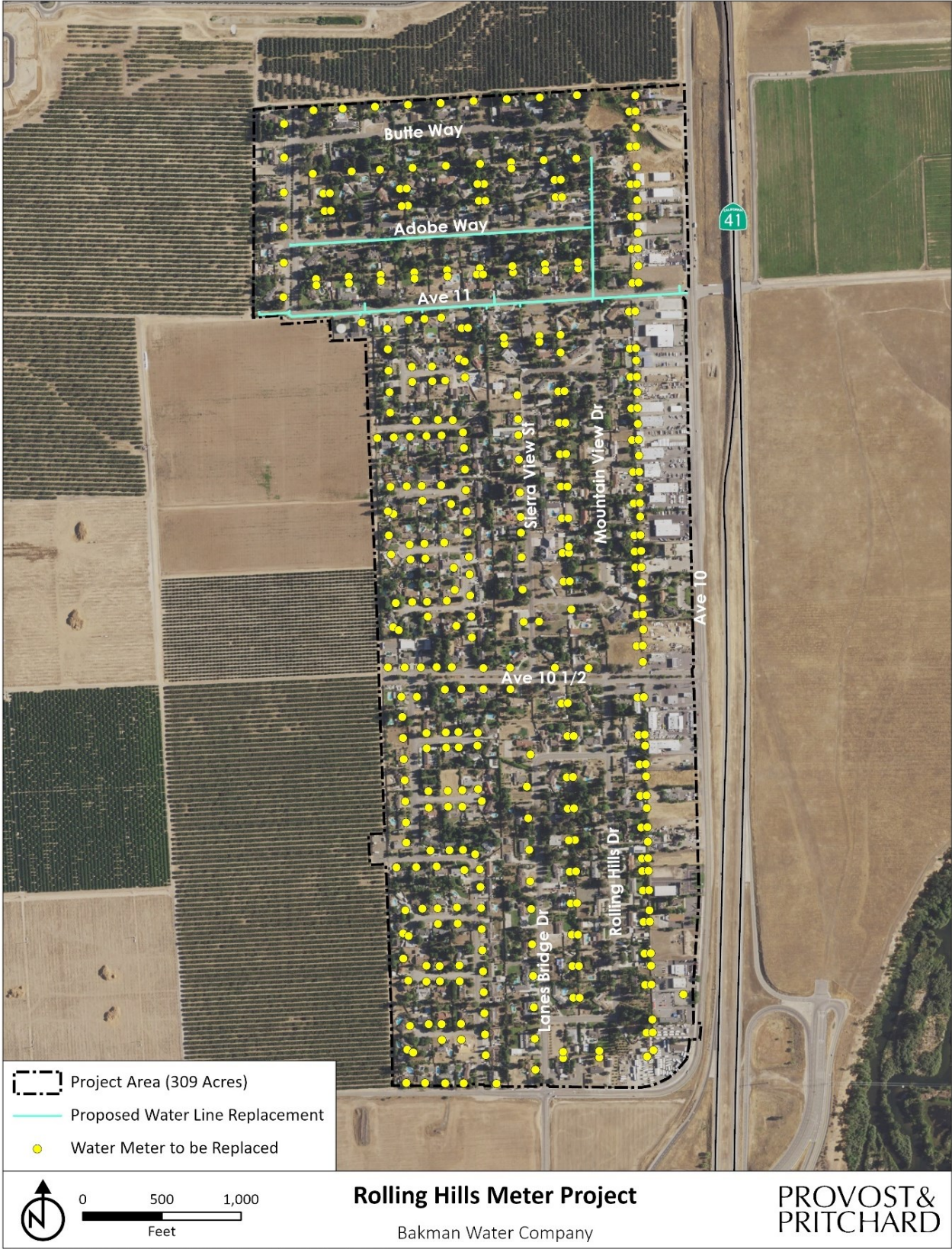


Figure 2-2: Site Plan

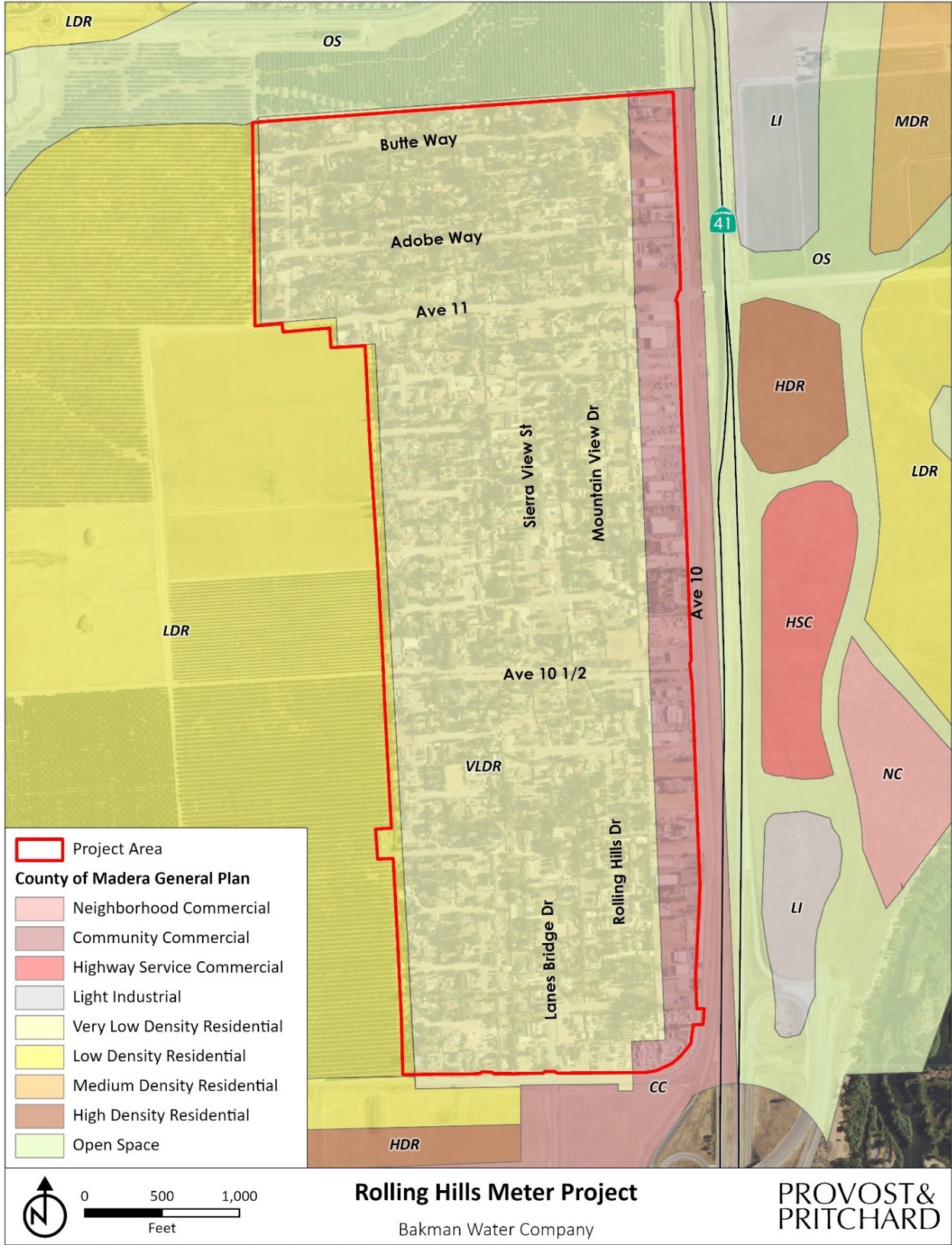


Figure 2-3: General Plan Land Use Designation Map

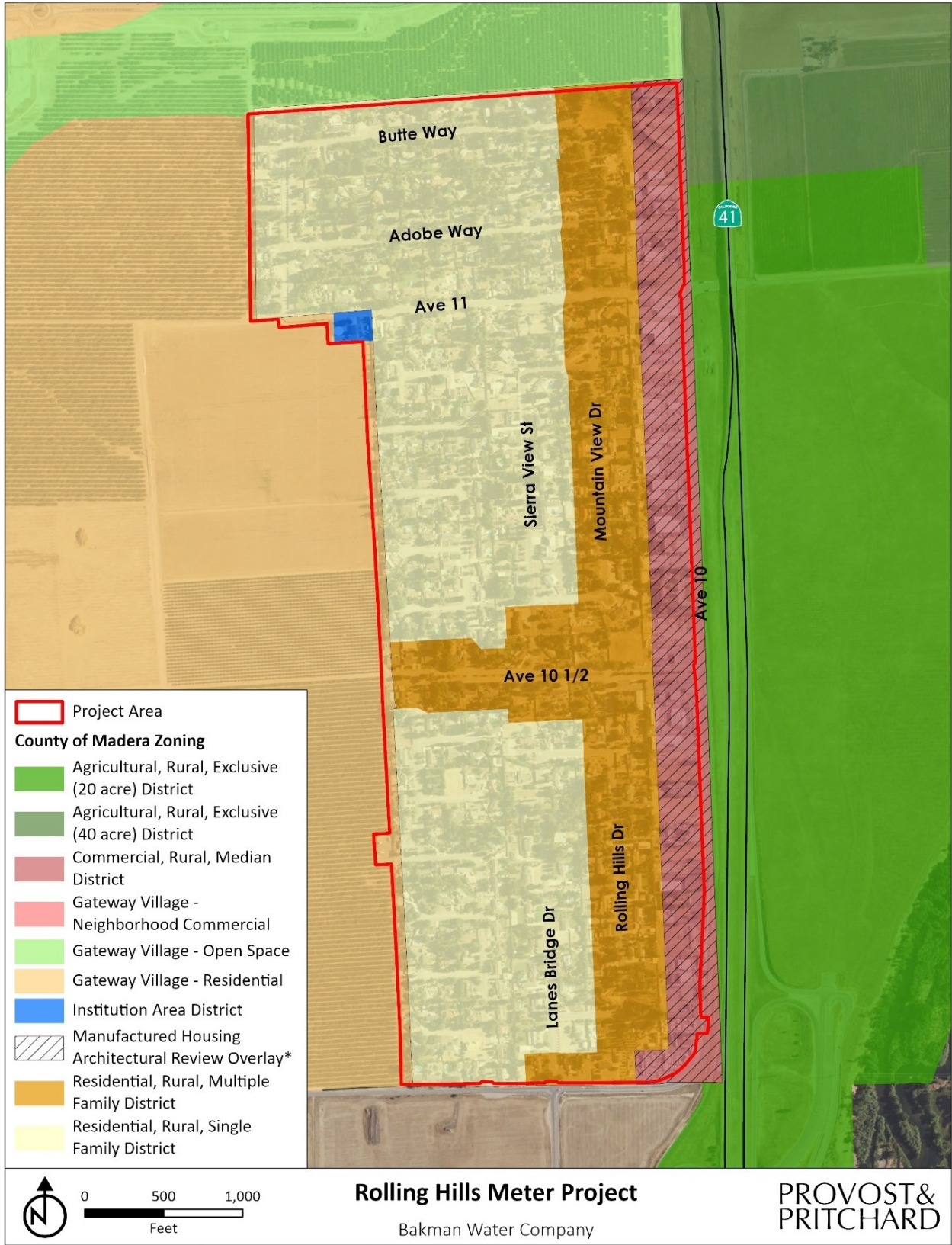


Figure 2-4 Zone District Map

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.

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

Date

Bridget Binning, Senior Environmental Scientist

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

4.1.1 Environmental Setting and Baseline Conditions

The Project is located in southern Madera County in the Central San Joaquin Valley. Lands in the surrounding vicinity consist of relatively flat irrigated farmlands. Agricultural practices in the vicinity consist of row crop and orchard cultivation. The Project site is located within the Rolling Hills community which consists primarily of a residential neighborhood, with commercial uses on the eastern end of the Project area. The Project site is approximately 47 miles east of the Coastal Range and approximately 14 miles west of the foothills of the Sierra Nevada. Neither of these foothills or mountain ranges are typically visible from the vantage point of the Project site.

4.1.2 Impact Analysis

a) Have substantial adverse effect on a scenic vista?

No Impact. The primary scenic vista in the region is the Sierra Nevada foothills to the east. The Project would not interfere with public views of the Sierra Nevada foothills during construction or operation as all Project related activity would be temporary. Pipelines would be placed underground, and meter

placement would not obstruct any views in the area. Furthermore, the Project site does not stand out from its surroundings in any remarkable fashion. There would be no impacts.

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

No Impact. There are no scenic highways located within the immediate vicinity of the Project site.¹ The Project would therefore not impact any scenic resources including but not limited to trees, rock outcroppings, or historical buildings affiliated with a scenic highway. Therefore, there would be no 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 Project site is located within a residential subdivision in Madera County. The proposed pipeline and water meters would be located primarily underground, and therefore would not degrade the existing visual character of the Project site or surroundings, and the improvements to the existing well and water storage tank would not substantially change the visual character of those water system components. The Project would not conflict with applicable zoning and other regulations that govern scenic value or quality. 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. No new lighting in the area is proposed as part of the Project. Additional vehicular traffic after construction would be limited to operation and maintenance on an as-needed basis which would be performed during daylight hours, except in an unforeseen emergency situation. Therefore, the Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area or be inconsistent with existing conditions. Therefore, there would be no impact.

¹ (California Department of Transportation - Scenic Highways 2022) Accessed March 11, 2022.

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

4.2.1 Baseline Conditions

The Project site is located in the community of Rolling Hills, a CDP, located in southeast Madera County along State Route 41 (SR 41), approximately two miles north of Fresno and 18 miles east of Madera. The community is in the unincorporated area of Madera County and covers an area of approximately 0.6 square miles. The Farmland Mapping and Monitoring Program (FMMP) for Madera County designates the project site as Urban and Built-Up Land. The surrounding area consists of Prime Farmland and Grazing Land.

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) 2016 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.

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. Pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency², the Project site is not considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, therefore the Project would not convert said Farmland to non-agricultural use. There would be no impact.

² (California Department of Conservation - Farmland Mapping & Monitoring Program 2022) Site accessed March, 2022.

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

No Impact. The Project site is not zoned for agricultural use and it is not subject to a Williamson Act agricultural land conservation contract (Figure 4-1). Therefore, the Project will not affect existing agriculturally zoned or Williamson Act contract parcels. 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. The Project site is not within the vicinity of a forest 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)). According to the Madera County General Plan, the Project area does not include any land used or designated for timber, forest land, or timber harvesting industry. Therefore, the Project would not conflict with existing zoning for, or cause rezoning of forest land. There would be no impact.

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

No Impact. As discussed above in Impact Assessment “c”, the Project is not within the vicinity of a forest 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)). According to the County of Madera General Plan, the Project area does not include any land used or designated for timber, forest land, or timber harvesting industry. Therefore, 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?

No Impact. The Project would install new meters, new distribution mains, refurbish Well No. 2, and provide cathodic protection for the water storage tank. The Project would not involve additional changes to the existing environment that would change the nature of or location such that it would lead to conversion of farmlands to non-agricultural uses. Furthermore, the Project would not convert forest lands to non-forest uses. Therefore, there would be no impact.

4.2.3 Federal Cross-Cutting Topic

Farmland Protection Act

The Farmland Protection and Policy Act (FPPA) was enacted in 1981 to minimize the loss of prime farmland and unique farmlands because of federal actions that converted these lands to nonagricultural uses. The FPPA assures that federal programs are compatible with state and local governments, and private programs and policies to protect farmland³.

As defined by the FPPA, prime farmland is farmland that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and also is available for these uses. A unique farmland is land other than prime farmland that is used for production of specific, high-value food

³ (United States Department of Agriculture - NRCS Farmland Protection Policy Act 2022) Accessed May 2022.

and fiber crops; it has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops.

As previously concluded, the proposed Project is not located on land classified by the DOC as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. These classifications recognize a land's suitability for agricultural production by considering the physical and chemical characteristics of the soil, such as soil temperature range, depth of the groundwater table, flooding potential, rock fragment content, and rooting depth. The classifications also consider location, growing season, and moisture available to sustain high-yield crops. Together, Important Farmland and Grazing Land are defined by the DOC as "Agricultural Land."

The proposed Project would be on land that is classified as "Urban and Built-up Land," (Figure 4-1) which consists of lands supporting uses such as; residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes. The Project is located within developed Urban and Built-up Land, and therefore no farmland would be converted as a result of the pipeline and meter installation, well refurbishment, or addition of cathodic protection to the water storage tank. Therefore, the proposed Project would not conflict with the Farmland Protection and Policy Act or adversely affect prime or unique farmland.

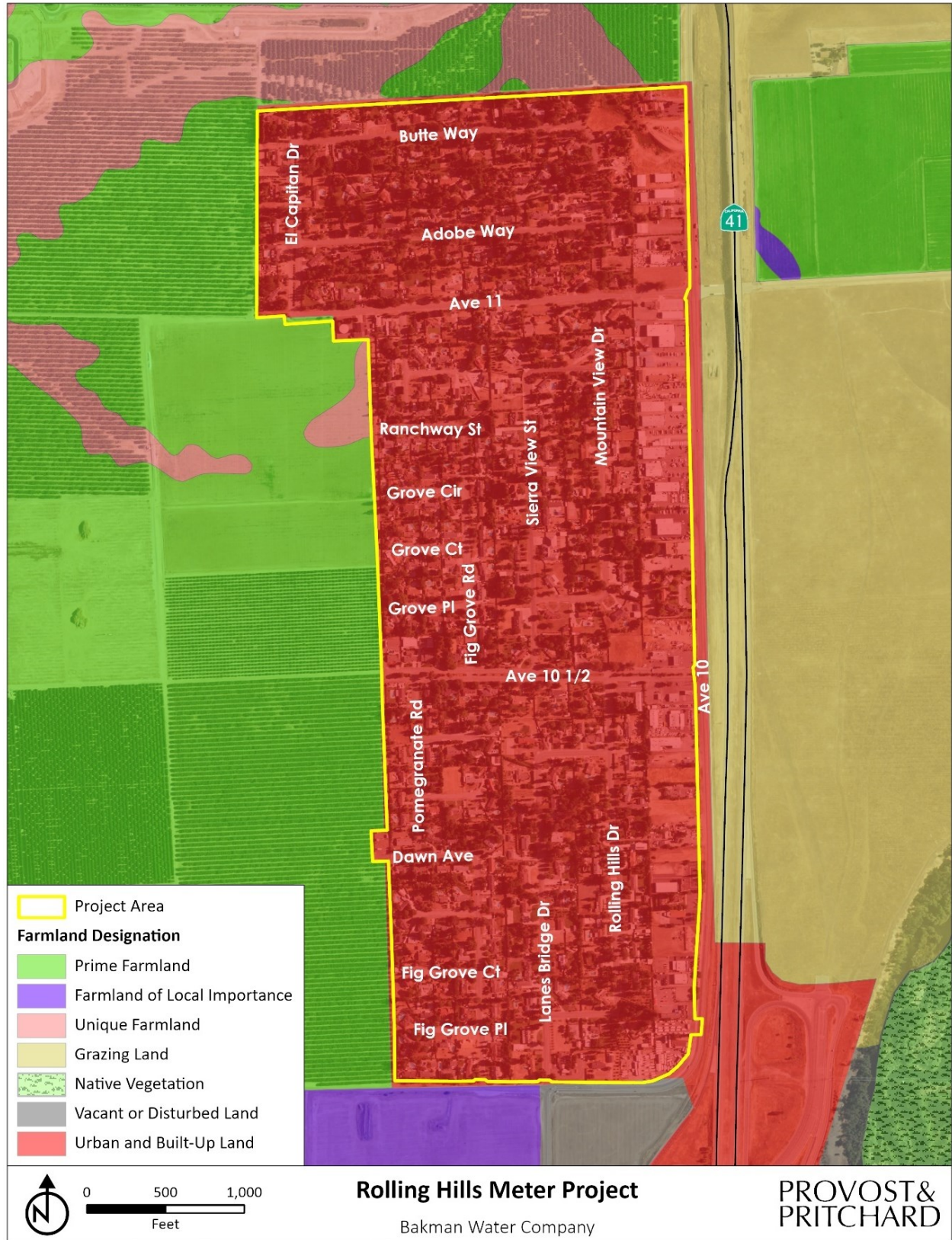


Figure 4-1: Farmland Map

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

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 United States Environmental Protection Agency (USEPA) designates areas for ozone, CO, and NO₂ as “does not meet the primary standards,” “cannot be classified,” or “better than national standards.” For SO₂, 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 USEPA uses the same sub-categories for nonattainment status: serious, severe, and extreme. In 1991, USEPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or III for PM₁₀ based on the likelihood that they would violate national PM₁₀ 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 [Table 4-4](#). The SJVAB is currently designated as a nonattainment area with respect to the State PM₁₀, 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

USEPA re-designated the San Joaquin Valley to attainment status for the PM₁₀ NAAQS and approved the PM₁₀ Maintenance Plan. California’s ambient air monitoring network is one of the most extensive in the world, with more than 250 sites and 700 individual monitors measuring air pollutant levels across a diverse range of topography, meteorology, emissions, and air quality. Existing levels of ambient air quality and historical trends and projections in the Project are best documented by measurements made by these monitoring sites. The nearest monitoring site to the Project is Fresno-Sierra Skypark #2 location in the City of Fresno at 4143 W. Alluvial Avenue. The site measures O₃. The nearest monitoring site that measures PM₁₀, and PM_{2.5}, is the Clovis-N Villa Avenue location in the City of Clovis at 908 N. Villa Ave. Data presented in **Table 4-4** summarize monitoring data from the CARB’s Aerometric Data Analysis and Management System for the Fresno-Skypark #2 location and the Clovis-N Villa Avenue location, published from 2018 to 2020.

Table 4-4. Ambient Air Quality Monitoring Summary

Air Pollutant	Averaging Time	Item	2018	2019	2020
Ozone	1-hour	Max 1 Hour (ppm)	0.100	0.097	0.116
		Days > State Standard (0.09 ppm)	4	2	8
	8-hour	Max 8 Hour (ppm)	0.087	0.084	0.095
		Days > State Standard (0.070 ppm)	30	9	19
		Days > National Standard (0.070 ppm)	27	9	18
		Days > National Standard (0.075 ppm)	13	3	11
Inhalable coarse particles (PM ₁₀)	Annual	National Annual Average (µg/m ³)	39.6	32.6	50.8
		National 24 Hour (µg/m ³)	118.6	155.7	296.0
	24-hour	Days > State Standard (50 µg/m ³)	14	11	114
		Days > National Standard (150 µg/m ³)	0	0	1
Fine particulate matter (PM _{2.5})	Annual	National Annual Average (µg/m ³)	14.3	-	18.4
		24 Hour (µg/m ³)	82.3	39.1	193.7
	24-hour	Days > National Standard (35 µg/m ³)	26	-	40

Table 4-5: 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	0.070 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	
	1-hour	20 ppm	Attainment/ Unclassified	35 ppm	Attainment/ Unclassified
Carbon Monoxide (CO)	8-hour	9 ppm		9 ppm	
	8-hour (Lake Tahoe)	6 ppm	–	–	

Pollutant	Averaging Time	California Standards*		National Standards*	
		Concentration*	Attainment Status	Primary	Attainment Status
Nitrogen Dioxide (NO ₂)	AAM	0.030 ppm	Attainment	53 ppb	Attainment/ Unclassified
	1-hour	0.18 ppm		100 ppb	
Sulfur Dioxide (SO ₂)	AAM	–	Attainment	--	Attainment/ Unclassified
	24-hour	0.04 ppm		--	
	3-hour	–		0.5 ppm	
	1-hour	0.25 ppm		75 ppb	
Lead (Pb)	30-day Average	1.5 µg/m ³	Attainment	–	No Designation/ Classification
	Calendar Quarter	–		--	
	Rolling 3-Month Average	–		0.15 µg/m ³	
Sulfates (SO ₄)	24-hour	25 µg/m ³	Attainment	No Federal Standards	
Hydrogen Sulfide (H ₂ S)	1-hour	0.03 ppm (42 µg/m ³)	Unclassified		
Vinyl Chloride (C ₂ H ₃ Cl)	24-hour	0.01 ppm (26 µg/m ³)	Attainment		
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: <https://ww3.arb.ca.gov/research/aqgs/aqgs2.pdf>

** No Federal 1-hour standard. Reclassified extreme nonattainment for the Federal 8-hour standard [date].

***Secondary Standard

Source: CARB ; SIVAPCD , accessed May 2022

4.3.2 Impact Analysis

4.3.3 Short-Term Construction-Generated Emissions

Short-term construction emissions associated with the Project were calculated using the California Emissions Estimator Modeling (software) CalEEmod, Version 2016.3.2. These output files can be found in [Appendix A](#). The sections below detail the methodology of the air quality and greenhouse gas emissions analysis and its conclusions.

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.

4.3.4 Long-Term Operational Emissions

Long-term operational emissions associated with the Project are estimated to be minimal in nature, and similar to existing conditions. Therefore, operational emissions were not analyzed.

4.3.5 Thresholds of Significance

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

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

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

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

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

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

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

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

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

Less than Significant Impact. Estimated construction-generated emissions are summarized in **Table 4-6** below and will be less than the SJVAPCD established thresholds of significance. Construction-related air quality emissions are below the SJVAPCD Rule 9510 threshold to reduce construction emissions. Impacts will be less than significant.

Table 4-6. Unmitigated Short-Term Construction-Generated Emissions of Criteria Air Pollutants

Source	Annual Emissions (Tons/Year) ⁽¹⁾					
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}	SO _x
2022	0.09	0.94	0.79	0.61	0.35	<0.01
2023	0.16	1.61	1.66	0.09	0.07	<0.01
Maximum	0.16	1.61	1.66	0.61	0.35	<0.01
SJVAPCD Significance Thresholds:	10	10	100	15	15	27
Exceed SJVAPCD Thresholds?	No	No	No	No	No	No

1. Refer to **Appendix A** for modeling results and assumptions. Totals may not sum due to rounding.

- c) Expose sensitive receptors to substantial pollutant concentrations?

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 eight months, which would constitute approximately 0.95 percent of the typical 70-year exposure period. The Project’s pipeline trenching phase is estimated to be approximately 120 days and has the longest duration of any phase. Construction activity areas during this phase would be constantly changing as progress is made on pipeline and meter installation; thus, sensitive receptors would not be exposed to TACs for an extended amount of time. For these reasons 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).

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

Less than Significant Impact. 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 improvements at a well site, installation of pipelines to deliver clean drinking water to residences, the installation of water meters, and the addition of cathodic protection to the existing water storage tank. None of these activities would result

in the emission of odorous compounds. The operational phase of the Project would not emit any odorous compounds. Impacts would be less than significant.

4.3.6 Federal Cross-Cutting Topic

Clean Air Act (CAA)

Under the federal CAA, federal actions conducted in air basins that are not in attainment with federal air pollutant standards (such as ozone and PM_{2.5} in the SJVAB) must demonstrate conformity with the SIP. Conformity to a SIP is defined in the federal CAA as meaning conformity to a SIP's purpose of eliminating or reducing the severity and number of violations of the national standards and achieving an expeditious attainment of such standards. The SJVAPCD has published Regulation IX, Rule 9110 (referred as the General Conformity Rule) that indicates how most federal agencies can make such a determination.⁴

The SJVAPCD specifies that a project is conforming to the applicable attainment or maintenance plan if it:

- complies with all applicable SJVAPCD rules and regulations,
- complies with all applicable control measures from the applicable plans, and
- is consistent with the growth forecast in the applicable plans.

The SJVAPCD does not require a detailed quantification of construction emissions unless the project's indirect source emissions are expected to increase pollutant emissions of ROG or NO_x in excess of 10 tons per year. Because proposed Project construction would not exceed this threshold, the proposed Project would comply with the conformity criteria.

⁴ (SJVAPCD 2022)

4.4 BIOLOGICAL RESOURCES

Table 4-7: 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.4.1 Baseline Conditions

A reconnaissance-level field survey of the Project’s Area of Potential Effect (APE) (see [Figure 4-2](#)) and surrounding areas was conducted on March 16, 2022. The full written report of biological findings is contained in [Appendix B](#). The APE for biological purposes is 318 acres with a 50-foot buffer surrounding the Project. The field survey consisted of walking and driving the APE while identifying and noting land uses, biological habitats and communities, and plant and animal species encountered. Furthermore, the APE was assessed for suitable habitats of various wildlife species.

According to the California Natural Diversity Database (CNDDDB), there are no recorded observations of natural communities of special concern with potential to occur within the Project area or vicinity.

Furthermore, no natural communities of special concern were observed onsite during the field survey. Photographs of the Project areas and vicinity are available in [Appendix B](#) at the end of this document.

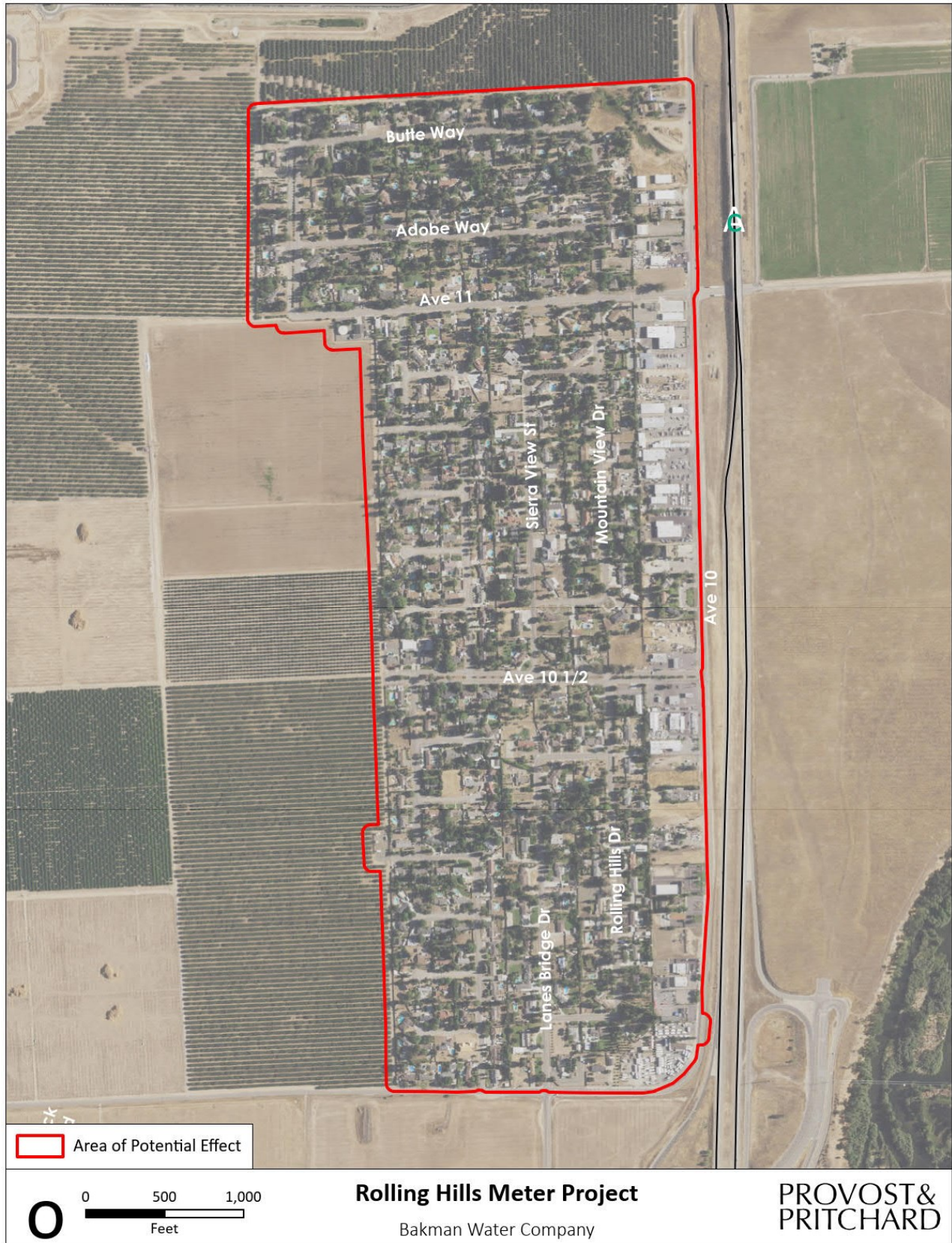


Figure 4-2: APE Map

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 California Department of Fish and Wildlife (CDFW) and the United States Fish and Wildlife Services (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 California Native Plant Society (CNPS) has its list of native plants considered rare, threatened, or endangered. Collectively these plants and animals are referred to as “special status species.” The field survey was conducted outside of the blooming season for most plants.

A thorough search of the CNDDDB for published accounts of special status plant and animal species was conducted for the *Lanes Bridge* 7.5-minute quadrangles that contain the APE, and for the 8 surrounding quadrangles: *Daulton*, *Little Table Mountain*, *Millerton Lake West*, *Friant*, *Clovis*, *Fresno North*, *Herndon*, and *Gregg*. These species, and their potential to occur within the APE, are listed in [Table 4-8](#) and [Table 4-9](#) on the following pages. Raw data obtained from CNDDDB 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 as field observations were used to determine if any special status species are known to be within the APE.

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

Species	Status	Habitat	Occurrence within Project Site
American badger (<i>Taxidea taxus</i>)	CSC	Grasslands, savannas, and mountain meadows near timberline are preferred. Most abundant in drier open spaces of shrub and grassland. Burrows in soil.	Unlikely. Suitable burrows were absent during the biological survey. The disturbed habitats and soils onsite are not suitable for this species. Frequent human disturbance along with domestic dogs and cats in the area would deter this species from residing within the APE. The nearest observation of this species was recorded in 2017 within grassland habitat approximately 6 miles from the APE.
Blunt-nosed leopard lizard (<i>Gambelia sila</i>)	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 highly disturbed habitats of the APE and surrounding lands are largely unsuitable for this species. This species was not observed during the biological field survey and there are no recorded observations of this species on CNDDDB within the regional vicinity of the Project.
Burrowing Owl (<i>Athene cunicularia</i>)	CSC	Resides in open, dry annual or perennial grasslands, deserts, and scrublands with low growing vegetation. Nests	Unlikely. The presence of large trees and raptor perches makes this site unsuitable for burrowing owls. Ground squirrels and suitable burrows were scarce, and owl

Species	Status	Habitat	Occurrence within Project Site
		underground in existing burrows created by mammals, most often ground squirrels.	signs were not observed during the field survey. The nearest observation of this species was recorded in 2000 approximately 2 miles southeast of the Project.
California glossy snake (<i>Arizona elegans occidentalis</i>)	CSC	Inhabits arid scrub, rocky washes, grasslands, and chaparral. Prefers open areas with loose soil for easy burrowing.	Absent. The disturbed habitats of the APE and surrounding lands are unsuitable for this species. Furthermore, the APE is outside of the known range of this species. The only regional recorded observation of this species corresponds to a historic collection (1893) from an unknown location in the vicinity of Fresno.
California Horned Lark (<i>Eremophila alpestris actia</i>)	CWL	Frequents open habitats, including short-grass prairie, mountain meadows, open coastal plains, fallow grain fields, and alkali flats. Found primarily in coastal regions, including Sonoma and San Diego Counties.	Unlikely. The highly disturbed habitats of the APE and surrounding lands are largely unsuitable for this species. There is marginal foraging habitat south of Avenue 10, but the lack of suitable trees makes it not optimal for this species. The only regional observations of this species occurred 30 years ago immediately to the southwest of the APE.
California red-legged frog (<i>Rana draytonii</i>)	FT, CSC	Inhabits perennial rivers, creeks, and stock ponds with vegetative cover within the Coast Range and northern Sierra foothills.	Possible. Vernal pools are absent from the APE, but there is a wetted area within the APE that could provide breeding habitat for the species. There is also an open grassland used for grazing to the east of the APE which provides suitable upland habitat. This species was not observed during the biological field survey and there are no recorded observations of this species on CNDDDB within the regional vicinity of the Project.
California tiger salamander (<i>Ambystoma californiense</i>)	FT, CT, CWL	Requires vernal pools or seasonal ponds for breeding and small mammal burrows for aestivation. Generally found in grassland and oak savannah plant communities in central California from sea level to 1500 feet in elevation.	Possible. Vernal pools are absent from the APE, but there is a wetted area within the APE that could provide breeding habitat for the species. There is also an open grassland used for grazing to the east of the APE which provides suitable upland habitat. The nearest observation of this species corresponds to a location 0.5 miles east of the APE in 2001.
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	CSC	Found in grasslands, coniferous forests, woodlands, and chaparral, primarily in open areas with patches of loose, sandy soil and low-lying vegetation in valleys, foothills, and semi-arid mountains. Frequently found near ant hills and along dirt roads in lowlands along sandy washes with scattered shrubs.	Unlikely. The disturbed habitats of the APE and surrounding lands are unsuitable for this species. The nearest recorded observation of this species corresponds to a historic (1893) collection 3 miles southwest of the APE.
Conservancy fairy shrimp (<i>Branchinecta conservatio</i>)	FE	Endemic to the grasslands of the northern two-thirds of the Central Valley. Found in large, turbid pools.	Unlikely. Vernal pools are absent from the APE, but there is a wetted area within the APE that could provide breeding habitat for the species. This species was not observed during the biological field survey and there are no recorded observations of

Species	Status	Habitat	Occurrence within Project Site
			this species on CNDDDB within the regional vicinity of the Project.
Crotch bumble bee (<i>Bombus crotchii</i>)	CCE	Occurs throughout coastal California, as well as east to the Sierra-Cascade crest, and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Possible. Foraging and nesting habitat could be found within the APE and surrounding lands. This species was not observed during the biological field survey and the most recent recorded observation of this species was approximately 11 miles northeast of the APE in 1982.
Delta smelt (<i>Hypomesus transpacificus</i>)	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. The APE is outside the known range for this species. Aquatic habitat is absent within the APE and the Canals/Ditches that flow past the APEs do not flow perennially and do not connect to the Delta. There are no recorded observations of this species on CNDDDB within the regional vicinity of the Project. This species is currently only found in the Sacramento-San Joaquin River Delta, upstream through Contra Costa, Sacramento, San Joaquin, and Solano Counties.
Double-crested Cormorant (<i>Phalacrocorax auratus</i>)	CWL	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.	Absent. There is no suitable habitat for this species within the APE or surrounding areas. The only regional observation was recorded in 2012 approximately 8 miles the APE.
Foothill yellow-legged frog (<i>Rana boylei</i>)	CE, CSC	Frequents rocky streams and rivers with rocky substrate and open, sunny banks in forests, chaparral, and woodlands. Occasionally found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools.	Absent. The APE is not at the elevation required for the species. The nearest regional observation was recorded in 1953 approximately 14 miles southwest of the APE.
Fresno kangaroo rat (<i>Dipodomys nitratooides exilis</i>)	FE, CE	Inhabits open grassland habitats with chenopod scrub vegetation. Habitat conditions include friable, bare alkaline clay-based soils which are seasonally inundated. There are no known populations within this species historical range in Merced, Madera, and Fresno counties. The last recorded observation of a Fresno kangaroo rat in Fresno County was in 1992 at the Alkali Sink Ecological Reserve.	Absent. The highly disturbed habitats of the APE and surrounding lands are unsuitable for this species. The only recorded observation of this species was found within the Alkali Sink Ecological Reserve in 1992, approximately 30 miles southwest of the APE.
Giant gartersnake (<i>Thamnophis gigas</i>)	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.	Possible. There is a wetted area within the APE that provides suitable habitat for this species. There is also an open grassland used for grazing to the east of the APE which provides suitable upland habitat. This species was not observed during the biological field survey and there are no recorded observations of this species on CNDDDB within the regional vicinity of the Project.

Species	Status	Habitat	Occurrence within Project Site
Hardhead (<i>Mylopharodon conocephalus</i>)	CSC	Occurs in low- to mid-elevation streams in the Sacramento-San Joaquin drainage. Clear, deep pools with sand-gravel-boulder bottoms and slow-moving water is required. This species is often sympatric with Sacramento pikeminnow and Sacramento sucker. Hardhead are typically absent from streams occupied by centrarchids and from heavily altered habitats.	Absent. Suitable habitat is absent from the APE. The nearest observation was recorded in 1982 approximately 0.2 miles southeast of the APE.
Least Bell's Vireo (<i>Vireo bellii pusillus</i>)	FE, CE	This migratory species breeds in southern California. Breeding habitat consists of dense, low, shrubby, riparian vegetation in the vicinity of water or dry river bottoms. By the early 1980s, this species was extirpated from most of its historic range in California, including the Central Valley. This species now occurs exclusively along the coast of southern California (USFWS, 1998).	Absent. The APE is outside of the known current range of this species. The only regional recorded observation is from a historical record dated 1912 approximately 6 miles southeast of the APE.
Monarch Butterfly (<i>Danaus plexippus</i>)	FC	Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby. Larval host plants consist of milkweeds (<i>Asclepias</i> sp.). Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico.	Possible. Foraging habitat is present within the APE and surrounding lands. This species was not observed during the biological field survey, but the most recent observation of this species was approximately 4 miles northeast of the APE in 2022..
Northern California legless lizard (<i>Anniella pulchra</i>)	CSC	Found primarily underground, burrowing in loose, sandy soil. Forages in loose soil and leaf litter during the day. Occasionally observed on the surface at dusk and night.	Absent. Suitable habitat is absent from the APE. The only regional recorded observation is from 1880 approximately 3 miles away from the APE.
Pallid bat (<i>Antrozous pallidus</i>)	CSC	Found in grasslands, chaparral, and woodlands, where it feeds on ground- and vegetation-dwelling arthropods, and occasionally takes insects in flight. Prefers to roost in rock crevices, but may also use tree cavities, caves, bridges, and other man-made structures.	Unlikely. Ideal roosting habitat was absent from the APE. Individuals could potentially roost in trees or crevices of structures in the vicinity, although frequent disturbance in this region would make this unlikely. At most, this species could forage on flying arthropods over the adjacent orchard or canal during periods of inundation. The only recorded regional occurrence of this species was documented in 1979 approximately 12 miles northeast of the APE.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FE, CT	Underground dens with multiple entrances in alkali sink, valley grassland, and woodland in valleys and adjacent foothills.	Unlikely. The highly disturbed habitats of the APE and fragmentation of the surrounding lands are unsuitable for this species. The only regional recorded observation of the species occurred in 1992 approximately 6 miles northwest of the APE.
Spotted bat (<i>Euderma maculatum</i>)	CSC	Roosts in cliffs, rock crevices, and caves. Forages over water and along washes. Feeds almost exclusively on moths.	Unlikely. The APE is outside of the known current distribution range of this species. Suitable roosting habitat is absent from the APE, and foraging habitat is marginal. The nearest observation of the species

Species	Status	Habitat	Occurrence within Project Site
			was recorded in 1970 approximately 7 miles from the APE.
Swainson's Hawk (<i>Buteo swainsoni</i>)	CT	Nests in large trees in open areas adjacent to grasslands, grain or alfalfa fields, or livestock pastures suitable for supporting rodent populations.	Possible. There are large trees in the APE that may provide suitable nesting habitat for the species; however, none were observed during the survey. The nearest recorded observation is from 2013 approximately 4 miles north of the APE. The most recent recorded observation is from 2017 approximately 6 miles north-northwest of the APE.
Tricolored Blackbird (<i>Agelaius tricolor</i>)	CT, CSC	Nests colonially near fresh water in dense cattails or tules, or in thickets of riparian shrubs. Forages in grassland and cropland. Large colonies are often found on dairy farm forage fields.	Possible. This species could potentially nest within the APE near the wetted area and could forage within the APE and in the neighboring cropland area. The nearest recorded observation is from 1974 approximately 3 miles southwest of the APE. The most recent recorded observation is from 2011 approximately 12 miles north-northwest of the APE. CNDDDB classifies this species as possibly extirpated from the areas where they were previously recorded.
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT	Lives in mature elderberry shrubs of the Central Valley and foothills. Adults are active March to June.	Unlikely. There were no elderberry species observed within the APE. The nearest and most recent recorded observation is from 1992 approximately 0.2 miles south of the APE. The only other recorded observation is from 1989 approximately 7 miles southwest of the APE.
Vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	FT	Occupies vernal pools, clear to tea-colored water, in grass or mud-bottomed swales, and basalt depression pools.	Unlikely. There are no vernal pools present within the APE or surrounding habitat. The nearest recorded observation is from 2009 approximately 0.2 miles south of the APE. The most recent recorded observation is from 2017 approximately 7 miles north-northwest of the APE.
Western mastiff bat (<i>Eumops perotis californicus</i>)	CSC	Found in open, arid to semi-arid habitats, including dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas, where it feeds on insects in flight. Roosts most commonly in crevices in cliff faces but may also use high buildings and tunnels.	Unlikely. Nesting habitat within the APE and surrounding areas is absent. At most this species could fly through or forage within the area. The nearest and most recent recorded observation is from 1994 approximately 7 miles north of the APE.
Western pond turtle (<i>Emys marmorata</i>)	CSC	An aquatic turtle of ponds, marshes, slow-moving rivers, streams, and irrigation ditches with riparian vegetation. Requires adequate basking sites and sandy banks or grassy open fields to deposit eggs.	Possible. A wetted area was identified in the APE that may provide suitable habitat for this species. However, the surrounding area is subject to high levels of disturbance which may make it unsuitable habitat for this species. The nearest recorded observation is from 2004 approximately 7 miles north-northwest of the APE. The most recent recorded

Species	Status	Habitat	Occurrence within Project Site
Western spadefoot (<i>Spea hammondi</i>)	CSC	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Vernal pools or temporary wetlands, lasting a minimum of three weeks, which do not contain bullfrogs, fish, or crayfish are necessary for breeding.	observation is from 2016 approximately 8 miles southeast of the APE. Possible. A wetted area was identified in the APE that may provide suitable habitat for this species. However, the surrounding area is subject to high levels of disturbance which may make it unsuitable habitat for this species. The nearest recorded observation is from 2016 approximately 0.2 miles northwest of the APE. The most recent recorded observation is from 2021 approximately 11 miles northwest of the APE.
Western Yellow-billed Cuckoo (<i>Coccyzus americanus occidentalis</i>)	FT, CE	Suitable nesting habitat in California includes dense riparian willow-cottonwood and mesquite habitats along a perennial river. Once a common breeding species in riparian habitats of lowland California, this species currently breeds consistently in only two locations in the State: along the Sacramento and South Fork Kern Rivers.	Absent. This APE is not within or nearby the known location where this species breeds. No willow-cottonwood trees were seen within the APE or surrounding areas. The nearest recorded observation of this species is from 1883 which occurred within the APE. The most recent recorded observation is from 1902 approximately 12 miles southwest of the APE and is presumed to be extirpated.

EXPLANATION OF OCCURRENCE DESIGNATIONS AND STATUS CODES

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	CSC	California Species of Concern
		CFP	California Fully Protected
		CWL	California Watch List
		CCE	California Endangered (Candidate)
		CR	California Rare

CNPS LISTING

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

Table 4-9: List of Special Status Plants with Potential to Occur Onsite and/or in the Vicinity

Species	Status	Habitat	Occurrence within Project Site
California jewelflower (<i>Caulanthus californicus</i>)	FE, CE, CNPS 1B	Found in the San Joaquin Valley and Western Transverse Ranges in sandy soils. Occurs on flats and slopes, generally in non-alkaline grassland at elevations between 230 feet and 6100 feet. Blooms February–April.	Absent. 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 is from 1980 approximately 3 miles south of the APE and is presumed to be extirpated.
California satintail (<i>Imperata brevifolia</i>)	CNPS 2B	Although this facultative species is equally likely to occur in wetlands and non-wetlands, it is often found in wet springs, meadows, streambanks, and floodplains at elevations below 1600 feet. Blooms September – May.	Possible. A wetted area was identified in the APE that may provide suitable habitat for this species. The only recorded observation is from 1893 approximately 3 miles south of the APE.
Dwarf downingia (<i>Downingia pusilla</i>)	CNPS 2B	Found in vernal pools in valley and foothill grassland communities at elevations below 1600 feet. Blooms March – May.	Possible. A wetted area was identified in the APE that may provide suitable habitat for this species. The only recorded observation of this species is from 1979 approximately 4 miles northwest of the APE.
Greene’s tuctoria (<i>Tuctoria greenei</i>)	FE, CR, CNPS 1B	Found in the San Joaquin Valley and other parts of California in vernal pools within valley grassland, wetland, and riparian communities at elevations below 3500 feet. Blooms May – September.	Absent. The only recorded observation of this species is from 1937 approximately 8 miles southwest of the APE and is presumed to be extirpated.
Hairy Orcutt grass (<i>Orcuttia pilosa</i>)	FE, CE, CNPS 1B	Found in vernal pools in valley grassland, wetland, and riparian communities at elevations below 650 feet. Blooms May – September.	Possible. A wetted area was identified in the APE that may provide suitable habitat for this species. Critical habitat for this species is across Highway 41 to the east of the APE. The most recent recorded observation of this species is from 2017 approximately 11 miles northwest of the APE. The nearest recorded observation is from 1995 approximately 3 miles north of the APE.
Hartweg’s golden sunburst (<i>Pseudobahia bahifolia</i>)	FE, CE, CNPS 1B	Found in valley and foothill grassland and cismontane woodland communities in clay soils that are often acidic. Occurs predominantly on northern slopes, but also along shady creeks and near vernal pools at elevations between 300 feet and 650 feet. Blooms March – May.	Absent. Although the elevation of the APE meets the habitat requirements for this species, the required soils are absent in the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The nearest recorded observation is from 2009 approximately 6 miles northwest of the APE. The most recent recorded observation is from 2010 approximately 8 miles north-northwest of the APE.
Hoover’s calycadenia (<i>Calycadenia hooveri</i>)	CNPS 1B	Found in valley and foothill grassland and cismontane woodland communities on exposed, rocky, barren soil at elevations between 300 feet and 1300 feet. Blooms June – September.	Absent. Cismontane woodland communities were not seen within or nearby the APE. Suitable habitat required by this species is absent from the APE and surrounding lands. The only recorded observation is from 2007 approximately 3 miles northwest of the APE.

Species	Status	Habitat	Occurrence within Project Site
Hoover's cryptantha (<i>Cryptantha hooveri</i>)	CNPS 1A	Presumed extirpated in California. Found in valley and foothill grassland and inland dunes in coarse sand at elevations below 250 feet. Blooms March – May.	Absent. Suitable habitat required by this species is absent from the APE and surrounding lands. The only recorded observation is from 1935 approximately 11 miles north of the APE and is presumed to be extirpated.
Madera leptosiphon (<i>Leptosiphon serrulatus</i>)	CNPS 1B	Found in openings in foothill woodland, often yellow-pine forest, and chaparral at elevations between 1000 feet and 4300 feet. Blooms April – May.	Absent. Suitable habitat required by this species is absent from the APE and surrounding lands. The elevation requirement of this species is not present within the APE. The nearest recorded observation is from 1922 approximately 4 miles south of the APE. The most recent recorded observation of this species is from 1967 approximately 9 miles northeast of the APE.
Munz's tidy-tips (<i>Layia munzii</i>)	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. Suitable habitat required by this species is absent from the APE and surrounding lands. The only recorded observation of this species is from 1937 approximately 9 miles northwest of the APE.
Orange lupine (<i>Lupinus citrinus</i> var. <i>citrinus</i>)	CNPS 1B	Found in chaparral, cismontane woodland, and lower montane coniferous forest in rocky, decomposed granitic outcrops on flat to rolling terrain. Typically found in open areas, at elevations between 1250 feet and 5800 feet. Blooms April – July.	Absent. The elevation requirement of this species is not present within the APE. Required soils are absent in the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The only recorded observation is from 2003 approximately 12 miles north of the APE.
Pincushion navaretia (<i>Navarretia myersii</i> spp. <i>myersii</i>)	CNPS 1B	Found in vernal pools in clay soils at elevations between 65-295 feet. Often associated with non-native grasslands. Blooms in May.	Possible. A wetted area was identified in the APE that may provide suitable habitat for this species. The only recorded observation of this species is from 2016 approximately 4 miles north of the APE.
San Joaquin Valley Orcutt grass (<i>Orcuttia inaequalis</i>)	FT, CE, CNPS 1B	Found in the eastern San Joaquin Valley and the Sierra Nevada foothills in vernal pools within valley grassland, freshwater wetland, and wetland-riparian communities at elevations below 2600 feet. Blooms April – September.	Possible. A wetted area was identified in the APE that may provide suitable habitat for this species. The nearest and most recent recorded observation is from 2017 approximately 2 miles north of the APE.
Sanford's arrowhead (<i>Sagittaria sanfordii</i>)	CNPS 1B	Found in the San Joaquin Valley and other parts of California in freshwater-marsh, primarily ponds and ditches, at elevations below 1000 feet. Blooms May–October.	Possible. A wetted area was identified in the APE that may provide suitable habitat for this species. The most recent recorded observation of this species is from 2014 approximately 7 miles northeast of the APE. The nearest recorded observation of this species is from 1954 approximately 2 miles south of the APE.
Shining navarretia (<i>Navarretia nigelliformis</i> ssp. <i>radians</i>)	CNPS 1B	Found in cismontane woodland and valley and foothill grassland communities, sometimes in vernal pools. Occurs at elevations between 200 feet and 3200 feet. Blooms May – July.	Absent. Cismontane woodland communities were not seen within or nearby the APE. Suitable habitat required by this species is absent from the APE and surrounding lands. The only recorded observation is from 1938 approximately 16 miles northeast of the APE.

Species	Status	Habitat	Occurrence within Project Site
Spiny-sepaled button-celery (<i>Eryngium spinosepalum</i>)	CNPS 1B	Found in the Sierra Nevada Foothills and the San Joaquin Valley. Occurs in vernal pools, swales, and roadside ditches. Often associated with clay soils in vernal pools within grassland communities. Occurs at elevations between 50 feet and 4160 feet. Blooms April–July.	Possible. A wetted area was identified in the APE that may provide suitable habitat for this species. The most recent recorded observation of this species is from September 2010 approximately 9 miles north of the APE. The nearest recorded observation is June 2010 approximately 3 miles north of the APE.
Succulent owl’s-clover (<i>Castilleja campestris</i> ssp. <i>succulenta</i>)	FT, CE, CNPS 1B	Found in vernal pools, often in acidic soils at elevations below 2500 feet. Blooms April – July.	Possible. A wetted area was identified in the APE that may provide suitable habitat for this species. Critical habitat for this species is across Highway 41 to the east of the APE. Vernal pool habitat and required soils are absent from the APE and surrounding areas are frequently cultivated agricultural lands that are unsuitable for this species. The most recent recorded observation of this species is from 2019 approximately 3 miles north of the APE. The nearest recorded observation of this species is from 1984 approximately 2 miles south of the APE.

EXPLANATION OF OCCURRENCE DESIGNATIONS AND STATUS CODES

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	CSC	California Species of Concern
		CFP	California Fully Protected
		CWL	California Watch List
		CCE	California Endangered (Candidate)
		CR	California Rare

CNPS LISTING

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

4.4.2 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. 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 California Horned Lark, California red-legged frog, California tiger salamander, Crotch bumble bee, giant garter snake, Monarch butterfly, Swainson’s Hawk, Tricolored Blackbird, western pond turtle, western spadefoot, and special status plant species. Discussion and corresponding mitigation measures are provided below.

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 a variety of ground and tree nesting avian species. It is anticipated that during nesting bird season, numerous species of birds could use the APE for nesting. California Horned Lark, Tricolored Blackbird, and Swainson’s Hawks were deemed the only special status bird species possible to occur within the APE. Trees near the APE have the potential to host a multitude of nesting birds, and species such as Killdeer are known to build nests on bare ground or compacted dirt roads. Canada geese were observed during the survey, these birds are known to build nests on the ground near sources of water and in grasslands. Construction activities could disturb birds nesting within or adjacent to work areas, resulting in nest abandonment. 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. 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. Birds nesting within the APE during construction 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 are considered to be in violation of State and federal laws, and such impacts are considered potentially significant under CEQA.

Implementation of Mitigation Measures **BIO-1**, **BIO-2**, **BIO-3**, and **BIO-4** 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.

Project-Related Mortality and/or Disturbance of California Tiger Salamander

Project construction activities will result in temporary disturbance to an area that California tiger salamanders could potentially be living, breeding, or migrating through, and thereby could result in injury, mortality, displacement, disturbance, or inhibition of the movement of this species.

Mitigation measures are warranted and are identified in **Section 4.4.4** below. With implementation of mitigation measures **BIO-5**, **BIO-6**, and **BIO-7**, impacts to California tiger salamanders during construction would be less than significant.

Project-Related Mortality and/or Disturbance of Western Pond Turtle

Western Pond Turtle (WPT) habitat features for nesting, overwintering, dispersal, and basking include aquatic and terrestrial habitats such as ponded areas, irrigation canals, riparian, and upland habitat. WPT are known to nest in the spring or early summer within 350-feet of a water body, although nest sites as far away as 500 meters have also been reported. Noise, vegetation removal, movement of workers, construction, and ground disturbance as a result of Project activities have the potential to significantly impact WPT populations. Without appropriate avoidance and minimization measures for WPT, potentially significant impacts associated with Project activities could include nest reduction, inadvertent entrapment, reduced reproductive success, reduction in health or vigor of eggs and/or young, and direct mortality.

Mitigation measures are warranted and are identified in **Section 4.4.4** below. With implementation of mitigation measures **BIO-8, BIO-9, and BIO-10**, impacts to Western Pond Turtles during construction would be less than significant.

Project-Related Mortality and/or Disturbance of Giant Gartersnake

Habitats within the APE and surrounding area were determined to be suitable for giant garter snake. Construction activities occurring within occupied habitat could result in injury, mortality, displacement, disturbance, or inhibition of the movement of this species.

Mitigation measures are warranted and are identified in **Section 4.4.4** below. With implementation of mitigation measures **BIO-11, BIO-12, and BIO-13**, impacts to giant garter snake during construction would be less than significant.

Project-Related Mortality and/or Disturbance of Monarch Butterfly and Crotch Bumble Bee

Habitats within the APE and surrounding area were determined to be suitable for Monarch butterfly. Construction activities occurring within occupied habitat could result in injury, mortality, displacement, disturbance, or inhibition of the movement of this species.

Mitigation measures are warranted and are identified in **Section 4.4.4** below. With implementation of mitigation measures **BIO-14, BIO-15, and BIO-16**, impacts to Monarch butterfly and Crotch bumble bee during construction would be less than significant.

Project-Related Mortality and/or Disturbance of Western Spadefoot and California Red-legged Frog

Habitats within the action area and surrounding area were determined to be suitable for western spadefoot and California red-legged frogs. Construction activities occurring within occupied habitat could result in injury, mortality, displacement, disturbance, or inhibition of the movement of this species.

Mitigation measures are warranted and are identified in **Section 4.4.4** below. With implementation of mitigation measures **BIO-17, BIO-18, and BIO-19**, impacts to western spadefoot and California red-legged frog during construction would be less than significant.

Project-Related Mortality and/or Disturbance to Special Status Plant Species

The following special status plant species were identified to potentially occur within or adjacent to the APE: California satintail (Blooms Sept-May), dwarf downingia (Blooms March-May), hairy Orcutt grass (Blooms May-Sept), pincushion navarettia (Blooms May), San Joaquin Valley Orcutt grass (Blooms April-Sept),

Sanford's arrowhead (Blooms May-Oct), spiny-sepaled button-celery (Blooms April-July), and succulent owl's-clover (Blooms April-July). The survey of the APE was conducted outside of the blooming season for most of these plants and for suitable habitat. It is recommended a more detailed survey be conducted within the blooming season. Projects that adversely affect special status plants or result in the mortality of special status plants are considered to be in violation of State and federal laws, and such impacts are considered potentially significant under CEQA.

Mitigation measures are warranted and are identified in **Section 4.4.4** below. With implementation of mitigation measures **BIO-20, BIO-21, and BIO-22**, impacts to special status plant species during construction would be less than significant.

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 CNDDDB-designated "natural communities of special concern" recorded within the APE or surrounding lands. The APE consists of a rural residential neighborhood, and no riparian habitat is present. The APE is dominated by ornamental landscape and non-native vegetation. USFWS designated Critical Habitat is located across Highway 41 to the east of the APE, but will not be affected by the Project. There will 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?

Less than Significant Impact. A wetted area was identified within the APE at the time of the biological survey. No work will be occurring within or adjacent to the wetted area. It is recommended that exclusion fencing is installed to provide avoidance in this area. The nearest water source is the San Joaquin River located east of the APE and would be considered waters of the United States and waters of the State. The San Joaquin River is a natural water feature and is regulated by the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) as a jurisdictional water. The Project would not affect the San Joaquin River.

Since construction would involve ground disturbance over an area greater than one acre, the Project will be required to obtain a Construction General Permit under the Construction Storm Water Program administered by the RWQCB. A prerequisite for this permit is the development of a Storm Water Pollution Prevention Plan (SWPPP) to ensure construction activities do not adversely affect water quality. Any impacts to wetlands would be less than significant.

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?

No Impact. The residential/ruderal habitat of the APE and surrounding areas consist of fragmented spaces that are not likely to function as wildlife movement corridors. While the Project site and surrounding lands are very open and expansive, the Project is located in a region often disturbed by human activities and it is unlikely that this area would be utilized by wildlife species for movement. Therefore, construction would have no impact on the low potential of animal dispersion in the area. Therefore, the Project would have no impact on wildlife movement corridors, and no mitigation measures are warranted.

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 is consistent with the goals and policies of the Madera County General Plan. Designated critical habitat for two plant species; hairy Orcutt grass and succulent owl's-clover can be found across Highway 41, to the east of the APE. Critical habitat for these species does not occur within the APE and most of the habitat within the APE is unsuitable for these species. A wetted area was identified in the APE that may provide suitable habitat for some species, although individuals were not observed during the field reconnaissance survey. There will be no conflicts with any local policies or ordinances, and mitigation measures are not warranted. There would be no impact.

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. The Project is consistent with the goals and policies of the Madera County General Plan and there are no Habitat Conservation Plans covering the APE. There would be no impact.

4.4.3 Relevant Goals, Policies, and Laws

Federal Endangered Species Act

Regulations in the federal Endangered Species Act of 1973 and subsequent amendments govern the conservation of endangered and threatened species and the ecosystems on which they depend. USFWS and the National Marine Fisheries Service (NMFS) oversee the act. USFWS has jurisdiction over plants, wildlife, and resident fish, and NMFS has jurisdiction over anadromous fish, marine fish, and mammals.

Section 7 requires federal agencies to consult with USFWS and NMFS if they determine that a proposed project may affect a listed species, destroy, or adversely modify designated critical habitat. Under Section 7, the federal lead agency must obtain incidental take authorization or a letter of concurrence, stating that the project is not likely to adversely affect federally listed species. Section 7 requirements do not apply to nonfederal actions. Because the United States Environmental Protection Agency (USEPA) is the source of State Revolving Fund (SRF) monies that may be distributed to Bakman Water Company, funding through the SRF program may be a federal action covered by Section 7.

Appendix B presents a Biological Evaluation intended to provide the basis for compliance with Section 7 of the Endangered Species Act.

Section 9 prohibits take of any fish or wildlife species listed as endangered, including the destruction of habitat that prevents the species' recovery. "Take" is defined as any action or attempt to hunt, harm, harass, pursue, shoot, wound, capture, kill, trap, or collect a species. Section 9 prohibitions also apply to threatened species unless a special rule governing take was defined at the time the species became listed.

The take prohibition in Section 9 applies only to fish and wildlife species. However, Section 9 also prohibits the unlawful removal and possession, or malicious damage or destruction, of any endangered plant from federal land. Section 9 prohibits acts to remove, cut, dig up, damage, or destroy an endangered plant species in non-federal areas in knowing violation of any state law or in the course of criminal trespass. Candidate species and species that are proposed for or under petition for listing receive no protection under Section 9.

See discussion under Biological Resources Impact Analysis checklist item a.

Fish and Wildlife Conservation Act

The Fish and Wildlife Conservation Act (Act), approved September 29, 1980, declares that fish and wildlife are of ecological, educational, esthetic, cultural, recreational, economic, and scientific value to the Nation. The Act acknowledges that historically, fish and wildlife conservation programs have focused on more recreationally and commercially important species within any particular ecosystem, without provisions for the conservation and management of nongame fish and wildlife. The purposes of this Act are to encourage all federal departments and agencies to utilize their statutory and administrative authority, to the maximum extent practicable and consistent with each agency's statutory responsibilities and to conserve and to promote conservation of non-game fish and wildlife and their habitats. The Act authorizes financial and technical assistance to the States for the development, revision, and implementation of conservation plans and programs for nongame fish and wildlife. The Act defines "nongame fish and wildlife" as wild vertebrate animals in an unconfined state, that are not ordinarily taken for sport, fur or food, not listed as endangered or threatened species, and not marine mammals within the meaning of the Marine Mammal Protection Act. The original Act authorized \$5 million for each of Fiscal Years 1982 through 1985, for grants for development and implementation of comprehensive State nongame fish and wildlife plans and for administration of the Act.

See discussions under Biological Resources Impact Analysis checklist items a, b, and d above.

Migratory Bird Treaty Act

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

Magnuson-Stevens Fishery Conservation and Management Act

The Magnuson-Stevens Fishery Conservation and Management Act, as amended (16 USC 180 I), requires that Essential Fish Habitat (EFH) be identified and described in federal fishery management plans. Federal agencies must consult with NMFS on any activity that they fund, permit, or carry out that may adversely affect EFH. The EFH regulations require that federal agencies obligated to consult on EFH also provide NMFS with a written assessment of the effects of any action on EFH (50 CFR 600.920). NMFS is required to provide EFH conservation and enhancement recommendations to federal agencies. The statute also requires federal agencies receiving NMFS EFH conservation recommendations to provide a detailed written response to NMFS within 30 days of receipt, detailing how they intend to avoid, mitigate, or offset the impact of activity on EFH (Section 305[b][4][B]).

EFH is defined as those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity. For the purposes of interpreting the definition of EFH, "waters" includes aquatic areas and their associated physical, chemical, and biological properties that are used by fish, and may include areas historically used by fish where appropriate; "substrate" includes sediment, hard bottom, structures underlying the waters, and associated biological communities; "necessary" means habitat required to support a sustainable fishery and a healthy ecosystem; and "spawning, breeding, feeding, or growth to maturity" covers all habitat types used by a species throughout its life cycle. No EFH is on the Project site.

Clean Water Act

Section 404

Section 404 of the Clean Water Act (CWA) requires project proponents to obtain a permit from the United States Army Corps of Engineers before performing any activity involving a discharge of dredged or fill material into waters of the United States. Waters of the United States include:

- Navigable waters of the United States;
- Interstate waters;
- All other waters where the use or degradation or destruction of the waters could affect interstate or foreign commerce;
- Tributaries to any of these waters; and
- Wetlands that meet any of these criteria, or that are adjacent to any of these waters or their tributaries.

Many surface waters and wetlands in California meet the criteria for waters of the United States.

Section 402

CWA Section 402 regulates construction-related stormwater discharges to surface waters through the National Pollutant Discharge Elimination System program, which is administered by USEPA. In California, the State Water Resources Control Board is authorized by USEPA to oversee the program through the Regional Water Quality Control Boards (RWQCBs)-in this case, the Central Valley (Region 5) RWQCB.

Section 401

Under CWA Section 401(a)(1), the applicant for a federal license or permit to conduct an activity that may result in a discharge into waters of the United States must provide the federal licensing or permitting agency with a certification that any such discharge will not violate state water quality standards. The RWQCBs administer the Section 401 program to prescribe measures for projects that are necessary to avoid, minimize, and mitigate adverse effects on water quality and ecosystems.

A wetted area was identified within the Project site at the time of the biological survey. No work will be occurring within or adjacent to the wetted area. It is recommended that exclusion fencing is installed to provide avoidance in this area.

4.4.4 Mitigation

Nesting Raptors, Migratory Birds, and Special Status Birds

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. If all Project activities will occur outside of nesting bird season, no further mitigation is required.

BIO-2 **(Pre-construction Surveys):** If activities must occur within nesting bird season (February 1 to September 15), a qualified biologist will conduct pre-construction surveys for Swainson's Hawk nests onsite and within a 0.5-mile radius. These surveys will be conducted in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000), and the Staff Guidance Regarding Avoidance of

Impacts to Tricolored Blackbird Breeding Colonies on Agricultural Fields (California Department of Fish and Wildlife 2015) or current guidance. The Swainson's Hawk survey will not be completed between April 21 to June 10 due to the difficulty of identifying nests during this time of year. The pre-construction survey would also provide a presence/absence survey for all other nesting birds within the APE and an additional 50-foot survey area, no more than seven (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 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. Active Swainson's Hawk nests will receive a 0.5-mile buffer, active California Horned Lark nests will receive a 150-foot buffer, and active Tricolored Blackbird nests will receive a 200-foot buffer. Reduced buffer distances for Swainson's Hawk, California Horned Lark, and Tricolored Blackbird may be appropriate depending on site conditions and ongoing disturbance levels and would be discussed with CDFW, if warranted. 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.

BIO-4 (*ITP*): In the event an active Swainson's Hawk nest, California Horned Lark nest, Tricolored Blackbird, or other nest is detected during surveys and cannot be avoided, consultation with CDFW will be warranted to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP pursuant to Fish and Game Code section 2081, subdivision (b) is necessary to comply with CESA.

California Tiger Salamander

BIO-5 (*Avoidance*): The Project's construction activities will occur, if feasible, 350-feet from suitable aquatic and upland habitat of CTS as identified by a qualified biologist. The Project will install exclusion fencing 350-feet or more from the wetted area and upland habitat in the north-east corner of the APE to ensure California tiger salamanders do not enter the site during construction. Exclusion fencing materials, size, and placement should follow wildlife agency guidelines appropriate for the species.

BIO-6 (*Pre-construction Survey*): If activities must occur within 350-feet of suitable aquatic and upland habitat a qualified biologist will conduct a focused survey in accordance with the *USFW Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander* (United States Fish and Wildlife Service, 2003) or current guidance. If no California tiger salamanders are observed during the preconstruction survey, then construction activities may begin. If construction is delayed or halted for more than 30 days, another pre-construction survey for special status herpetofauna should be conducted. If the survey results in the identification of a special status species, the qualified biologist should determine if appropriate buffers can be implemented to avoid impacts to the individual(s).

BIO-7 (*Formal Consultation/ITP*): In the event CTS are detected during surveys and cannot be avoided, consultation with CDFW will be warranted to discuss how to implement the

Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP pursuant to Fish and Game Code section 2081, subdivision (b) is necessary to comply with CESA.

Western Pond Turtle

- BIO-8** (**Avoidance**): The Project's construction activities will occur, if feasible, 350-feet from suitable aquatic and upland habitat of WPT as identified by a qualified biologist. The Project will install exclusion fencing 350-feet or more from the wetted area and upland habitat in the north-east corner of the APE to ensure WPT do not enter the site during construction. Exclusion fencing materials, size, and placement should follow wildlife agency guidelines appropriate for the species.
- BIO-9** (**Pre-construction Survey**): If activities must occur within 350-feet of suitable aquatic and upland habitat a qualified biologist will conduct pre-construction surveys for WPT within the wetland and 350-feet surrounding it. Pre-construction surveys will be conducted in accordance with the *United States Geological Survey Western Pond Turtle (Emys marmorata) Visual Survey Protocol for the Southcoast Ecoregion* (United States Geological Survey, 2006) or current guidance. Surveys will be conducted outside of winter months (December–February). If no WPT are observed during the pre-construction survey, then construction activities may begin. If construction is delayed or halted for more than 90 days, another pre-construction basking survey for WPT will be conducted. If the surveys result in the identification of a special status species, the qualified biologist will determine if appropriate buffers can be implemented to avoid impacts to the individual(s) or if further surveys are required to avoid impacts to potential nesting sites.
- BIO-10** (**ITP**): In the event WPT are detected during surveys and cannot be avoided, consultation with CDFW will be warranted to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP pursuant to Fish and Game Code section 2081, subdivision (b) is necessary to comply with CESA.

Giant garter snake

- BIO-11** (**Avoidance**): The Project's construction activities will occur, if feasible, 350-feet from suitable aquatic and upland habitat of giant garter snake as identified by a qualified biologist. The Project will install exclusion fencing 350-feet or more from the wetted area and upland habitat in the north-east corner of the APE to ensure giant garter snake do not enter the site during construction. Exclusion fencing materials, size, and placement should follow wildlife agency guidelines appropriate for the species.
- BIO-12** (**Focused Survey**): If activities must occur within 350-feet of suitable aquatic and upland habitat a qualified biologist will conduct a focused survey 30 days prior to the start of construction. Surveys would be conducted according to the *USFW Recovery Plan for the Giant Garter Snake (Thamnophis gigas)* (United States Fish and Wildlife Service, 2017) or current guidance. If no giant garter snake are observed during the focused survey, then construction activities may begin. If the survey results in the identification of this special status species, a qualified biologist will consult CDFW.

- BIO-13** (*Formal Consultation/ITP*): In the event giant garter snake is detected during surveys and cannot be avoided, consultation with CDFW will be warranted to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP pursuant to Fish and Game Code section 2081, subdivision (b) is necessary to comply with CESA.

Monarch Butterfly and Crotch Bumble Bee

- BIO-14** (*Pre-Construction Survey*): A qualified biologist will survey the Project work area within seven (7) days prior to the start of Project activities to identify whether over-wintering or foraging habitats for Monarch butterfly or Crotch bumble bee are present on or within 100 feet of the Project work area. If no individuals or suitable habitat is observed, no further mitigation is required.
- BIO-15** (*Visual Surveys*): If suitable habitat is identified buffer zones of 100 feet will be provided using exclusion fencing. If habitat cannot be avoided, a qualified biologist will conduct visual surveys for Monarch butterfly between October through May prior to Project activity. If habitat cannot be avoided, a qualified biologist will conduct visual surveys for Monarch butterfly between March 1 to September 1 prior to Project activity. Surveys will not take place when daytime temperatures are below 55 degrees Fahrenheit. If an individual or colony is observed, no Project activities will occur until CDFW has been consulted.
- BIO-16** (*Consultation with CDFW*): The qualified biologist will consult with CDFW if a Monarch butterfly individual or a colony is observed. Work will not occur until a plan to protect the Monarch butterfly, including over-wintering colonies, has been submitted and approved in writing by CDFW. The qualified biologist will consult with CDFW if an individual Crotch bumble bee or a nest is observed. Work will not occur until CDFW determines distances for disturbance-free buffers, or a plan to protect the Crotch bumble bee, including over-wintering queens, has been submitted to and approved in writing by CDFW.

Western Spadefoot and California Red-legged Frog

- BIO-17** (*Avoidance*): The Project's construction activities will occur, if feasible, 350-feet from suitable aquatic and upland habitat for western spadefoot and California red-legged frogs as identified by a qualified biologist. The Project will install exclusion fencing 350-feet or more from the wetted area and upland habitat in the north-east corner of the APE to ensure western spadefoot and California red-legged frogs do not enter the site during construction. Exclusion fencing materials, size, and placement should follow wildlife agency guidelines appropriate for the species. If activities must occur within 350-feet of suitable aquatic and upland habitat a qualified biologist will conduct a focused survey during the known peak breeding months for these species (February-March), prior to the start of construction.
- BIO-18** (*Focused Survey*): If activities must occur within 350-feet of suitable aquatic and upland habitat a qualified biologist will conduct a focused survey during the known peak breeding months of this species (February-March), prior to the start of construction.

Surveys would be conducted according to *Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog* (United States Fish and Wildlife Service, 2005) or current guidance. If no western spadefoot or California red-legged frog adults or larvae are observed during the focused survey, then construction activities may begin. If the survey results in the identification of this special status species, a qualified biologist will consult CDFW to determine if appropriate buffers can be implemented to avoid impacts to individual(s) during construction.

- BIO-19** (*Formal Consultation/ITP*): In the event western spadefoot and California red-legged frogs are detected during surveys and cannot be avoided, consultation with CDFW will be warranted to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP pursuant to Fish and Game Code section 2081, subdivision (b) is necessary to comply with CESA.

Special Status Plant Species

- BIO-20** (*Pre-Construction Survey*): A qualified biologist will conduct a pre-construction survey for California satintail, dwarf downingia, hairy Orcutt grass, pincushion navarettia, San Joaquin Valley Orcutt grass, Sanford's arrowhead, spiny-sepaled button-celery, and succulent owl's-clover, 30 days prior to the start of construction according to CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (California Department of Fish and Wildlife (CDFW) 2018) or current guidance for areas where ground disturbance will occur and prior to the start of construction. If no individuals or suitable habitat is observed, no further mitigation is required.
- BIO-21** (*Avoidance*): If any suitable habitat for special status plants are identified during a survey, a disturbance-free buffer and use of exclusion fencing will be placed around the area.
- BIO-22** (*Formal Consultation*): If rare plant individuals or populations or sensitive natural communities are detected within Project work areas during the pre-construction or focused botanical survey, and the plants cannot be avoided, the Project proponent will initiate consultation with CDFW and/or USFWS to determine next steps for relocation or to obtain an Incidental Take Permit (ITP).

4.5 CULTURAL RESOURCES

Table 4-10: 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.5.1 Baseline Conditions

Field Survey

An intensive cultural resources survey of the Rolling Hills Water Meter Project's area of potential effects (APE) was conducted by ASM Associate Archaeologists in March 2022. The field methods employed included intensive pedestrian examination of the ground surface for evidence of archaeological sites in the form of artifacts, surface features (such as bedrock mortars, historical mining equipment), and archaeological indicators (e.g., organically enriched midden soil, burnt animal bone); the identification and location of any discovered sites, should they be present; tabulation and recording of surface diagnostic artifacts; site sketch mapping; preliminary evaluation of site integrity; and site recording, following the California Office of Historic Preservation Instructions for Recording Historic Resources, using DPR 523 forms.

The cultural resources survey was conducted with parallel transects spaced at 15-meter intervals along the water distribution system pipeline route. No historical, unique archaeological, or tribal cultural resources of any kind were identified within the study area ([Appendix C](#)).

Records Search

In order to determine whether the study area had been previously surveyed for cultural resources, and/or whether any such resources have been previously recorded, an archival records search was conducted by the staff of the Southern San Joaquin Valley Information Center (SSJVIC). The records search was completed to determine: (i) if prehistoric or historical archaeological sites had previously been recorded within the study areas; (ii) if the project area had been systematically surveyed by archaeologists prior to the initiation of this field study; and/or (iii) whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive. Records examined included archaeological site files and maps, the NRHP, Historic Property Data File, California Inventory of Historic Resources, and the California Points of Historic Interest.

According to the SSJVIC record search, six previous studies had covered portions of the APE and no cultural resources of any kind are known to exist within it ([Appendix C](#)).

Table 4-11: Previous Cultural Resource Studies

Report No.	Year	Author/Affiliation	Title
M-120	1987	Caltrans	Archaeological Survey Report for a Proposed Route Adoption, Audubon Dr to Route 45
M-135	1994	Unknown	Supplemental Historic Property Survey Report: Corridor Study & Route Adoption, N. Fresno & S. Madera Counties, California
M-204	1996	M.E. Clark	Archaeological Survey Report for Gateway Villages Element, Madera County, California
M-205	1995	WM. Moratto & B.P. Wickstrom	Archaeological Survey of N 3/4 of W 1/2 of Sec 4, State Route 41 at Ave 12, Madera County
M-290	1982	Caltrans	Archaeological Survey for Various Improvements to 06-MAD-41 PM 0.0/06.9
M-1094	2010	L. Leach-Palm et al.	Cultural Resources Inventory of Caltrans District 6 Rural Conventional Highways, Fresno, Kern, Kings, Madera and Tulare Counties

Native American Heritage Commission and Tribal Outreach

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File was also completed by ASM. NAHC was provided with a brief description of the Project, a map showing its location, and requested that a search of the Sacred Lands File be conducted 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 results were negative for the presence of tribal cultural resources.

Additionally, the NAHC provided a current list of Native American Tribal contacts. The six tribal representatives identified by NAHC were contacted in writing via United States Postal Service in a letter mailed March 28, 2022, informing each Tribe of the Project, and asking about known tribal cultural resources in the APE. Follow-up letters and emails were also sent to the tribal contacts on the NAHC list which included the five tribes and individuals listed below. The Southern Sierra Mewuk responded, stating that the Project was out of their tribal territory. The North Fork Mono also stated that they had no concerns. No other responses were received ([Appendix C](#)).

1. Dumna Wo-Wah Tribal Government, Robert Ledger Sr., Chairperson
2. North Fork Mono Tribe, Ron Goode, Chairperson
3. North Fork Rancheria of Mono Indians, Gary Walker, Chairperson
4. North Valley Yokut Tribe, Katherine Erolinda Perez, Chairperson
5. South Sierra Miwuk Indian, William Leonard, Chairperson
6. Wuksache Indian Tribe/Eshom Valley Band, Kenneth Woodrow, Chairperson

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?

Less than Significant Impact. The records search, pedestrian survey, Sacred Lands File search, and tribal outreach failed to identify any historical resources in the Project area. There are no known historical resources or historic properties within the Project APE. Construction will also take place within previously

disturbed public rights-of-way and along existing service connections. The Project therefore does not have the potential to result in adverse impacts or effects to historical resources or historic properties. Following California Code of Regulations section 15064.5(f), lead agencies are to make provisions for historical or unique archaeological resources accidentally found during construction. These provisions include immediate evaluation of the find by a qualified archaeologist. If the find is determined by the lead agency to be a historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow recovering an archaeological sample or to employ avoidance measures will be provided. Further, the State Water Board includes standard measures in its funding agreements that proscribe the legal requirements that must be followed if historical resources are discovered during construction. Those standard measures include following 36 CFR 800.13 procedures for post-review discovery. Best management practice (BMP) **CUL-1** outlined in section 4.5.4 below, would further minimize impacts.

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

Less than Significant Impact. As stated above, there are no known historical, unique archaeological, or tribal cultural resources within the Project APE and construction will take place within previously disturbed public rights-of-way and along existing service connections.

The NAHC and tribes with knowledge of the Project area did not identify archaeological resources. 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. Further, the State Water Board includes standard measures in its funding agreements that proscribe the legal requirements that must be followed if significant archaeological or historical resources are discovered during construction. Those standard measures include following the 36 CFR 800.13 procedures for post-review discovery. The California Code of Regulations, cited above, also describes measures to be taken for accidental discovery. Following these measures, would further minimize impacts. BMP **CUL-1** outlined in **Section 4.5.4** below, would further minimize impacts.

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

Less than Significant Impact. No human remains were identified onsite and there was no evidence found in the course of preparing the cultural resources assessment that the area has been used as a cemetery or burial ground in the past. Regardless, it is possible that human remains may be present at subsurface levels. State law prescribes protective measure that must be taken in the event that human remains are discovered. Specifically, Section 7050.5 of the California Health and Safety Code requires that the County Coroner shall be immediately notified of the discovery and no further excavation or disturbance of the site or any nearby area may continue until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains. Compliance with state and federal law would ensure that less than significant impacts occur to any human remains that may be discovered on site. See BMP **CUL-2** in **Section 4.5.4**.

4.5.3 Federal Cross-Cutting Topic

National Historic Preservation Act

The National Historic Preservation Act of 1966 as amended created the National Register of Historic Places and extended protection to historic places of State, local, and national significance. It established the Advisory Council on Historic Preservation, State Historic Preservation Officer (SHPO), Tribal Preservation Officers, and a preservation grants-in-aid program. Section 106 directs federal agencies to take into account effects of their actions ("undertakings") on properties in or eligible for the National Register. Section 106 of the act is implemented by regulations of the Advisory Council on Historic Preservation (36 Code of Federal Regulations [CFR] Part 800).

The U.S. Department of the Interior criteria and procedures for evaluating a property's eligibility for inclusion in the National Register are at 36 CFR Part 60. The 36 CFR Part 800 regulations, implementing Section 106, call for consultation with the SHPO, Native American tribes, and interested members of the public throughout the Section 106 compliance process. The four principal steps are to:

- Initiate the Section 106 process (36 CFR Part 800.3);
- Identify historic properties, cultural resources that are eligible for inclusion in the National Register of Historic Places (36 CFR Part 800.4);
- Assess the effects of the undertaking to historic properties within the area of potential effect (36 CFR Part 800.5); and
- Resolve adverse effects (36 CFR Part 800.6).

Adverse effects on historic properties often are resolved through preparation of a Memorandum of Agreement (MOA), developed in consultation with Reclamation, the SHPO, Native American tribes, the Advisory Council on Historic Preservation, and interested members of the public. The MOA stipulates procedures that treat historic properties to mitigate adverse effects (36 CFR Part 800.14[b]).

No historic properties have been identified within the area of potential effects. Therefore, the proposed Project would not have an adverse effect on historic properties.

4.5.4 Best Management Practices

CUL-1 Should historical resources or 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. The State Water Board will be contacted by the archaeologist within 72 hours of discovery with recommendations. The State Water Board will consult with the State Historic Preservation Officer on the find according to procedures codified in 36 CFR 800.13(b)

CUL-2 State law prescribes protective measure that must be taken in the event that human remains are discovered. Specifically, Section 7050.5 of the California Health and Safety Code requires that the County Coroner shall be immediately notified of the discovery and no further excavation or disturbance of the site or any nearby area may continue until the Madera Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the Madera Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descendant from the

deceased Native American. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

4.6 ENERGY

Table 4-12: 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.6.1 Baseline Conditions

Current site operations require diesel and gasoline fuel to make maintenance visits, as necessary. Operational energy consumption is composed of electricity consumption to power the existing water production well and its associated appurtenances. There are no applicable State or local plans for renewable energy or energy efficiency applicable to the Project.

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. Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. The use of this energy would be temporary and only part of the construction phase of the Project. California Code of Regulations Title 13, Motor Vehicles, Section 2449(d)(2), Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel because of unproductive idling of construction equipment.

Operational energy usage would remain very similar to baseline conditions, as the Project consists of the new pipeline, new water meters, well site improvements, and cathodic protection for the existing water storage tank, and does not involve the construction of any new wells. Impacts would therefore be less than significant.

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

No Impact. California Code of Regulations 13 § 2485 prohibits the idling of commercial diesel equipment for greater than five minutes, and will ensure that energy usage remains efficient. Project operational energy consumption would be similar to current operations and maintenance activities require. There are no applicable State or local plans for renewable energy or energy efficiency applicable to the Project. Therefore, the Project would not conflict with State or local plans for energy efficiency or renewable energy. There would be no impact.

4.7 GEOLOGY AND SOILS

Table 4-13: 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:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.7.1 Baseline Conditions

Madera County is divided into two major physiographic and geologic provinces: the Sierra Nevada Range and the Central Valley. The Sierra Nevada physiographic province in the northeastern portion of the county is underlain by metamorphic and igneous rock. It consists mainly of homogenous types of granitic rocks, with several islands of older metamorphic rock. The central and western parts of the county are part of the Central Valley province, underlain by marine and non-marine sedimentary rocks. It is basically a flat, alluvial plain, with soil consisting of material shed by the uplifting of the mountains, as well as San Joaquin River alluvium in the western valley. Consolidated alluvium occurs at depths of 500 feet near the City of Madera, to approximately 20,000 feet in the western part of the county.

The foothill area of the county is essentially a transition zone, containing old alluvial soils that have been dissected by the west-flowing rivers and streams which carry runoff from the Sierra Nevadas. This gently rolling topography is broken in many areas by outcroppings of bedrock. Soils here are generally quite dense and compact.⁵

Using the United States Department of Agriculture Natural Resources Conservation Service soil survey of the Project area, a report of the onsite soils was generated and is provided in [Appendix B](#). Topical information sourced from that report is summarized below.

Geology and Soils

Six soil mapping units representing six soil types were identified within the APE and are listed in [Table 4-14](#). The soils are displayed with their core properties in the table below, according to the Major Land Resource Area of California 19 map area. All six soils are primarily used for grazing, wildlife habitat, and watershed areas.

Table 4-14: List of Soils Located Onsite and Their Basic Properties

Soil	Soil Map Unit	Percent of APE	Hydric Unit	Hydric Minor Units	Drainage	Permeability	Runoff
<i>Greenfield</i>	Coarse sandy loam, 0 to 3 percent slopes	0.2%	No	No	Well drained	Moderately rapid permeability	Negligible runoff
	Sandy loam, 0 to 3 percent slopes	19.5%	No	No	Well drained	Moderately rapid permeability	Slow to medium runoff
<i>Ramona</i>	Sandy loam, 0 to 3 percent slopes	68.3 %	No	Yes	Well drained	Moderately slow permeability	Slow to rapid runoff
<i>San Joaquin</i>	Sandy loam, 0 to 3 percent slopes	6.5%	No	Yes	Well drained	Very slow permeability	Medium to very high runoff
<i>Whitney and Rocklin</i>	Sandy loam, 3 to 8 percent slopes	0.8%	No	Yes	Generally Good	Moderately rapid permeability	Slow to medium runoff
	Sandy loam, 8 to 15 percent slopes	4.6%	No	Yes	Generally Good	Moderately rapid permeability	Slow to medium runoff

None of the major soil mapping units were identified as hydric, but four of the six minor soil mapping units are considered hydric. Of the four minor units considered hydric, they make up about 1% of the APE soils. A wetted area was found in the area identified as Whitney and Rocklin soil with 8 to 15 percent slopes and is discussed further below. 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 Web Soil Survey report is available in [Appendix B](#) at the end of this document.

⁵ (Madera County General Plan Background Report 1995), Chapter 7 Safety, page 7-1, Accessed March 21, 2022.

Faults and Seismicity

The Project is not located within an Alquist-Priolo Earthquake Fault Zone and no known faults cut through the local soil at the site. The nearest fault is the Clovis Fault, located approximately 5 miles east of the Project Site. The San Andreas Fault, located approximately 75 miles west, is the dominant active tectonic feature of the Coast Ranges and represents the boundary of the North American and Pacific plates. The nearest major fault is the San Joaquin Fault, located 50.955-miles west of the Project site.

Liquefaction

The potential for liquefaction, which is the loss of soil strength due to seismic forces, is dependent on soil types and density, depth to groundwater, and the duration and intensity of ground shaking. Although no specific liquefaction hazard areas have been identified in Madera 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 the southern portion of Madera County, liquefaction hazards would be negligible.

Soil Subsidence

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

Dam and Levee Failure

Millerton Lake along with the Friant Dam is located approximately 9 miles northeast of the Project site. The Project site lies outside of the inundation area for the Friant Dam.

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.
 - ii. Strong seismic ground shaking?

Less than Significant Impact. The Project site and its vicinity are located in an area traditionally characterized by relatively low seismic activity. The site is not located in an Alquist-Priolo Earthquake Fault Zone as established by the Alquist-Priolo Fault Zoning Act (Section 2622 of Chapter 7.5, Division 2 of the California Public Resources Code). The nearest major fault is the San Joaquin Fault, located 51-miles west of the Project site. Any impact would be less than significant.

- iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact. Liquefaction is a process which involves the temporary transformation of soil from a solid state to a fluid form during intense and prolonged ground shaking. Water-saturated areas with shallow depth to groundwater and uniform sands, loose-to-medium in density, are prone to

liquefaction. The Project site is not in a wetland area, not in an area where it is subject to 0.3 g acceleration or greater, and does not contain soils where liquefaction can occur due to coarseness or low clay content. Impacts would be less than significant.

iv. Landslides?

No Impact. As the Project is located on the valley floor, no major geologic landforms exist on or near the site that could result in a landslide event. According to the Madera County General Plan Background Report, the Project site is not within or near a region classified with a high landslide potential⁶. The local topography is essentially flat and level. There would 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, grading, and water infrastructure construction. These activities could expose soils to erosion processes and the extent of erosion would vary depending on slope steepness/stability, vegetation/cover, concentration of runoff, and weather conditions. Dischargers whose projects disturb one (1) or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development of a SWPPP by a certified Qualified SWPPP Developer (QSD). Since the Project site has relatively flat terrain with a low potential for soil erosion and would comply with the State Water Resources Control Board requirements, the impact 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. Soils onsite consist of the soils depicted on **Table 4-14**, which are classified as well drained and somewhat excessively drained, all with a very low runoff class. The Project site and surrounding areas do not contain substantial grade changes. Risk of landslides, lateral spreading, subsidence, liquefaction, and collapse are minimal due to the soil characteristics. The 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 Project does not propose a significant change in the local topography that would cause sloping. The construction of the Project would involve excavating portions of the Project site. The Project does not include the development of habitable structures or facilities that could be affected by expansive soils or expose people to substantial risks to life or property. Furthermore, the Project would be consistent with the California Building Standards Code. Any impacts would be less than significant.

⁶ (Madera County General Plan Background Report, 1995). Accessed March 14, 2022

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 would be no impact.

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

Less than Significant Impact. There are no known unique geological features on the Project site. While the Project will occur in the public right-of-way and in a rural residential subdivision, there is a remote possibility that unique paleontological resources could be destroyed as a result of excavation during construction activities. Best Management Practice **GEO-1** will be implemented in the event a paleontological resource is discovered during construction activity. Any impacts would be less than significant.

4.7.3 Best Management Practices

GEO-1 (Unique Paleontological Resources) If during construction a paleontological resource has been discovered, construction activities shall halt within a 50-foot radius of the discovery. A qualified paleontologist shall be consulted to determine if the paleontological resource is unique. If the resource is unique, the Project proponent shall cover all expenses to have the resource archived. If the resource is not unique, construction activity within the discovery shall be allowed.

4.8 GREENHOUSE GAS EMISSIONS

Table 4-15: 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.8.1 Baseline Conditions

Commonly identified GHG emissions and sources include the following:

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

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

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

Carbon dioxide equivalent (CO₂e) is the summation of CO₂, CH₄, and N₂O, multiplied by each greenhouse gases' global warming potential (GWP). For purposes of this analysis, CH₄ and N₂O are assigned a multiplier of 25 and 298, respectively, based on longevity in the atmosphere and the intensity of infrared absorbed. This is consistent with CARB's calculation and the 2007 Intergovernmental Panel on Climate Change (IPCC) fourth assessment report (AR4).

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

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

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

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

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

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

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

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 CO₂ to the global atmosphere during the past 20 years are due to fossil fuel burning. Atmospheric concentrations of CO₂, CH₄, and N₂O 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 (CO₂e), based on the GHG's GWP. The GWP is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, one ton of CH₄ has the same contribution to the greenhouse effect as approximately 21 tons of CO₂. Therefore, CH₄ is a much more potent GHG than CO₂.

The Air Quality Output Files were prepared in May 2022, and are contained in [Appendix A](#).

4.8.2 Thresholds

In accordance with SJVAPCD's *CEQA Greenhouse Gas Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects*⁷, proposed projects complying with Best Performance Standards (BPS) would be determined to have a less-than-significant impact. Projects not complying with BPS would be considered less than significant if operational GHG emissions would be reduced or mitigated by a minimum of 29 percent, in comparison to business-as-usual (year 2004) conditions. In addition, project-

⁷(San Joaquin Valley Air Pollution Control District 2009) Accessed 22 February 2021.

generated emissions complying with an approved plan or mitigation program would also be determined to have a less-than-significant impact.

The Water Board has not adopted its own GHG thresholds or prepared a Greenhouse Gas Reduction Plan that can be used as a basis for determining project significance. The Water Board conservatively assesses GHG emissions using a numeric threshold approach adopted by the Sacramento Metro Air Quality Management District (SMAQMD), which requires construction emissions to not exceed 1,100 metric tons of CO₂-equivalent per year.

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 4-16**, the Project would be below the SMAQMD 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 4-16. Short-Term Construction-Generated GHG Emissions

Year	Emissions (MT CO ₂ e) ¹
2022	146.5562
2023	315.4248
<i>Total</i>	<i>461.981</i>
<i>Amortized over Life of Project (30 years)</i>	<i>15.3993</i>
<i>AB 32 Consistency Threshold for Land-Use Development Projects*</i>	<i>1,100</i>
<i>Exceed Threshold?</i>	<i>No</i>

1. Refer to **Appendix A** for modeling results and assumptions. Totals may not sum due to rounding.

* As published in the Sacramento Metro Air Quality Management District's CEQA Air Quality Guidelines. Available online at CH2ThresholdsTable4-2020.pdf (airquality.org) Accessed September 2022.

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 compared to current conditions. The Project would provide a more reliable water system and water meters 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 4-17: 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.9.1 Baseline Conditions

Madera County has prepared a Hazardous Waste Management Plan (adopted January 1989) in accordance with Health and Safety Code Section 24135 et seq., which states that counties may prepare such plans "for the management of all hazardous waste produced in the county," as well as a plan for the siting of new facilities. County Hazardous Waste Management Plans are to be integrated with other local land use planning efforts. These plans were originally to be reviewed by the State Department of Health Services (DHS). Subsequent to the formation of the California Environmental Protection Agency (CalEPA) in 1991, County Hazardous Waste Management Plans are now to be submitted to the CalEPA's Department of Toxic Substances Control (DTSC).

Hazardous Materials

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code (GC) Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop at least annually an updated Cortese List. DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List. DTSC's EnviroStor database provides DTSC's component of Cortese List data (DTSC, 2010). In addition to the EnviroStor database, the State Water Resources Control Board Geotracker database provides information on regulated hazardous waste facilities in California, including underground storage tank (UST) cases and non-UST cleanup programs, including Spills-Leaks-Investigations-Cleanups sites, Department of Defense sites, and Land Disposal program. A search of the DTSC EnviroStor⁸ database and the State Water Resources Control Board Geotracker⁹ performed on March 14, 2022 determined that there are no known active hazardous waste generators or hazardous material spill sites within the Project site or immediate surrounding vicinity.

Airports

The nearest active public airport is the Fresno Yosemite International Airport, approximately ten (10) miles southeast of the Project site. The nearest private airport is Sierra Sky Park Airport located 5.6 miles southwest of the Project Site.

Emergency Response Plan

The Madera County Office of Emergency Services coordinates the development and maintenance of the Madera County Emergency Operations Plan.

Sensitive Receptors

Sensitive receptors, consisting of residences, are located immediately adjacent to 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. Project construction would involve the storage, use, and transport of small amounts of hazardous materials (e.g., asphalt, fuel, lubricants, and other substances) on roadways. Regulations governing hazardous materials transport are stated in Title 22 California Code of Regulations (CCR) and the California Vehicle Code (Title 13 CCR). The transportation of hazardous materials also is subject to other applicable local and federal regulations, which have been specifically designed to minimize the risk of upset during routine construction activities. The State agencies with primary responsibility for enforcing federal and State regulations, and for responding to hazardous materials transportation emergencies, are the California Highway Patrol and the California Department of Transportation (Caltrans). Together, these agencies determine container types to be used and license hazardous waste haulers for transportation of hazardous waste on public roads. Various local entities or

⁸ (California Department of Toxic Substances Control Envirostor 2020) Accessed March 2022

⁹ (State of California Water Resources Control Board - Geotracker 2022) Accessed March 2022.

agencies are generally delegated first responder responsibilities in the event of a hazardous material spill or release.

Construction and operation of the Project would be required by law to implement and comply with existing hazardous material regulations. Each of these regulations is specifically designed to protect public health through improved procedures for handling hazardous materials, better technology in equipment used to transport these materials, and a more coordinated, quicker response to emergencies. By implementing measures needed to be consistent with existing regulations, impacts would 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. The Project consists of refurbishing an existing well, replacing water pipeline, installing new water meters, and installing cathodic protection for an existing water storage tank. Power sources for operational purposes would be all electric. This infrastructure is not designed to convey or store hazardous materials. Project construction would temporarily involve the storage, use, and transport of small amounts of hazardous materials (e.g., asphalt, fuel, lubricants, and other substances) on roadways. Therefore, in the event of a reasonably-foreseeable upset or accident during construction or operational maintenance activities, minimal hazardous materials may be released into the environment. Construction and operation of the Project would be required by law to implement and comply with existing hazardous material regulations. By implementing measures needed to be consistent with existing regulations, impacts would 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 nearest school to the Project site is Stone Creek Elementary School located approximately half a mile north from the Project site. The Project would install a water distribution pipeline, new water meters, refurbish an existing well, and install cathodic protection for an existing water storage tank, and would not result in the routine use, transport or disposal of substantial quantities of hazardous materials. Therefore, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed 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?

No Impact. The Project does not involve land that is listed as a hazardous materials site pursuant to Government Code Section 65962.5 and is not included on a list compiled by the DTSC. A search of the DTSC EnviroStor database and the State Water Resources Control Board Geotracker performed on March 14, 2022 determined that there are no known active hazardous waste generators or hazardous material spill sites within the Project site or immediate surrounding vicinity. There would be no impact.

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

No Impact. The Project is not located within an airport land use plan. Sierra Sky Park Airport is 5.6 miles southwest of the Project site. Fresno Yosemite International Airport is located 10 miles southeast of the Project Site. Construction of the Project would not be a safety hazard for people working in the area. Operation of the well site would not generate excessive noise, and any construction noise would be temporary. 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. Madera County has an Operational Area Emergency Operations Plan¹⁰, that covers Madera County. The Project does not provide any physical barriers or disturb any roadways in such a way that would impede emergency or hazards response; all work conducted in public rights-of-way will require an Encroachment Permit from the County of Madera and a traffic control plan. Temporary traffic controls are required to comply with the Federal Highway Administration's Manual on Uniform Traffic Control Devices. Therefore, the Project would have less than significant impact.

- 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. The Project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones¹¹. There would be no impact.

¹⁰ [636533672515870000 \(maderacounty.com\)](https://www.maderacounty.com/636533672515870000) Site accessed August 2022.

¹¹ (California Department of Forestry and Fire Protection - Fire and Resource Assessment Program (FRAP) 2022).

4.10 HYDROLOGY AND WATER QUALITY

Table 4-18: 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.10.1 Baseline Conditions

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

The Project site lies within the Root Creek-San Joaquin River and the Cottonwood Creek-San Joaquin River watersheds; Hydrologic Unit Code (HUC): 1804000108 and HUC: 1804000103, respectively. Within the site, there are also three subwatersheds: Scout Island-San Joaquin River, HUC: 180400010303; Buttonwillow Slough-Lone Willow Slough, HUC: 180400010803; and Root Creek, HUC: 180400010801. The nearest surface water is the San Joaquin River that runs by the southeast corner approximately 0.2 miles from the Project site. The Root Creek-San Joaquin River and Cottonwood Creek-San Joaquin subwatersheds are comprised of stormwater or snowmelt collected in upland areas which flows across the north-northwest border of Fresno and turns in the North direction to run alongside Highway 33. The San Joaquin River eventually reaches Modesto and empties into the San Francisco Bay. The Root Creek subwatershed and stream runs westward adjacent to the northern border of the Project area¹².

The Project lies entirely within the San Joaquin Valley-Madera subbasin of the San Joaquin Valley Groundwater Basin.¹³ There are no tributaries, or distributaries located within the site boundaries or adjacent to the site.

The water system supplies drinking water to the neighborhood through its groundwater wells within the neighborhood.

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. Construction activities may result in a potential impact through the erosion of soils and the build-up of silt and debris in runoff areas, however under California General Construction Permit 2009-0009-DWQ guidelines implementing a SWPPP, performed and approved by a qualified sediment practitioner (QSP) or a qualified sediment developer (QSD), would be required prior to construction, handling, and transportation of hazardous materials within the Project site area. In addition, construction activities could result in accidental spills of fuels, paints, and other hazardous materials entering storm drains and other runoff areas. Through a SWPPP carried out by the contractor and a QSP/QSD, the Project would design and utilize best management practices in order to stabilize any sedimentation and erosion from leaving the Project site. Therefore, impacts would 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?

No Impact. The Project proposes to make improvements to an existing well site serving an existing community. About one mile of pipeline will be installed to provide a looped system that will provide better water pressure and reliability. Meters will be installed and are anticipated to reduce water consumption within the neighborhood. Cathodic protection will be installed for an existing water storage tank. The Project would not substantially interfere with groundwater recharge through the addition of impermeable surfaces. No planned growth is anticipated. There would be no impact.

¹² (United States Environmental Protection Agency 2022) Accessed May 2022

¹³ (State of California Department of Water Resources 2022) Accessed May 2022.

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 be required to complete a SWPPP. SWPPP's include mandated soil 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 will likely result in a very limited increase in impermeable surfaces, due to placement of water meters. Pipeline placement, well site repairs, and work on the existing water storage tank will not result in new impermeable surfaces. The Project will not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site. 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

iv. impede or redirect flood flows?

Less than Significant Impact. There are no existing or planned storm drainage systems in the area. The Project will not impede or redirect flood flows, or provide substantial additional sources of polluted runoff. Site runoff will continue to flow as it has been within the neighborhood. Roads, grade, drainage flow patterns, and storm drain runoff areas that are disturbed by the Project would be repaired to pre-construction quality. These areas existed for these uses before the Project and would continue being utilized for their respective uses after the Project is completed. Therefore, impacts would be less than significant.

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

No Impact. The Project is not located within any flood hazard, tsunami, or seiche zones that would cause the risk of released pollutants due to inundations. Therefore, 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 or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The installation of the new and replacement pipeline, water meters, storage tank improvements, and repairs to the well site would not impact water quality and would reduce water consumption. Therefore, there would be no impact.

4.10.3 Federal Cross-Cutting Topic

Flood Plain Management- Executive Order Number 11988

The Federal Emergency Management Agency (FEMA) designates flood hazard and frequency for cities and counties on its Flood Insurance Rate Maps. The proposed Project area is not within a designated 100-year floodplain, on a floodplain map, or otherwise designated by FEMA.

Rivers and Harbors Act

The Rivers and Harbors Act of 1899 prohibits construction of any bridge, dam, dike, or causeway over or in navigable waterways of the U.S., without Congressional approval. Under Section 10 of the Act, the building of any wharfs, piers, jetties, and other structures is prohibited without Congressional approval, and excavation or fill within navigable waters requires the approval of the Chief of Engineers. The USACE is authorized to issue permits for the discharge of refuse matter into or affecting navigable waters under Section 13 of the act.

The proposed Project would not be constructed in a location that would affect a navigable waterway, requiring permit or approval by USACE¹⁴.

Safe Drinking Water Act, Sole Source Aquifer Protection

The Safe Drinking Water Act (SDWA) required USEPA to establish criteria through which an aquifer may be declared a critical aquifer protection area. Since 1977, it has been used by communities to help prevent contamination of groundwater from federally funded projects. These aquifers are defined as "sole source aquifers." USEPA's Sole Source Aquifer (SSA) Program was established under Section 1424(e) of the SDWA. These are, essentially, aquifers that are the only drinking water supply for the population of a region.

SSA designation protects an area's groundwater resources by requiring USEPA to review all proposed projects within the designated area that will receive federal financial assistance. The SSA Program states that if USEPA determines an area to have an aquifer which is the sole or principal drinking water source for the area, that if contaminated would create a significant hazard to public health, a notice of that determination needs to be published in the Federal Register. After publication of any such notice, no commitment for federal financial aid may be applied for any project that the Administrator determines may contaminate the aquifer through a recharge zone, so as to create a significant hazard to public health (USEPA 2019).

The Project is not located in a Sole Source Aquifer¹⁵.

¹⁴ (United States Environmental Protection Agency 2022) Accessed March 2022

¹⁵ (United States Environmental Protection Agency 2022). Accessed March 2022



Figure 4-3: FEMA Map

4.11 LAND USE AND PLANNING

Table 4-19: 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.11.1 Baseline Conditions

The Project site is located in southeast Madera County along State Route 41. The Project site is currently a residential neighborhood. As found across the Central Valley in California, the Project site is surrounded by farmland and open space outside of urban planned areas.

General Plan Land Use Designations and Zone Districts are illustrated in [Figure 2-3](#) and [Figure 2-4](#), respectively.

4.11.2 Impact Analysis

a) Would the project physically divide an established community?

No Impact. The Project would not physically divide an established community. The Project would only consist of updating the existing water system in the Project site. No housing would be destroyed in order for the Project to be completed. The Project does not propose to vacate or abandon existing rights-of-way. Therefore, 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?

No Impact. The Project would not cause a significant environmental conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The Project would not be in conflict with any Madera County General Plan policies. Therefore, there would be no impact.

4.11.3 Federal Cross-Cutting Topic

Coastal Zone Management Act

The Coastal Zone Management Act was enacted in 1972. This act, administered by the National Oceanic and Atmospheric Administration, provides management of the nation's coastal resources. The California coastal zone generally extends 1,000 yards inland from the mean high tide line. The Project site is more

than 100 miles from the coastline. Therefore, the proposed Project would not conflict with the Coastal Zone Management Act.

4.12 MINERAL RESOURCES

Table 4-20: 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.12.1 Environmental Setting and Baseline Conditions

Extracted mineral resources in Madera County include aggregate (sand, gravel, and crushed stone), asbestos, copper, gold, iron, and silver. The most significant resource in terms of abundance, demand, and economic value, is aggregate. Sand, gravel, and crushed stone are building materials, and constitute crucial resources in a developing region.¹⁶

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

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. The Project or implementation of the Project would not result in the loss of availability of a known mineral resource that would be of value to the region or residents. Furthermore, the Project area has not been designated as a locally important mineral resource recovery site by a general plan, specific plan or land use plan. There would be no impact.

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?

No Impact. The Project site is not delineated on a local land use plan as a locally important mineral resource recovery site; therefore, the existence of the Project would not result in the loss of availability of any mineral resources. There would be no impact.

¹⁶ (Madera County General Plan Background Report 1995) Chapter 6 Agricultural and Natural Resources, page 6-9.
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4.13 NOISE

Table 4-21: 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.13.1 Baseline Conditions

The Project is located in southern Madera County, dominated by agricultural production. SR 41 is the nearest highway, which is adjacent to the Project site to the east. The west side of the Project site borders along agricultural farmland plots. The City of Fresno city limit is located two miles south of the Project site. The community of Madera Ranchos is 1.32 miles north of the Project site. The City of Madera is located 10 miles northwest from Project site. The Fresno Yosemite International Airport is located 10-miles southeast, and the Sierra Sky Park Airport is located 5.6-miles southwest.

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. The construction phase of the Project will involve temporary noise sources, originating predominately from off-road equipment, such as backhoes, drilling rigs, scrapers, and tractors. The construction phase of the Project is estimated to last approximately eight months. The Project area is surrounded by agricultural lands, accustomed to noises associated with farm equipment. The Project would comply with the Madera County Noise Regulation Ordinance¹⁷. Operational maintenance activities would be on an as-needed basis with routine monitoring performed by existing staff and would not generate significant new noise. Any impacts would be mild and temporary and therefore, less than significant.

¹⁷ (Madera County Municipal Code 2022) Accessed May 2022.
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b) Would the project result in generation of excessive ground borne vibration or ground borne noise levels?

Less than Significant Impact. The construction phase of the Project will have excavation and grading as part of development of the new water pipeline for a duration of approximately eight (8) months. The Project is located within an area dominated by agricultural production, which includes the use of off-road equipment and ground-disturbing activities on a regular basis. Conditions created by Project-related construction activities would not vary substantially from the baseline conditions routinely experienced nearby. Impacts would 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 nearest active public airport is the Fresno Yosemite International Airport, approximately ten (10) miles southeast of the Project site. The nearest private airport is Sierra Sky Park Airport located 5.6 miles southwest of the Project site. The Project site is not located within two miles of a public or public use airport. Therefore, there will be no impact.

4.14 POPULATION AND HOUSING

Table 4-22: 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 example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.14.1 Baseline Conditions

The Project is located within southern Madera County in a rural residential subdivision, approximately two miles north of Fresno. The Project is surrounded by agricultural lands, rural residential uses, and water infrastructure.

4.14.2 Impact Analysis

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

No Impact. The Project would install new meters at existing residences, replace distribution mains, refurbish Well No. 2, and provide cathodic protection for the existing water storage tank. The Project improvements would serve the existing residences within the Rolling Hills community. No new services would be connected as part of this Project. Therefore the Project would not encourage population growth directly or indirectly, 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. No housing or habitable structures would be built, nor will any be removed as a part of this Project. Implementation of the Project will not result in displacement of people or existing housing. Therefore, there will be no impact.

4.14.3 Federal Cross-Cutting Topic

Environmental Justice Executive Order 12898

Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, was issued in 1994. The EO directs federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law.

USEPA has developed a mapping and screening tool called EJSCREEN that uses nationally consistent data to identify minority or low-income communities. According to EJSCREEN, the proposed Project site is not in an environmental justice community¹⁸. In addition, the purpose of the Project would be to supply clean, reliable water to residents of the Rolling Hills community. Because the proposed Project would directly benefit the local community only, no disproportional health or environmental effect would be imposed on minority or low income populations. The proposed Project would not conflict with the purpose and objectives of EO 12898.

¹⁸ (Environmental Protection Agency - Environmental Justice Screening and Mapping Tool 2022) accessed March 2022.
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4.15 PUBLIC SERVICES

Table 4-23: 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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.15.1 Baseline Conditions

Fire Protection: The proposed Project area would be served by the Madera County Fire Department, Station 9 (Rolling Hills) located within the Rolling Hills community.

Police Protection: The Project area receives public safety protection provided by the Madera County Sheriff station in the City of Madera.

Schools: Public school services are provided by Golden Valley Unified School District. Stone Creek Elementary in Madera Unified School District is located a half mile north of the Project site and serves the Project area. Stone Creek Elementary is the feeder school for Ranchos Middle School and Liberty High School which also service the Project area and are located approximately 8 miles from the Project site.

Parks: Madera County has several regional parks, as well as State and national parks, national forest, wilderness areas, and recreational lakes. Woodward Regional Park is the closest park, located approximately 5.8 miles south of the Project site.

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?

No Impact. The Project would install water meters, replace a water pipeline, refurbish Well No. 2, and provide cathodic protection for the water storage tank, all of which serve an existing residential development. No new residences are proposed as part of this Project. Therefore, no additional public

services will be required in order to provide police or fire protection, nor educational or recreational opportunities, to the water infrastructure or its beneficiaries. There will be no impact.

4.16 RECREATION

Table 4-24: 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.16.1 Baseline Conditions

Madera County has several regional parks, as well as State and national parks, national forest, wilderness areas, and other resources. The closest park to the Project is Woodward Regional Park, located in the City of Fresno, 2.7-miles southeast of the Project site.

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 proposes to improve existing water infrastructure. It would not increase the demand for recreational facilities or put a strain on existing 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 does not include recreational facilities, nor the construction or expansion of any existing or new recreational facilities. There is no housing or population growth associated with the Project that could result in accelerated substantial physical deterioration of any such facilities. There would be no impact.

4.17 TRANSPORTATION

Table 4-25: 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)??	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.17.1 Baseline Conditions

Madera County’s circulation system consists of a roadway network that is primarily rural in character, with exception of the urbanized area surrounding the City of Madera, and various smaller communities located throughout the county. There are parts of six state highways that pass through Madera County: SR 99, SR 41, SR 49, SR 145, SR 152 and SR 233.

The Project is located in southern Madera County. The Project vicinity is dominated by agricultural farmland plots and Urban and Built-Up Land. State Route 41 is the nearest highway located directly east of the Project site. There are no public improvements proposed along the Project site boundary. Traffic generation after Project implementation would be minimal and dedicated to only maintenance on an as-needed basis.

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 Project site and the surrounding area lacks pedestrian and bicycle facilities. Transit service does not stop near the Project site. Pipeline installation would take place within Avenue 11, Mountain View Drive and Adobe Way. During construction traffic control measures would be used to redirect traffic. Impacts to the existing roadways during construction will be temporary. The Project will thus not conflict with plans, policies, or ordinances addressing the circulation system. Therefore, impacts will be less than significant.

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

Less than Significant Impact. Project operations will not generate additional vehicle miles traveled, as operations and maintenance trips are not anticipated to increase as part of the Project. Project

construction trips will be generated but will be temporary during the Project construction period. 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. No new roadway design features are associated with the Project. As mentioned in Transportation Impact Analysis a and b above, all potential disturbances to roadways would be temporary. Therefore, there would be no impact.

d) Would the project result in inadequate emergency access?

Less than Significant Impact. As mentioned above in Transportation Impact Analysis check list items a, b, and c, the Project does not propose new roadway design features or permanent alterations to roadways. Any lane closures will require adequate noticing and signage to be placed in and near the Project construction area. The operational phase of the Project would have no effect on roadways or emergency access. Therefore, overall potential Project-related impacts to emergency access on local roadways would be considered less than significant.

4.18 TRIBAL CULTURAL RESOURCES

Table 4-26: 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.18.1 Baseline Conditions

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 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.

No Tribes have requested Project notifications from the State Water Board for projects in Madera County. Therefore, the State Water Board did not send AB 52 Project notification letters to tribes. While no tribes

have requested notification pursuant to Public Resources Code section 21080.3.1, the State Water Board is still responsible for making a good faith effort to identify tribal cultural resources in the Project area. The State Water Board required a cultural resources report to be prepared that involved a records search of the California Historical Resources Information System, a Sacred lands File search from the NAHC, a pedestrian survey, and tribal outreach. No tribal cultural resources were identified as a result of the cultural resources investigation.

See Section 4.5 Cultural Resources for more detail on the cultural resources investigation.

4.18.2 Impact Analysis

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
- 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.

No Impact. The State Water Resources Control Board, as the lead agency, has received no formal requests for consultation from California Native American tribes in the Project area pursuant to AB 52.

In addition, as a result of the Cultural Resource Investigation completed in May 2022 contained in **Appendix C**, no tribes identified known tribal cultural resources in the APE or requested consultation on the Project. Additionally, no pre-colonial archaeological or historic-era archaeological remains were identified. No impacts are expected to tribal cultural resources. Should pre-colonial archaeological sites be discovered during construction that could be considered tribal cultural resources, the best management practices outlined in CUL-1 shall be followed.

4.19 UTILITIES AND SERVICE SYSTEMS

Table 4-27: 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4.19.1 Baseline Conditions

The RHWS is comprised of three active wells, one inactive well that is not in use, and one destroyed well located within the Rolling Hills community.

4.19.1.1 Water Supply

The Project lies entirely within the Madera Groundwater Subbasin of the San Joaquin Valley Groundwater Basin.¹⁹ Declines in groundwater basin storage and groundwater overdraft are recurring problems in the Central Valley. Measures for ensuring the continued availability of groundwater to meet demands have been identified and planned in several areas of the county. The measures include groundwater conservation and recharge, and supplementing or replacing groundwater sources for irrigation with surface water.

¹⁹ (State of California Department of Water Resources 2022). Accessed March 15, 2022

4.19.1.2 Wastewater Collection and Treatment

No wastewater is currently generated by the existing facility. The existing residential subdivision is served by individual septic tanks. There are no existing or planned storm drainage systems in the Project area.

4.19.1.3 Landfills

The Mid Valley Disposal and Transfer is the closest landfill located approximately 16 miles south of the Project site. No significant solid waste will be generated during Project construction or operation.

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 itself is a water infrastructure replacement and refurbishment project. Environmental effects from the Project will be temporary or same as existing conditions, and no new or expanded wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities will be required as a result of the Project. There will 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 would refurbish a well that serves the existing community. No new water consumption is anticipated due to the installation of water meters, the installation of pipeline, or the installation of cathodic protection for the water storage tank. There will 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 will not generate wastewater, and thus no wastewater treatment capacity is necessary. There will be no impact.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant Impact. The Project will generate solid waste during the construction process. Project operations are not anticipated to generate additional solid waste than what is already generated. Impacts will be less than significant.

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

Less than Significant Impact. The Project would be required to demonstrate compliance with all Madera County Solid Waste regulations. Impacts will be less than significant.

4.20 WILDFIRE

Table 4-28: 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrollable spread of wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.20.1 Baseline Conditions

The Project is located in southern Madera County, approximately two miles north of the City of Fresno alongside SR 41. The Project site is in a flat urbanized area of the Central San Joaquin Valley. The Project would update existing water infrastructure in the Rolling Hills community. Work would consist of installing new meters, new distribution mains, refurbishing Well No. 2, and providing cathodic protection for the water storage tank. The Project is not considered to be population growth inducing and no habitable structures are being constructed as part of the Project.

According to CalFIRE the Project site is not zoned in a Local Responsibility Area or State Responsibility Area (SRA). The nearest SRA is four miles east of the Project site.

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 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?

No Impact. The Project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones²⁰ and therefore would not interfere with any emergency plans or expose people or structures to any significant risk. The surrounding area is predominantly agricultural and consists of flat and even terrain. There would be no impacts.

²⁰ (California Department of Forestry and Fire Protection - Fire and Resource Assessment Program (FRAP) 2022) Accessed March 2022.

4.21 CEQA MANDATORY FINDINGS OF SIGNIFICANCE

Table 4-29: 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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 with Mitigation Incorporated. The analysis conducted in this IS/MND results in a determination that the proposed Project, with incorporation of mitigation measures, will have a less than significant effect on the environment. The potential for impacts to biological resources from the implementation of the proposed Project will be less than significant with the incorporation of the mitigation measures discussed in **Chapter 5 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 with Mitigation Incorporated. 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 proposed Project will make improvements to an existing well site, add pipelines to the water system infrastructure, and add water meters to improve water quality and reliability. No additional roads would be constructed as a result of the Project, nor would any additional public services be required. The proposed Project is intended to improve water quality and reliability and would not result in direct or indirect population growth. Therefore, implementation of the proposed 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 proposes to make improvements to an existing well site, add pipelines to the water system infrastructure, and add water meters to improve water quality and reliability. The Project in and of itself would not create a significant hazard to the public or the environment. Project implementation would improve water quality. 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 Project in the Rolling Hills community for the State Water Resources Control Board. 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						
Nesting Raptors, Migratory Birds, and Special Status Birds						
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. If all Project activities will occur outside of nesting bird season, no further mitigation is required.	Prior to construction	Once	SWRCB	Submittal of construction schedule to SWRCB	
BIO-2	(Pre-construction Surveys): If activities must occur within nesting bird season (February 1 to September 15), a qualified biologist will conduct pre-construction surveys for Swainson’s Hawk nests onsite and within a 0.5-mile radius. These surveys will be conducted in accordance with the Recommended Timing and Methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley (Swainson’s Hawk Technical Advisory Committee 2000), and the Staff Guidance Regarding Avoidance of Impacts to Tricolored Blackbird Breeding Colonies on Agricultural Fields (California Department of Fish and Wildlife 2015) current guidance. The Swainson’s Hawk survey will not be completed between April 21 to June 10 due to the difficulty of identifying nests during this time of year. The pre-construction survey would also provide a presence/absence survey for all other nesting birds within the APE and an additional 50-foot survey area, no more than seven (7) days prior to the start of construction. All raptor nests would be considered “active” upon the nest-building stage.	Prior to construction	Once	SWRCB	Submittal of pre-construction survey report.	
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	On discovery of active nests or breeding colonies	Once	SWRCB	Verified in writing by a qualified biologist	

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
	question. Active Swainson’s Hawk nests will receive a 0.5-mile buffer, active California Horned Lark nests will receive a 150-foot buffer, and active Tricolored Blackbird nests will receive a 200-foot buffer. Reduced buffer distances for Swainson’s Hawk, California Horned Lark, and Tricolored Blackbird may be appropriate depending on site conditions and ongoing disturbance levels and would be discussed with CDFW, if warranted. 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.					
BIO-4	(ITP): In the event an active Swainson’s Hawk nest, California Horned Lark nest, Tricolored Blackbird, or other nest is detected during surveys and cannot be avoided, consultation with CDFW will be warranted to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP pursuant to Fish and Game Code section 2081, subdivision (b) is necessary to comply with CESA.	On discovery of an active nest that cannot be avoided	Once	SWRCB	Record of ITP submitted to SWRCB.	
California Tiger Salamander						
BIO-5	(Avoidance): The Project’s construction activities will occur, if feasible, 350-feet from suitable aquatic and upland habitat of CTS as identified by a qualified biologist. The Project will install exclusion fencing 350-feet or more from the wetted area and upland habitat in the north-east corner of the APE to ensure California tiger salamanders do not enter the site during construction. Exclusion fencing materials, size, and placement should follow wildlife agency guidelines appropriate for the species.	Prior to construction	Once	SWRCB	Biologist verifies buffer.	
BIO-6	(Pre-construction Survey): If activities must occur within 350-feet of suitable aquatic and upland habitat a qualified biologist will conduct a focused survey in accordance with the <i>USFW Interim</i>	Prior to construction	Once	SWRCB	Submittal of reconnaissance survey.	

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
	<i>Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander</i> (United States Fish and Wildlife Service, 2003) or current guidance. If no California tiger salamanders are observed during the preconstruction survey, then construction activities may begin. If construction is delayed or halted for more than 30 days, another pre-construction survey for special status herpetofauna should be conducted. If the survey results in the identification of a special status species, the qualified biologist should determine if appropriate buffers can be implemented to avoid impacts to the individual(s).					
BIO-7	(Formal Consultation/ITP): In the event CTS are detected during surveys and cannot be avoided, consultation with CDFW will be warranted to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP pursuant to Fish and Game Code section 2081, subdivision (b) is necessary to comply with CESA.	On discovery of CTS that cannot be avoided	Once	SWRCB	Record of ITP submitted to SWRCB.	
Western Pond Turtle						
BIO-8	(Avoidance): The Project's construction activities will occur, if feasible, 350-feet from suitable aquatic and upland habitat of WPT as identified by a qualified biologist. The Project will install exclusion fencing 350-feet or more from the wetted area and upland habitat in the north-east corner of the APE to ensure WPT do not enter the site during construction. Exclusion fencing materials, size, and placement should follow wildlife agency guidelines appropriate for the species.	Prior to construction	Once	SWRCB	Biologist verifies buffer.	
BIO-9	(Pre-construction Survey): If activities must occur within 350-feet of suitable aquatic and upland habitat a qualified biologist will conduct pre-construction surveys for Northwestern Pond Turtles (WPT) within the wetland and 350-feet surrounding	Prior to construction	Once	SWRCB	Submittal of reconnaissance survey.	

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
	it. Pre-construction surveys will be conducted in accordance with the <i>United States Geological Survey Western Pond Turtle (Emys marmorata) Visual Survey Protocol for the Southcoast Ecoregion</i> (United States Geological Survey, 2006) or current guidance. Surveys will be conducted outside of winter months (December–February). If no WPT are observed during the pre-construction survey, then construction activities may begin. If construction is delayed or halted for more than 90 days, another pre-construction basking survey for WPT will be conducted. If the surveys result in the identification of a special status species, the qualified biologist will determine if appropriate buffers can be implemented to avoid impacts to the individual(s) or if further surveys are required to avoid impacts to potential nesting sites.					
BIO-10	(ITP): In the event WPT are detected during surveys and cannot be avoided, consultation with CDFW will be warranted to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP pursuant to Fish and Game Code section 2081, subdivision (b) is necessary to comply with CESA.	On discovery of WPT that cannot be avoided	Once	SWRCB	Record of ITP submitted to SWRCB.	
Giant garter snake						
BIO-11	(Avoidance): The Project’s construction activities will occur, if feasible, 350-feet from suitable aquatic and upland habitat of giant garter snake as identified by a qualified biologist. The Project will install exclusion fencing 350-feet or more from the wetted area and upland habitat in the north-east corner of the APE to ensure giant garter snake do not enter the site during construction. Exclusion fencing materials, size, and placement should follow wildlife agency guidelines appropriate for the species.	Prior to construction	Once	SWRCB	Biologist verifies buffer.	
BIO-12	(Focused Survey): If activities must occur within 350-feet of suitable aquatic and upland habitat a	Prior to construction	Once	SWRCB	Submittal of Focused survey report.	

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
	qualified biologist will conduct a focused survey 30 days prior to the start of construction. Surveys would be conducted according to the USFW <i>Recovery Plan for the Giant Garter Snake (Thamnophis gigas)</i> (United States Fish and Wildlife Service, 2017) or current guidance. If no giant garter snake are observed during the focused survey, then construction activities may begin. If the survey results in the identification of this special status species, a qualified biologist will consult CDFW.					
BIO-13	(Formal Consultation/ITP): In the event giant garter snake is detected during surveys and cannot be avoided, consultation with CDFW will be warranted to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP pursuant to Fish and Game Code section 2081, subdivision (b) is necessary to comply with CESA.	On discovery of giant garter snake that cannot be avoided	Once	SWRCB	Record of ITP submitted to SWRCB.	
Monarch Butterfly and Crotch Bumble Bee						
BIO-14	(Pre-Construction Survey): A qualified biologist will survey the Project work area within seven (7) days prior to the start of Project activities to identify whether over-wintering or foraging habitats for Monarch butterfly or Crotch bumble bee are present on or within 100 feet of the Project work area. If no individuals or suitable habitat is observed, no further mitigation is required.	Prior to construction	Once	SWRCB	Submittal of reconnaissance survey.	
BIO-15	(Visual Surveys): If suitable habitat is identified buffer zones of 100 feet will be provided using exclusion fencing. If habitat cannot be avoided, a qualified biologist will conduct visual surveys for Monarch butterfly between October through May prior to Project activity. If habitat cannot be avoided, a qualified biologist will conduct visual surveys for Monarch butterfly between March 1 to September 1 prior to Project activity. Surveys will not take place when daytime temperatures are below 55 degrees	Prior to construction	Once	SWRCB	Submittal of Visual survey report.	

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
	Fahrenheit. If an individual or colony is observed, no Project activities will occur until CDFW has been consulted.					
BIO-16	(Consultation with CDFW): The qualified biologist will consult with CDFW if a Monarch butterfly individual or a colony is observed. Work will not occur until a plan to protect the Monarch butterfly, including over-wintering colonies, has been submitted and approved in writing by CDFW. The qualified biologist will consult with CDFW if an individual Crotch bumble bee or a nest is observed. Work will not occur until CDFW determines distances for disturbance-free buffers, or a plan to protect the Crotch bumble bee, including over-wintering queens, has been submitted to and approved in writing by CDFW.	On discovery of a Monarch butterfly individual or colony.	Once	SWRCB	Record of consultation submitted to SWRCB.	
Western Spadefoot and California Red-legged Frog						
BIO-17	(Avoidance): The Project's construction activities will occur, if feasible, 350-feet from suitable aquatic and upland habitat for western spadefoot and California red-legged frogs as identified by a qualified biologist. The Project will install exclusion fencing 350-feet or more from the wetted area and upland habitat in the north-east corner of the APE to ensure western spadefoot and California red-legged frogs do not enter the site during construction. Exclusion fencing materials, size, and placement should follow wildlife agency guidelines appropriate for the species. If activities must occur within 350-feet of suitable aquatic and upland habitat a qualified biologist will conduct a focused survey during the known peak breeding months for these species (February-March), prior to the start of construction.	Prior to construction	Once	SWRCB	Biologist verifies buffer.	
BIO-18	(Focused Survey): If activities must occur within 350-feet of suitable aquatic and upland habitat a qualified biologist will conduct a focused survey during the known peak breeding months of this	Prior to construction	Once	SWRCB	Submittal of Focused survey report.	

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
	species (February-March), prior to the start of construction. Surveys would be conducted according to <i>Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog</i> (United States Fish and Wildlife Service, 2005) or current guidance. If no western spadefoot or California red-legged frog adults or larvae are observed during the focused survey, then construction activities may begin. If the survey results in the identification of this special status species, a qualified biologist will consult CDFW to determine if appropriate buffers can be implemented to avoid impacts to individual(s) during construction.					
BIO-19	(Formal Consultation/ITP): In the event western spadefoot and California red-legged frogs are detected during surveys and cannot be avoided, consultation with CDFW will be warranted to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP pursuant to Fish and Game Code section 2081, subdivision (b) is necessary to comply with CESA.	On discovery of western spadefoot and CA red-legged frogs that cannot be avoided	Once	SWRCB	Record of ITP submitted to SWRCB.	

CHAPTER 6 REFERENCES

- California Department of Conservation - Farmland Mapping & Monitoring Program. 2022. *Farmland Mapping & Monitoring Program Important Farmland Categories*. Accessed March 2022. <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx>.
- California Department of Forestry and Fire Protection - Fire and Resource Assessment Program (FRAP). 2022. *California Department of Forestry and Fire Protection - Fire and Resource Assessment Program (FRAP) Fire Hazard Severity Zones*. March. Accessed March 14, 2022. <https://egis.fire.ca.gov/FHSZ/>.
- California Department of Toxic Substances Control Envirostor. 2020. *California Department of Toxic Substances Control EnviroStor*. Accessed March 14, 2022. <https://www.envirostor.dtsc.ca.gov/public/>.
- California Department of Transportation - Scenic Highways. 2022. *California Department of Transportation - State Scenic Highways*. Accessed March 11, 2022. <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>.
- Environmental Protection Agency - Environmental Justice Screening and Mapping Tool. 2022. *Environmental Protection Agency - Environmental Justice Screening and Mapping Tool Version 2.0*. Accessed March 2022. <https://ejscreen.epa.gov/mapper/>.
- Madera County General Plan Background Report. 1995. *Madera County General Plan Background Report*. October 24. Accessed March 2022. <https://www.maderacounty.com/Home/ShowDocument?id=2852>.
- Madera County Municipal Code. 2022. "Madera County Municipal Code Noise Regulations." *Madera County Municipal Code Noise Regulations 9.58.020 General Noise Regulations*. Accessed May 2022. https://library.municode.com/ca/madera_county/codes/code_of_ordinances?nodeId=TIT9PESAMO_VOFAGPUPE_CH9.58NORE_9.58.020GENORE.
- San Joaquin Valley Air Pollution Control District. 2009. *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA*. December 17. Accessed February 22, 2022. <http://www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf>.
- San Joaquin Valley Air Pollution Control District. 2022. *San Joaquin Valley Air Pollution Control District's Rule 9110 is consistent with USEPA 's General Conformity Rule, Determining Conformity of General Federal Actions to State or Federal Implementation Plans (40 CFR, Part 93)*. Accessed May 2022. <http://www.valleyair.org/rules/currentrules/r9110.pdf>.
- State of California Department of Water Resources. 2022. "DWR Bulletin 118 Groundwater Basin Boundary Assessment Tool." *State of California Department of Water Resources DWR Bulletin 118 Groundwater Basin Boundary Assessment Tool*. Accessed May 2022. <https://gis.water.ca.gov/app/bbat/>.
- State of California Water Resources Control Board - Geotracker. 2022. *State Water Resources Control Board Geo Tracker*. Accessed March 14, 2022. <https://geotracker.waterboards.ca.gov/>.

United States Department of Agriculture - NRCS Farmland Protection Policy Act. 2022. *Natural Resources Conservation Services - Farmland Protection Policy Act*. Accessed March 2022. https://www.nrcs.usda.gov/wps/portal/nrcs/detail/?cid=nrcs143_008275.

United States Department of Agriculture. 2022. *Natural Resources Conservation Service - Farmland Protection Policy Act*. Accessed May 2022. https://www.nrcs.usda.gov/wps/portal/nrcs/detail/?cid=nrcs143_008275.

United States Environmental Protection Agency . 2022. *United States Environmental Protection Agency - Sole Source Aquifers*. Accessed May 2022. <https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b>.

United States Environmental Protection Agency. 2022. *United States Environmental Protection Agency - WATERS GeoViewer*. March. Accessed March 2022. <https://www.epa.gov/waterdata/waters-geoviewer>.

Appendix A: CalEEMod Output Files

Appendix B: Biological Evaluation

Appendix C: Cultural Resources

Appendix D: Preliminary Engineering Report