**Public Review Draft**

# Initial Study/Mitigated Negative Declaration

**for the**

# Pajaro/Sunny Mesa Springfield Area Regional Consolidation Project

**Prepared for:**

PAJARO / SUNNY MESA
COMMUNITY SERVICES DISTRICT

**Pajaro/Sunny Mesa Community Services District**

**Prepared by:**

DD&A

**Denise Duffy & Associates, Inc.**

**November 2025**

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## Abbreviations

| Acronym or Abbreviation | Definition |
|---|---|
| 123-TCP | 123-tri-chloro-propane |
| 3CE | Central Coast Community Energy |
| AAQS | Ambient Air Quality Standards |
| AB | Assembly Bill |
| AC(CZ) | Agricultural Conservation (Coastal Zone) |
| Achasta | Achasta Archaeological Services |
| AGSP | Alternative Groundwater Sustainability Plan |
| AMBAG | Association of Monterey Bay Area Governments |
| APE | Area of Potential Effect |
| APNs | Assessor's Parcel Numbers |
| AQMP | Air Quality Management Plan |
| AQTESOLV | AQuifer TEst SOLVer |
| ASBS | Areas of Special Biological Significance |
| BAU | business as usual |
| bgs | Below Ground Surface |
| BMP | Best Management Practice |
| BSC | Building Standards Commission |
| CALFIRE | California Department of Forestry and Fire Protection |
| CalRecycle | California Integrated Waste Management Board |
| CA SRF | California Safe Drinking Water State Revolving Fund |
| Caltrans | California Department of Transportation |
| CAAQS | California Ambient Air Quality Standards |
| CalEEMod | California Emissions Estimator Model |
| CalEPA | California Environmental Protection Agency |
| CalGreen | California Green Building Standards Code |
| California Register | California Register of Historical Resources |
| CAO | Clean-up and Abatement Order |
| CAP(CZ) | Coastal Agricultural Preserve (Coastal Zone) |
| CARB | California Air Resources Board |
| CBC | California Building Code |
| CCAA | California Clean Air Act |
| CCC | California Coastal Commission |
| CCR | California Code of Regulations |
| CDFG | California Department of Fish and Game |
| CDO | Cease and Desist Order |
| CEC | California Energy Commission |
| CEQA | California Environmental Quality Act |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |

| | |
|---|---|
| CESA | California Endangered Species Act |
| CGP | Construction General Permit |
| CGS | California Geological Survey |
| $CH_4$ | Methane |
| CHRIS | California Historic Resources Information System |
| CNDDB | California Natural Diversity Database |
| CNPPA | California Native Plant Protection Act |
| CNPS | California Native Plant Society |
| $CO_2$ | Carbon Dioxide |
| $CO_2e$ | carbon dioxide equivalent |
| County | Monterey County/County of Monterey |
| CPUC | California Public Utilities Commission |
| CRPR | California Rare Plant Ranks |
| CWA | Clean Water Act |
| dB | decibel |
| dBA | A-weighted sound level |
| DD&A | Denise Duffy and Associates, Inc. |
| District | Pajaro/Sunny Mesa Community Services District |
| DOC | California Department of Conservation |
| DOF | Department of Finance |
| DOT | U.S. Department of Transportation |
| DTSC | Department of Toxic Substances Control |
| DWR | Department of Water Resources |
| ESA | Federal Endangered Species Act |
| F/40 | Farmland (Minimum Building Site of 40 acres) |
| FCAA | Federal Clean Air Act |
| FEMA | Federal Emergency Management Agency |
| FHSZ | Fire Hazard Severity Zone |
| FIP | Federal Implementation Plan |
| FIRM | Flood Insurance Rate Maps |
| FMMP | Farmland Mapping and Monitoring Program |
| FPPA | Farmland Protection Policy Act |
| ft/day | feet per day |
| $ft^2$/day | square feet per day |
| gpd/ft | gallons per day per foot |
| gpd/$ft^2$ | gallons per day per square foot |
| gpm | Gallons Per Minute |
| GHG | Greenhouse gas |
| GSA | Groundwater Sustainability Agency |
| GSP | Groundwater Sustainability Plans |
| GSU | 2022 Groundwater Sustainability Update |

| | |
|---|---|
| HFC | hydrofluorocarbons |
| Hp | Horsepower |
| IS/MND | Initial Study/Mitigated Negative Declaration |
| LAFCO | Monterey County Local Agency Formation Commission |
| LCI | Governor's Office of Land Use and Climate Innovation |
| LCP | Local Coastal Program |
| LESA | Land Evaluation Site Assessment |
| LF | linear feet |
| LOP | Local Oversight Program |
| LRA | Local Responsibility Area |
| LUP | Land Use Plan |
| LUST | Leaking Underground Storage Tank |
| M1W | Monterey One Water |
| MBARD | Monterey Bay Air Resources District |
| MBTA | Migratory Bird Treaty Act |
| MCC | Motor Control Center |
| MCL | Maximum Concentration Limit |
| MCSD | Monterey County Sheriff's Department |
| MDR/4(CZ) | Medium Density Residential at four (4) units per acre (Coastal Zone) |
| MHP | Moss Landing Mobile Home Park |
| MLD | Most Likely Descended |
| MMT | Million Metric Ton |
| MNS | MNS Engineers, Inc. |
| MOU | Memorandum of Understanding |
| MRZ | Mineral Resource Zone |
| $MTCO_2e$ | Metric Tons Per Year of $CO_2e$ |
| $N_2O$ | Nitrous Oxide |
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Commission |
| NCCAB | North Central Coast Air Basin |
| NCFPD | North County Fire Protection District |
| NEHRP | National Earthquake Hazards Reduction Program |
| NEPA | National Environmental Policy Act |
| NFIP | National Flood Insurance Program |
| NHTSA | National Highway Traffic Safety Administration |
| NOD | Notice of Determination |
| NOI | Notice of Intent |
| NOAA | National Oceanic and Atmospheric Administration |
| NMFS | National Marine Fisheries Service |
| NOML/NOML area | North of Moss Landing Area |
| NPDES | National Pollutant Discharge Elimination System |

| | |
|---|---|
| NRCS | Natural Resources Conservation Service |
| NRHP/National Register | National Register of Historic Places |
| NWIC | Northwest Information Center |
| OEHHA | Office of Environmental Health Hazard Assessment |
| OSHA | Occupational Safety and Health Administration |
| OWTS | Onsite Wastewater Treatment System |
| PCB | polychlorinated biphenyl |
| PFC | perfluorocarbon |
| PG&E | Pacific Gas and Electric |
| PHD | Peak Hour Demand |
| PLC | Programmable Logic Controller |
| Psi | Pounds Per Square Inch |
| PQP(CZ) | Public/Quasi Public (Coastal Zone) |
| Proposed Project/Project | Pajaro/Sunny Mesa Springfield Area Consolidation Project |
| PSM | Pajaro/Sunny Mesa |
| PVC | Polyvinyl Chloride |
| PVWMA | Pajaro Valley Water Management Agency |
| PWS | Pajaro Water System |
| RC(CZ) | Resource Conservation (Coastal Zone) |
| RCRA | Resources Conservation and Recovery Act |
| ROW | Right-of-way |
| RPS | Renewables Portfolio Standard |
| SB | Senate Bill |
| SCADA | Supervisory Control and Data Acquisition |
| $SF_6$ | sulfur hexafluoride |
| SFHA | Special Flood Hazard Area |
| SGMA | Sustainable Groundwater Management Act |
| SIP | State Implementation Plan |
| SMARA | Surface Mining and Reclamation Act |
| SMWS | Sunny Mesa Water System |
| SPCP | Spill Prevention and Control Plan |
| SR | State Route |
| SRA | State Responsibility Area |
| SWPPP | Stormwater Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |
| SWS | Springfield Water System |
| SWS Project | Springfield Water System Project |
| TAC | Toxic Air Contaminant |
| TAMC | Transportation Agency for Monterey County |
| TSCA | Toxic Substances Control Act |
| UC Davis | University of California Davis |

| | |
|---|---|
| USACE | U.S. Army Corps of Engineers |
| USDA | U.S. Department of Agriculture |
| USEPA | U.S. Environmental Protection Agency |
| USFWS | U.S. Fish and Wildlife Service |
| USGS | U.S. Geological Survey |
| VdB | Vibration Velocity |
| VMT | Vehicle Miles Traveled |
| Williamson Act | California Land Conservation Act of 1965 |
| WM | Waste Management, Inc. |
| YBP | Years Before Present |

## Project Summary

1. **Project Title**: Pajaro/Sunny Mesa – Springfield Area Regional Consolidation Project ("Proposed Project")
2. **Lead Agency:** Pajaro/Sunny Mesa Community Services District
3. **Contact:** Judith Vazquez-Varela, General Manager
   136 San Juan Road
   Royal Oaks, CA 95076
   (831) 722-1389
   judyvazquez@pajarosunnymesa.com
4. **Responsible Agencies**: County of Monterey, Pajaro County Sanitation District, Local Agency Formation Commission of Monterey County, and Monterey Bay Air Resources District,
5. **Prepared By:** Denise Duffy and Associates, Inc. ("DD&A").
6. **Date Prepared:** November 2025
7. **Name of Property Owner/Project Proponent:** Pajaro/Sunny Mesa Community Services District
8. **Project Location:** The Proposed Project is located north of the community of Moss Landing, south of the City of Watsonville, and near the community of Pajaro. Both Moss Landing and Pajaro are rural, low-density residential areas located in unincorporated Monterey County ("County"). Land uses of adjacent properties consist mainly of agricultural parcels, residential parcels, state highways, and County rights-of-way ("ROWs"). The Proposed Project area consists of the existing and future service areas of the Pajaro Water System ("PWS"), the Sunny Mesa Water System ("SMWS"), and the Springfield Water System ("SWS"). In addition, the Proposed Project area includes the North of Moss Landing Area ("NOML" or "NOML area"), which contains 77 identified households with 34 houses sourcing water from two (2) state regulated small water systems and nine (9) locally regulated small water systems, as well as 43 individual households reliant on private domestic wells. State Route ("SR") 1 and Salinas Road provide regional access to the Proposed Project area.
9. **Assessor's Parcel Number(s):** See **Table 1**.
10. **Acreage of Project Disturbance:** 57.3 acres
11. **Project Description:** The Proposed Project is a two (2)-phased project consisting of the consolidation of the PWS, SMWS, and SWS, as well as the various water connections in the NOML area into a single water system to be owned and operated by the Pajaro/Sunny Mesa Community Services District ("District"). The First Phase of the Proposed Project is anticipated to be funded by the State Water Resources Control Board ("SWRCB") Expedited Drinking Water Grant and would consist of annexation of parcels into the District's service area, land acquisition and easements, an Iron and Manganese Treatment System at the existing District office, consolidation pipelines (Transmission Mains) connecting the PWS to the SMWS and the SMWS to the SWS, Transmission Pump Station to convey water from PWS to SMWS, rehabilitation of the PWS' existing 600,000 gallon welded steel water storage tank, electrical upgrades to the Sunny Mesa tank site, conversion of SMWS Wells No. 1 and No. 2 to standby-only use, radio meter upgrades, and installation of a Supervisory Control and Data Acquisition ("SCADA") system. The First Phase of the Proposed Project is anticipated to be funded through the State Water Resources Control Board ("SWRCB") Expedited Drinking Water Grant Program. The Second Phase of the Proposed Project is anticipated to be funded by the California Safe Drinking Water State Revolving Fund ("CA SRF") funds from the SWRCB and would

consist of the installation of the Springfield Expansion Distribution Main and the Bluff/Jensen Distribution Main, construction of the Bluff/Jensen tank and pump station, and installation of lateral service connections located on private property. The First Phase of the Proposed Project has been designed so that it could operate as a standalone water system in the event that the Second Phase of the Proposed Project is not funded or otherwise delayed. Once operational, the Proposed Project is anticipated to serve approximately 967 total connections. The Proposed Project includes approximately 46,000 linear feet ("LF") of potable watermains between both phases, and a total of 235,000 LF of total pipeline when including service laterals and appurtenances. The pipeline infrastructure would include pipelines of six (6), eight (8), and 10-inch diameters. The Proposed Project would primarily be supplied water from three (3) sources, comprised of Pajaro Wells No. 1 and No. 2 and Springfield Well No. 2. Additionally, SMWS Wells No. 1 and No. 2 would be retained as standby sources of water for the Proposed Project, for an overall total of five (5) water sources. In addition, the Proposed Project includes additional infrastructure improvements at the existing PWS Water Storage Tank and Sunny Mesa Tank Site to facilitate O&M of the new water system.

12. **General Plan Designation:** The North Monterey County Area Plan component of the 2010 Monterey County General Plan governs the inland portions of the Proposed Project area. The North County Land Use Plan ("LUP")/Local Coastal Program ("LCP") of the 1982 Monterey County General Plan governs the Coastal Zone portion of the Proposed Project area. The Proposed Project components would be located on multiple parcels with Plan Designations under the LCP (for Coastal Zone parcels) and the North Monterey County Area Plan component of the 2010 Monterey County General Plan (for inland parcels) that include Public/Quasi Public, Agricultural Conservation, and Resource Conservation. The parcels served by the Proposed Project carry various Plan Designations under the LCP that include Agricultural Preservation, Wetlands and Coastal Strands, and Agricultural Conservation, Public/Quasi Public.
13. **Zoning District:** The Proposed Project components would be located on multiple parcels with zoning designations that include Farmland (Minimum Building Site of 40 acres) ("F/40"), Agricultural Conservation (Coastal Zone) ("AC(CZ)"), and Coastal Agricultural Preserve (Coastal Zone) ("CAP(CZ)"). The parcels served by the Proposed Project carry various zoning designations including CAP(CZ), Resource Conservation (Coastal Zone) ("RC(CZ)"), AC(CZ), Public/Quasi Public (Coastal Zone) ("PQP(CZ)"), and Medium Density Residential at four (4) units per acre (Coastal Zone) ("MDR/4(CZ)").

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# Chapter 1. Introduction and Project Description

## 1.1 INTRODUCTION

The Pajaro/Sunny Mesa Community Services District ("District") prepared this Initial Study/Mitigated Negative Declaration ("IS/MND") to evaluate the potential environmental effects associated with the Pajaro/Sunny Mesa Springfield Area Consolidation Project ("Project" or "Proposed Project"), located in northern unincorporated Monterey County, California. The District prepared this document in accordance with the California Environmental Quality Act ("CEQA"), Public Resources Code Section 21000 et. Seq., and the State CEQA Guidelines, California Code of Regulations ("CCR") Section 15000 et. Seq. The purpose of this IS/MND is to provide clear, objective information regarding the potential environmental consequences of the Proposed Project to the decision makers considering the Proposed Project.

The District is acting as the Lead Agency pursuant to CEQA Guidelines Section 15050(a). As the Lead Agency, the District prepared this IS/MND pursuant to CEQA Guidelines Section 15063, Sections 15070 and 15152. The District will circulate this IS/MND for agency and public review during a 30-day public review period, as required pursuant to CEQA Guidelines Section 15073. The District will consider all comments raising a substantive environmental issue under CEQA as part of the deliberative process in accordance with CEQA Guidelines Section 15074.

The District is applying for funding through the State Water Resources Control Board ("SWRCB") Expedited Drinking Water Grant for the First Phase of the Proposed Project and California Safe Drinking Water State Revolving Fund ("CA SRF") funding through the State Water Resources Control Board ("SWRCB") for the Second Phase of the Proposed Project. Therefore, the Proposed Project requires a CEQA Plus review. CEQA Plus incorporates federal National Environmental Policy Act ("NEPA") cross-cutting environmental regulations in addition to the standard CEQA requirements. The Proposed Project must, therefore, comply with the following federal environmental laws: Federal Endangered Species Act ("ESA"); Magnuson-Stevens Fishery Conservation and Management Act, National Historic Preservation Act; Federal Clean Air Act ("FCAA"); Clean Water Act ("CWA"); Wetland Protection Executive Order 11990; Farmland Protection Policy Act ("FPPA"); Coastal Zone Management Act; Coastal Barriers Resources Act, Wild and Scenic Rivers Act; Floodplain Management Executive Order 11988; Migratory Bird Treaty Act ("MBTA"), Safe Drinking Water Act, and applicable Environmental Justice regulations.

Publication of this IS/MND marks the beginning of a 30-day public review and comment period. During this period, the IS/MND will be available to local, state, and federal agencies and to interested organizations and individuals for review. Written comments concerning the environmental review contained in this IS/MND during the 30-day public review period should be sent to:

Pajaro/Sunny Mesa Community Services District
136 San Juan Road
Royal Oaks, CA 95076
Attn: Judith Vazquez-Varela, General Manager

This IS/MND and all documents referenced in it are available for public review at the District's offices located at the above address. Following the conclusion of the public review period, the District will consider the adoption of the IS/MND for the Proposed Project at a regularly scheduled public hearing. The District shall consider the IS/MND together with any comments received during the public review process. Upon adoption of the IS/MND, the District may proceed with approval actions for the Proposed Project. If the District approves the Project, the District will file a Notice of Determination ("NOD"),

which will be available for public inspection and posted within 24 hours of receipt at the County Clerk's Office for 30 days. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA (CEQA Guidelines Section 15075(g)).

The District prepared the following section consistent with the requirements of CEQA Guidelines Section 15124 to the extent that it applies to the Proposed Project. Additionally, the information contained in this section has also been prepared to satisfy the applicable CEQA Plus requirements, as stated above. The following sections provide a discussion of key background details related to the Proposed Project, including Project location, components, site and area characteristics, and applicable regulatory requirements.

## 1.2 BACKGROUND

Water service in the project area is primarily provided by three (3) public water systems owned and operated by the District. The District currently has six (6) full-time staff holding water system operator certifications. These systems are the Pajaro Water System ("PWS"), the Sunny Mesa Water System ("SMWS"), and the Springfield Water System ("SWS"). The PWS has approximately 463 active connections, consisting of 358 residential connections and 105 commercial/industrial connections. The SMWS has approximately 268 active connections, consisting of 257 residential connections and 11 commercial connections. The SWS is currently involved in a design and construction project to expand the service area and improve the system reliability and water quality. The improved system will serve 161 residential connections and two (2) commercial/industrial connections. These improvements were part of a separate project and are not part of the Proposed Project. The Proposed Project would add a further 127 (22 individual homes and 105 mobile homes) connections to the SWS.

In addition, the NOML area includes 77 households that are dependent on two (2) state regulated water systems, nine (9) locally regulated small water systems, and individual private domestic wells. These water sources face various issues related to water quality, water supply reliability, and vulnerabilities to failure, as described in further detail below. The Proposed Project is necessary to address long-standing contamination and vulnerability within the PWS, SMWS, SWS, and NOML systems. The existing PWS has two (2) sources of water supply, but only one currently meets potable drinking water standards and the other is susceptible to service disruptions during flood events. The SMWS operates two (2) active wells, both of which exceed the previous and proposed maximum contaminant level (MCL) for Hexavalent Chromium (10 µg/L). The SWS, following a planned improvement project, will have only a single potable supply source. In the NOML area, drinking water wells have elevated levels of nitrate, 1,2,3-TCP, and other contaminants. The existing water systems, specific contamination issues and improvements necessary to address these concerns are fully described in **Section 1.5 Existing Facilities**.

## 1.3 PROJECT LOCATION

The Proposed Project, described below, is located north of the community of Moss Landing in northern unincorporated Monterey County. Regional access to the Project area is provided primarily from SR 1 and Salinas Road. The Moss Landing and Pajaro communities are rural, low-density residential areas located north of Moss Landing and south of Watsonville in unincorporated Monterey County. Land uses consist mainly of agricultural parcels, residential parcels, state highways, and County ROWs. The Proposed Project area consists of the existing and proposed future service areas of the PWS, the SMWS, and the SWS. In addition, the Proposed Project area includes the NOML area, which contains 77 identified households with 34 houses sourcing water from two (2) state regulated small water systems and nine (9) locally regulated small water systems, as well as 43 individual households reliant on private domestic wells. The Proposed Project would provide water service to connections located on the

following Assessor's Parcel Numbers ("APNs") as identified in **Table 1**. The Proposed Project components would be located on the APNs identified in **Table 2**. **Table 3** identifies whether components of the Proposed Project are located in the Coastal Zone, inland areas, or a mix of both. **Figure 1** shows the regional location of the Proposed Project. **Figures 2a** and **2b** show the aerial view of the Proposed Project area. **Figure 3** shows the land uses within the Proposed Project area.

**Table 1**
**New Project APNs to be Served by Proposed Project**

| Project APNs | Project APNs | Project APNs |
|---|---|---|
| 117-032-001-000 | 117-031-004-000 | 117-031-005-000 |
| 117-031-006-000 | 117-032-002-000 | 117-032-003-000 |
| 117-032-004-000 | 117-032-005-000 | 117-033-003-000 |
| 412-032-013-000 | 117-033-005-000 | 117-033-004-000 |
| 117-031-014-000 | 117-043-026-000 | 117-043-013-000 |
| 117-043-014-000 | 117-043-015-000 | 117-043-032-000 |
| 117-042-005-000 | 117-042-006-000 | 117-043-006-000 |
| 117-043-010-000 | 117-043-022-000 | 117-043-019-000 |
| 117-043-003-000 | 117-043-029-000 | 117-043-023-000 |
| 117-041-017-000 | 117-041-012-000 | 117-041-011-000 |
| 117-041-016-000 | 117-042-010-000 | 117-042-009-000 |
| 413-012-014-000 | 413-013-001-000 | 413-031-001-000 |
| 117-021-008-000 | 117-052-023-000 | 117-022-002-000 |
| 117-021-013-000 | 412-032-011-000 | |

Source: CWC, 2024

**Table 2**
**Project APNs Where Proposed Project Components Would be Located**

| Project APN | Proposed Project Component |
|---|---|
| 117-351-032-000 | Pajaro Well #1 Site<br>Iron & Manganese Treatment Plant |
| 117-263-002-000, 117-263-006-000, 117-263-006-000 | Pajaro Tank Site |
| 117-121-003-000, 117-121-004-000 (lateral relocation) | SMWS Well Site/<br>Transmission Booster Pump Station |
| 117-191-004-000 | Sunny Mesa Tank Site |
| 117-022-002-000, 117-021-008-000, 117-021-013-000, and 412-032-011-000 | Pipeline Easements |
| 117-033-005-000 | Bluff/Jensen Tank and Pump Station site |

Source: MNS, 2024




Title: **Regional Map**

| | |
|---|---|
| Date | 7/8//2025 |
| Scale | N/A |
| Project | 2023.47 |


Monterey | San Jose
**Denise Duffy and Associates, Inc.**
Environmental Consultants Resource Planners
947 Cass Street, Suite 5
Monterey, CA 93940
(831) 373-4341


Figure **1**




Title:

# Aerial Map

Date 7/1/2025
Scale N/A
Project 2023.47

Monterey | San Jose
**Denise Duffy and Associates, Inc.**
Environmental Consultants Resource Planners
947 Cass Street, Suite 5
Monterey, CA 93940
(831) 373-4341

Figure
2a



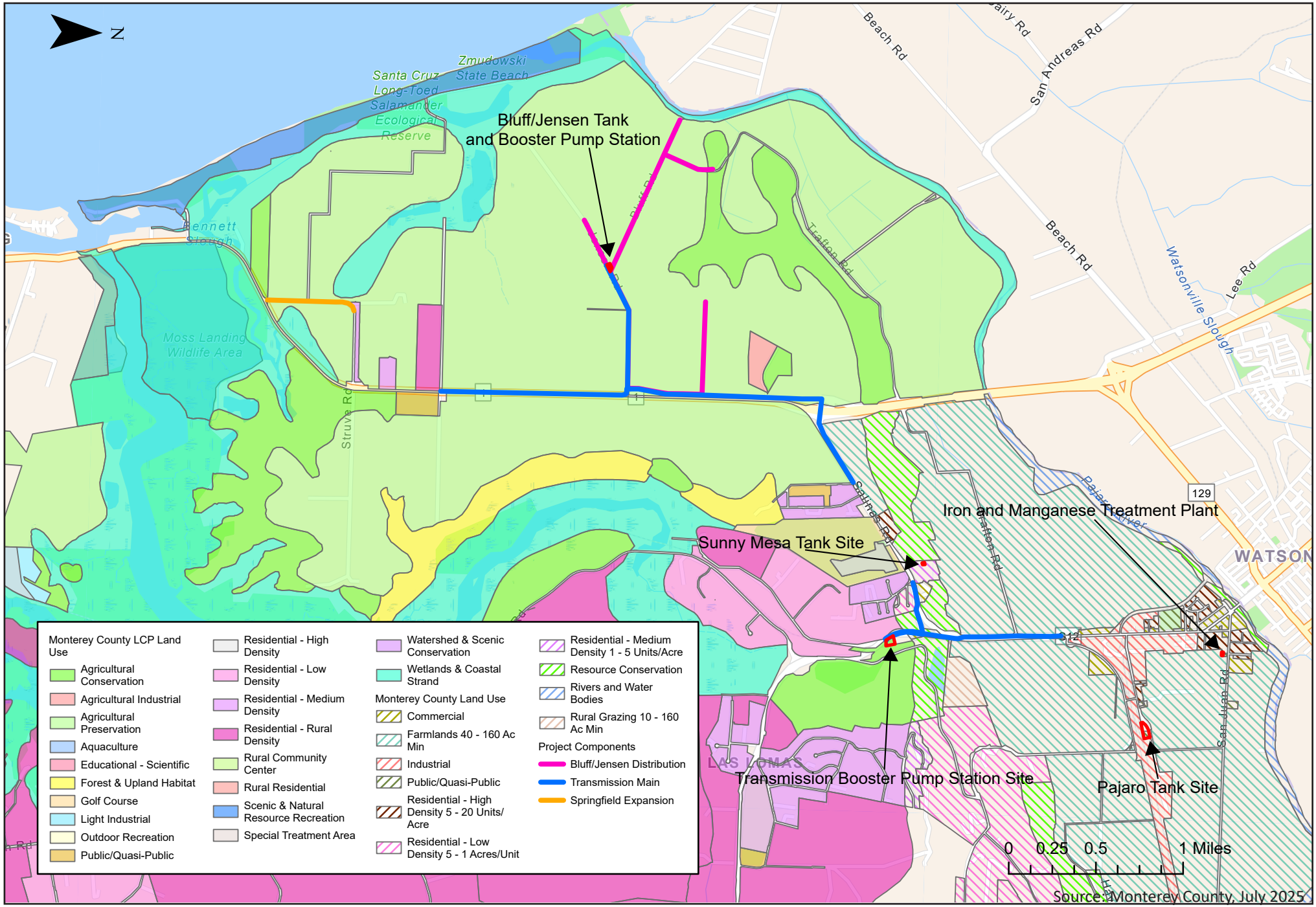

Title:

# Aerial Map

| | |
|---|---|
| Date | 7/1/2025 |
| Scale | N/A |
| Project | 2023.47 |

Monterey | San Jose
**Denise Duffy and Associates, Inc.**
Environmental Consultants Resource Planners
947 Cass Street, Suite 5
Monterey, CA 93940
(831) 373-4341

Figure
2b




Title:

# Land Use Map

| | |
|---|---|
| Date | 7/1/2025 |
| Scale | N/A |
| Project | 2023.47 |


Monterey | San Jose
**Denise Duffy and Associates, Inc.**
Environmental Consultants Resource Planners
947 Cass Street, Suite 5
Monterey, CA 93940
(831) 373-4341


Figure 3

**Table 3**
**Project Component Locations in Relation to Coastal Zone**

| Proposed Project Component | Located Within Coastal Zone? |
|---|---|
| Pajaro Well #1 Site<br>Iron & Manganese Treatment Plant | No[1] |
| Pajaro Tank Site | No[1] |
| SMWS Well Site/<br>Transmission Booster Pump Station | Yes[2] |
| Sunny Mesa Tank Site | No[1] |
| Pipeline Easements | Yes[2] |
| Bluff/Jensen Tank and Pump Station site | Yes[2] |
| Pipelines | Partially |
| Service Area Connections | Yes[2] |

Applicable Regulatory Plans
[1] 2010 Monterey County General Plan, North County Area Plan
[2] 1982 Monterey County General Plan, North County Land Use Plan/Local Coastal Program

## 1.4 SURROUNDING LAND USES AND SETTING

The Proposed Project is located in an area consisting primarily of agricultural and low-density residential uses located north of the unincorporated community of Moss Landing. The Proposed Project components would be located in multiple parcels with Plan Designations under the LCP (for Coastal Zone parcels) that include Public/Quasi Public, Agricultural Conservation, and Resource Conservation. The parcels served by the Proposed Project carry various Plan Designations under the North Monterey County Area Plan (for inland parcels) that include Agricultural Preservation, Wetlands and Coastal Strands, Agricultural Conservation, and Public/Quasi Public.

## 1.5 EXISTING FACILITIES

### Pajaro Water System

The PWS supplies water to approximately 463 connections (358 residential and 105 commercial/industrial connections) and a population of approximately 6,500 people within the unincorporated community of Pajaro and the surrounding area. This service area is located on the southern bank of the Pajaro River, south of the City of Watsonville. The PWS provides water service to single-family and multi-family residential, agricultural, institutional, irrigation, fire, and commercial customers. The primary components of the PWS consist of:

- A single primary groundwater well (Pajaro Well No. 2) located near the intersection of Railroad Avenue and Allison Road. Pajaro Well No. 2 has a capacity of 1,500 gallons per minute (“gpm”);
- Two (2) above-ground 600,000-gallon water storage tanks (one (1) welded and one (1) bolted) located at the Pajaro Well No. 2 site;
- A booster pump system consisting of two (2) hydropneumatics tanks (with capacities of 8,000 gallons and 15,000 gallons) and two (2) canned vertical turbine pumps (with capacities of 1,500 gpm and 2,500 gpm) located at the Pajaro Well No. 2 site;
- A single standby groundwater well (Pajaro Well No. 1) located at the District’s office at 136 San Juan Road. Pajaro Well No. 1 has a capacity of 500 gpm; and

- A network of potable water distribution piping, primarily composed of four (4) to 10-inch diameter polyvinyl chloride ("PVC") pipes, and copper and polyethylene service laterals.

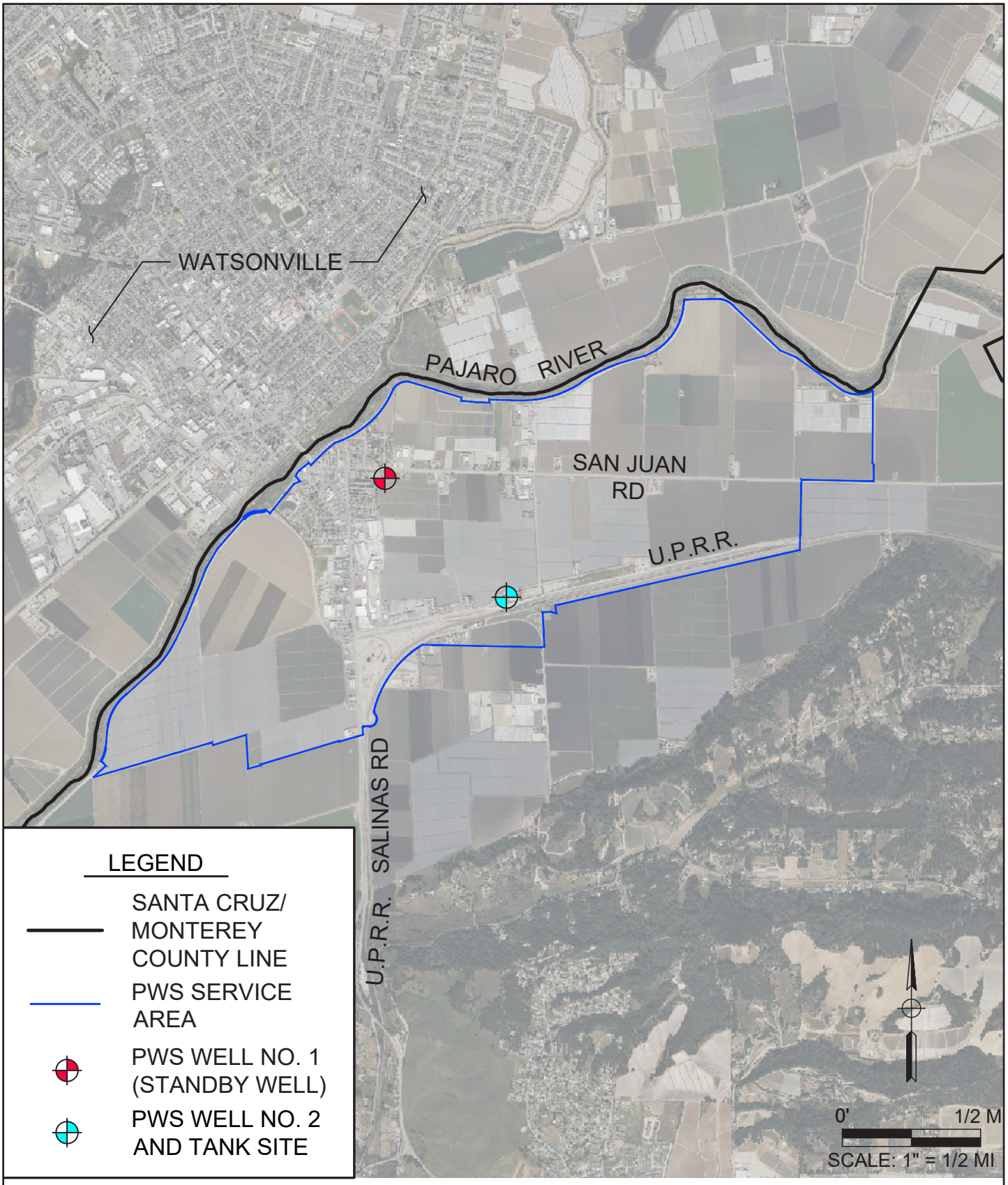
Pajaro Well No. 1 has historically produced water with iron concentrations of 666 µg/ml and manganese concentrations of 308 µg/ml, which exceed their respective maximum concentration limits ("MCLs") of 300 µg/ml and 50 µg/ml. As a result, the District does not currently utilize Pajaro Well No. 1 for regular operations of the PWS. **Figure 4a** shows the PWS service area and major existing facilities.

**Sunny Mesa Water System**

The SMWS supplies water to approximately 268 connections (257 residential and 11 commercial connections) and a population of approximately 880 people within the unincorporated community of Royal Oaks. The SMWS service area is bounded by Salinas Road to the north, Elkhorn Road to the east, Elkhorn Slough to the south, and SR 1 to the west. The primary components of the SMWS consist of:

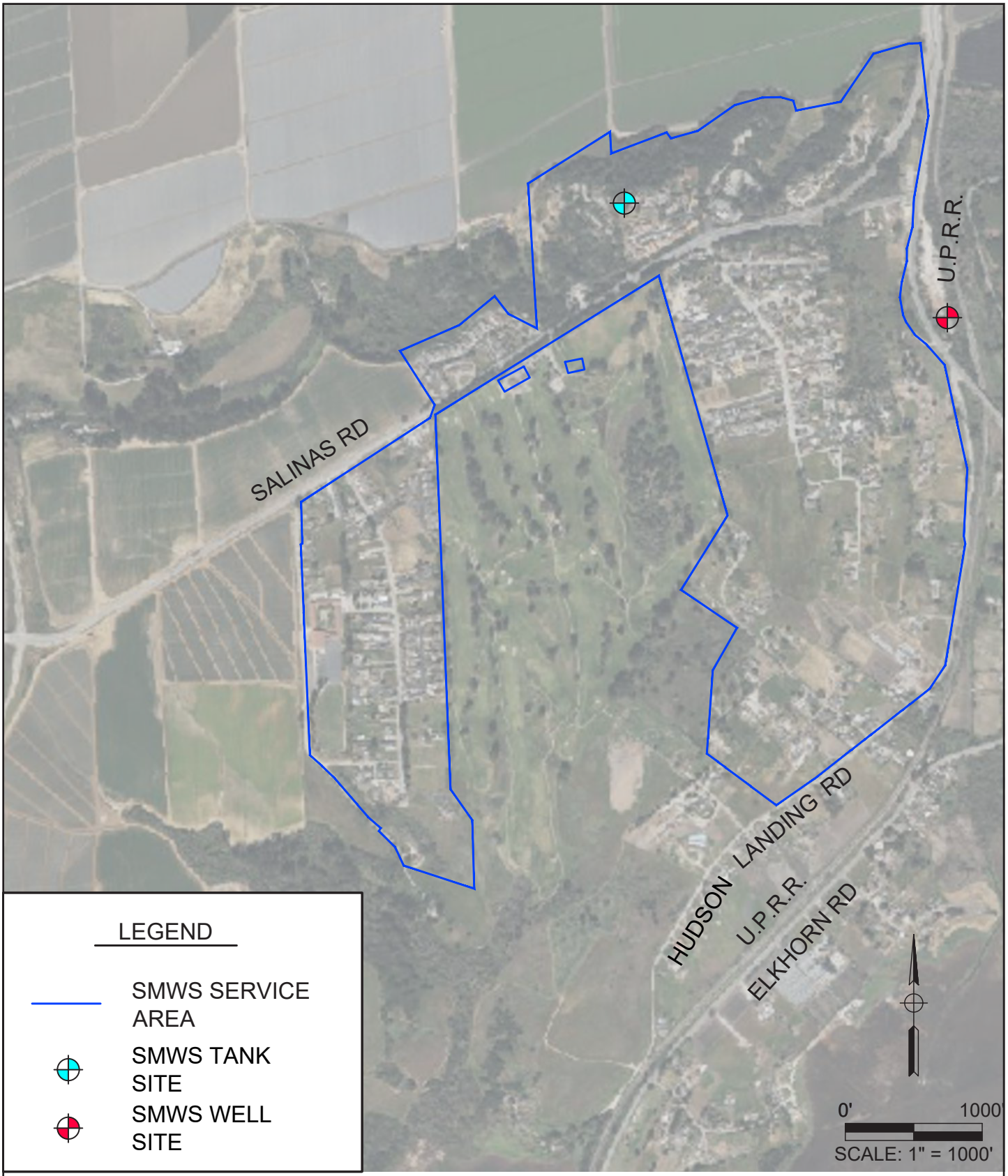
- Two (2) groundwater wells (SMWS Well No. 1 and SMWS Well No. 2) located on a District-owned parcel (the SMWS well site) located at the intersection of Elkhorn Road and Hudson Landing Road;
    - SMWS Well No. 2 has a capacity of 220 gpm and is the primary source of water for the SMWS. SMWS Well No. 2 failed due to flooding events in 2023 but has been restored to service. SMWS Well No. 2 remains susceptible to failure by flooding due to its location and is nearing the end of its useful operating life.
    - SMWS Well No. 1 has a capacity of 375 gpm and is the secondary source of water for the SMWS, primarily used in the summer season when water demand is higher. SMWS Well No. 1 includes a sand removal system. SMWS Well No. 1 has experienced a casing failure and is offline.
- A sodium hypochlorite injection system located immediately downstream of the SMWS Well No. 2 discharge (following the conjunction with the discharge from SMWS Well No. 1);
- A 200,000 gallon welded steel water storage tank located on Silver Stone Street;
- A booster pump station, including a 7,500 gallon hydropneumatic and two (2) booster pumps, with an operating pressure range of 28 to 32 pounds per square inch ("psi"), and;
- A network of potable water distribution piping, primarily composed of six (6) to 12-inch diameter PVC pipes, and copper service laterals.

SMWS Well No. 1 has historically produced water with Hexavalent chromium concentrations ranging from 9.6 to 18.0 µg/L and averaging 15 µg/L, which exceeds the MCL of 10 µg/L. In addition, SMWS Well No. 2 also produces water exceeding this MCL, ranging from 7.1 to 15.0 µg/L and averaging 12 µg/L. **Figure 4b** shows the SMWS service area and major existing facilities.




Source: MNS Engineers, July 2024

| | | | | |
|---|---|---|---|---|
| Title: Existing Service Area - Pajarao Water System Service Area Map | Date 8/28/2024<br>Scale N/A<br>Project 2023.47 | Monterey \| San Jose<br>**Denise Duffy and Associates, Inc.**<br>Environmental Consultants Resource Planners<br>947 Cass Street, Suite 5<br>Monterey, CA 93940<br>(831) 373-4341 | | Figure 4a |




Source: MNS Engineers, July 2024

| | | | | |
|---|---|---|---|---|
| Title: Existing Service Area - Sunny Mesa Water System Service Area Map | Date 8/28/2024<br>Scale N/A<br>Project 2023.47 | | Monterey \| San Jose<br>**Denise Duffy and Associates, Inc.**<br>Environmental Consultants Resource Planners<br>947 Cass Street, Suite 5<br>Monterey, CA 93940<br>(831) 373-4341 | Figure<br>4b |

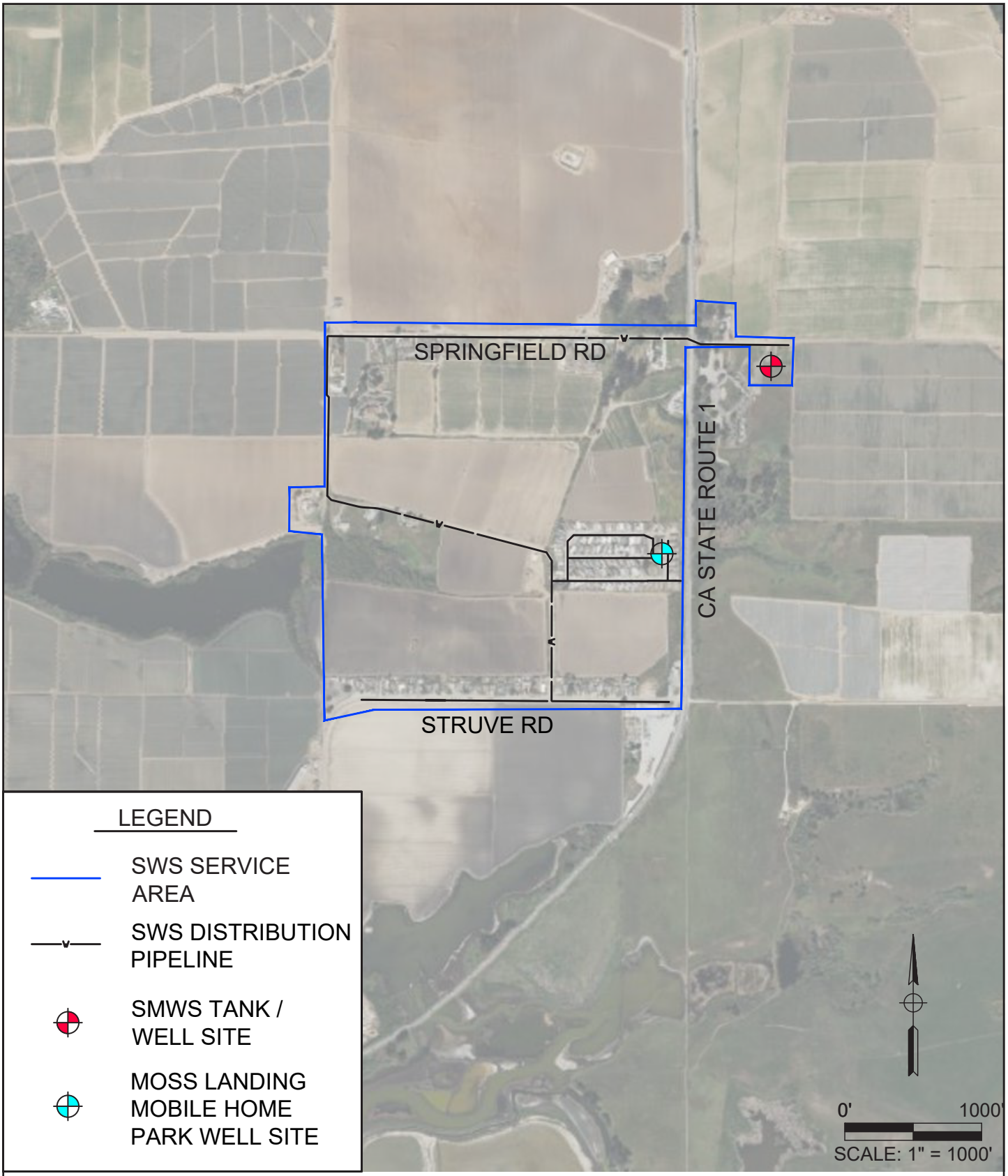
**Springfield Water System**

The SWS supplies water to approximately 32 residential connections and two (2) commercial connections located along Struve Road. The County of Monterey Health Department issued compliance orders in 2017 and 2019 to the SWS regarding elevated nitrate levels and 123-tri-chloro-propane ("123-TCP") contamination, respectively. The primary components of the SWS consist of a single shallow well (Springfield Well No. 1), which has had documented water quality problems for nitrate concentrations and other contaminants. The District is currently implementing the Springfield Water System Project ("SWS Project"), a project to improve and expand the SWS system, which began construction in early 2025.[1] The revised SWS will consist of:

- Equipping Springfield Well No. 2, located at the former Moss Landing Middle School site, with the following components and improvements:
    - a new submersible well pump;
    - distribution piping, valves, and appurtenances;
    - chlorination facilities;
    - two (2) new 110,000-gallon bolted steel water storage tanks;
    - a permanent emergency backup generator;
    - new booster pump station including a hydropneumatic tank and four (4) pumps to provide fully redundant domestic and fire service;
    - new electrical and communications equipment;
    - civil site improvements and security improvements;
    - new building to house chemical dosing facilities and electrical equipment; and
    - other miscellaneous site improvements.
- Expanded water distribution infrastructure to serve existing SWS customers, as well as 22 individual residential connections located along Springfield Road, and 105 mobile homes located at the adjacent Moss Landing Mobile Home Park ("MHP");
- Destruction of Springfield Well No. 1 and the existing well at the MHP site; and
- Replacement of the existing SWS distribution system consisting of 12,500 LF of six (6) and eight (8) inch water mains located in Springfield Road, Struve Road, and easement areas located within private property and access roads. New water laterals and service meters would be installed to provide connection to each residence added to the SWS system.

**Figure 4c** shows the SWS service area and major existing facilities.

[1] The SWS project is not included as part of the improvements identified as part of the Proposed Project.




Source: MNS Engineers, July 2024

| | | | | |
|---|---|---|---|---|
| Title: Existing Service Area - Springfield Water System Service Area Map | Date 8/28/2024<br>Scale N/A<br>Project 2023.47 | | Monterey \| San Jose<br>**Denise Duffy and Associates, Inc.**<br>Environmental Consultants Resource Planners<br>947 Cass Street, Suite 5<br>Monterey, CA 93940<br>(831) 373-4341 | Figure 4c |

**North of Moss Landing Area**

The NOML area consists of approximately 77 households, defined in two (2) distinct areas as depicted in **Figures 2a** and **2b**. The Bluff/Jensen area consists of households located in proximity to Bluff Road and Jensen Road in the northern portion of the NOML. The Springfield expansion area consists of the remaining households located to the west of the SWS service area. These include 34 households sourcing water from two (2) state regulated small water systems and nine (9) local small water systems (see **Table 4**). The remaining 43 households are reliant on private domestic wells.

**Table 4**
**Water Systems Included in the Proposed Project**

| System Name | Water System Type | Service Connections | Estimated Population Served |
|---|---|---|---|
| Bluff Road Water System No. 2 | Local Small | 3 | 20 |
| Bluff Road Water System No. 3 | State Small | 6 | 13 |
| Bluff Road Water System No. 4 | Local Small | 3 | 4 |
| Jensen Road Water System No. 1 | State Small | 6 | 34 |
| Jensen Road Water System No. 2 | Local Small | 4 | 16 |
| Salinas Road Water System No. 14 | Local Small | 3 | 12 |
| Springfield Road Water System No. 1 | Local Small | 2 | 21 |
| Springfield Road Water System No. 2 | Local Small | 2 | 8 |
| Springfield Road Water System No. 3 | Local Small | 2 | 10 |
| Springfield Road Water System No. 4 | Local Small | 5 | 35 |
| Trafton Road Water System No. 7 | Local Small | 4 | 6 |

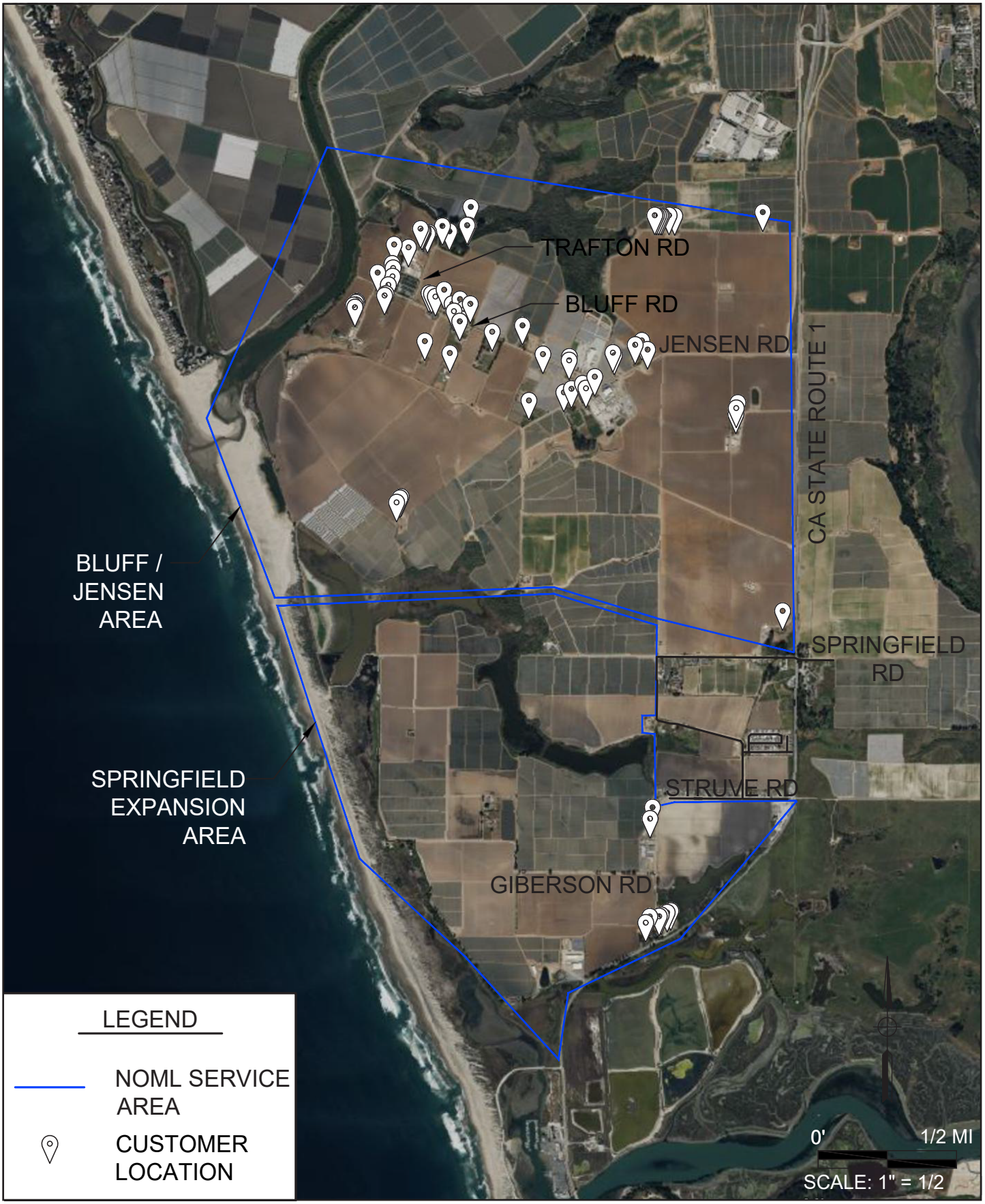
Source: MNS, 2024

Many of the wells in the NOML area have produced water with elevated levels of multiple contaminants including nitrates and 123-TCP. In addition, three (3) of the small water systems are currently out of compliance for exceeding the MCLs for arsenic and nitrates. These wells also face issues due to seawater intrusion due to their proximity to the Pacific Ocean.

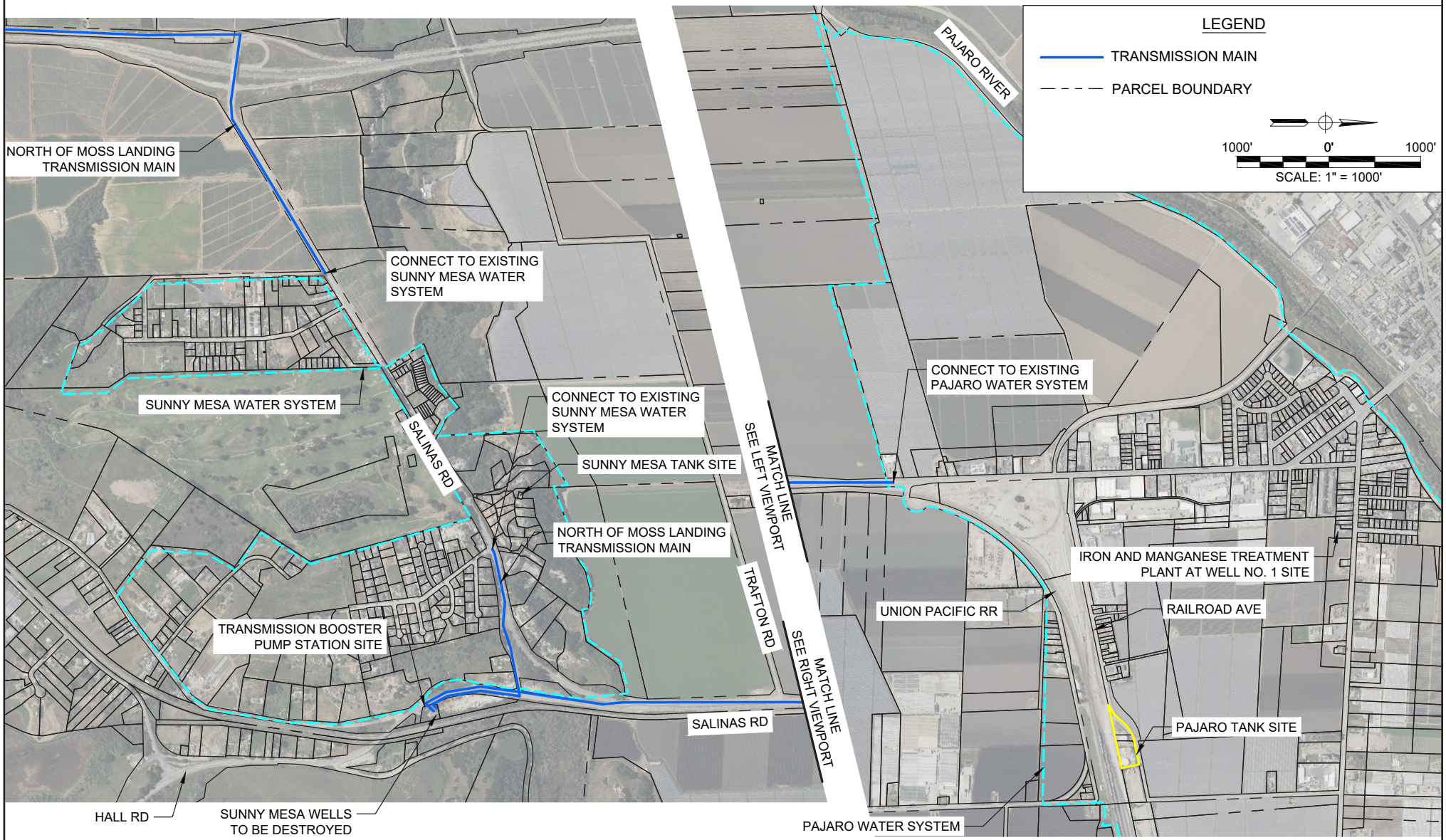
**Figure 4d** shows the NOML service area and major existing facilities.

## 1.6 PROPOSED PROJECT

The Proposed Project is a two (2)-phased Project consisting of the consolidation of the PWS, SMWS, and SWS, as well as the various water connections in the NOML area into a single water system, which the District would own and operate. The First Phase of the Proposed Project is anticipated to be funded by the State Water Resources Control Board ("SWRCB") Expedited Drinking Water Grant and would consist of annexation of parcels into the District's service area, Land Acquisition and Easements, an Iron and Manganese Treatment System at the existing District offices, Consolidation Pipelines (Transmission Mains) connecting the PWS to the SMWS and the SMWS to the SWS, Transmission Pump Station to convey water from PWS to SMWS, rehabilitation of the welded steel PWS Tank, conversion of SMWS Wells No. 1 and No. 2 to standby-only operation, Radio Meter Upgrades, and installation of a SCADA system. The Second Phase of the Proposed Project would be funded by CA SRF funds from the SWRCB and would consist of the Springfield Expansion Distribution Main, the Bluff/Jensen Distribution Main, Bluff/Jensen Tank and Pump Station, and lateral service connections located on private property. The District designed the First Phase of the Proposed Project to operate as a standalone water system in the event that the Second Phase of the Proposed Project is not funded or otherwise delayed. **Figures 5a** and **5b** show the overall components of the Proposed Project.




| | | | | |
|---|---|---|---|---|
| Title: Existing Service Area - Area North of Moss Landing Water Service Map | Date 8/1/2025<br>Scale N/A<br>Project 2023.47 | | Monterey \| San Jose<br>**Denise Duffy and Associates, Inc.**<br>Environmental Consultants Resource Planners<br>947 Cass Street, Suite 5<br>Monterey, CA 93940<br>(831) 373-4341 | Figure 4d |




Source: MNS Engineers, April 2025

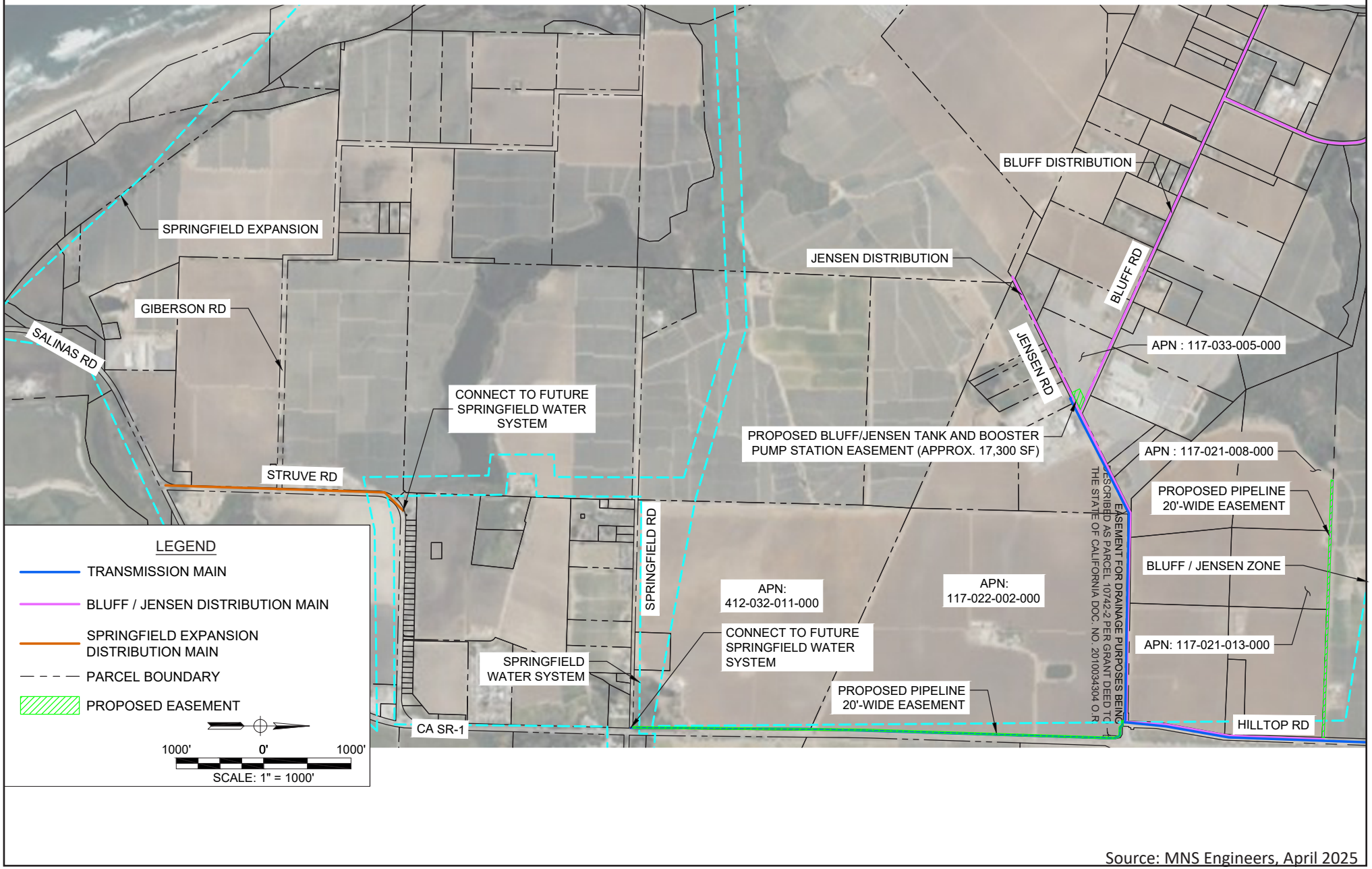
Title:

# Proposed Water System Consolidation

| | |
|---|---|
| Date | 7/1/2025 |
| Scale | N/A |
| Project | 2023.47 |


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Figure
5a




Source: MNS Engineers, April 2025

Title:

# Proposed Water System Consolidation

| | |
|---|---|
| Date | 7/1/2025 |
| Scale | N/A |
| Project | 2023.47 |


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Figure
5b

Once operational, the Proposed Project would serve approximately 967 total connections. The Proposed Project would accommodate existing connections within the area by transferring water service to the consolidated water system. The Proposed Project includes approximately 46,000 LF of potable watermains between both phases, and a total of 235,000 LF of total pipeline when including service laterals and appurtenances. Pipelines infrastructure would include pipelines of six (6), eight (8), and 10-inch diameters. The Proposed Project would primarily be supplied with water from three (3) sources, comprised of Pajaro Wells No. 1 and No. 2 and Springfield Well No. 2. Pajaro Wells No. 1 and No. 2 would operate on alternating days for approximately 7.5 hours and 3.7 hours, respectively, to meet the average daily demand for the consolidated water system. Additionally, SMWS Wells No. 1 and No. 2 would be retained as standby sources of water for the Proposed Project, for an overall total of five (5) water sources. The District has designed and sized the Proposed Project to accommodate existing potable water connections only; the Proposed Project would not facilitate future residential or commercial development. The Proposed Project includes additional infrastructure improvements at the existing PWS Water Storage Tank and Sunny Mesa Tank Site to facilitate O&M of the new water system. These components are explained in more detail below.

**Project Phases**

The Proposed Project requires a CEQA Plus review as discussed above in **Section 1.1**. The District would pursue State-level funding through the SWRCB Expedited Drinking Water Grant. The District designed Phase 1 of the Proposed Project to function as a standalone water system project in the event that funding for Phase 2 is not available.

Phase 1 of the Proposed Project consists of the consolidation of the existing water systems and related improvements to existing District infrastructure. Specifically, Phase 1 of the Proposed Project would consist of the following components:

- Parcel Annexation
- Land Acquisition and Easements
- Iron and Manganese Treatment System
- Transmission Booster Pump Station
- Transmission Main Pipeline
- PWS to SMWS Transmission Main
- Springfield Transmission Main
- PWS Water Storage Tank Rehabilitation
- Conversion of the SMWS wells No.1 and No.2 to standby use only
- Radio Read Water Meter Installation and Replacement
- Five (5) service laterals (existing system tie overs)
- System Controls and Supervisory Control and Data Acquisition ("SCADA") [2]

Phase 2 consists of the extension of District water service into the Project areas. Specifically, Phase 2 would consist of the following components:

[2] Anticipated to take place during both Phases of the Proposed Project.

- SMWS to NOML Transmission Main
- Bluff/Jensen Split Distribution Piping
- SWS Distribution System Expansion Piping
- Bluff/Jensen Tank and Pump Station site
- Abandonment of Existing NOML Infrastructure
- Well Destruction
- Service Connections (Laterals)

Additional description of the Proposed Project components is provided below.

**Project Components**

***Pipelines***

The Proposed Project includes approximately 46,000 LF of pipelines. The Proposed Project also includes various other appurtenances, including, but not limited to, valves, fire hydrants, air release valves, blow-offs, and sampling stations, to consolidate the existing water systems. Distribution pipes would be a minimum of six (6)-inches and a maximum of 10-inches in diameter, where service to fire hydrants is provided. Pipeline installation would primarily utilize open trench construction methods with an anticipated trench width of 24 to 30 inches and a minimum depth of cover of 36-inches within the public ROWs and private roadways, with greater depths potentially required within easements located on and adjacent to agricultural areas. Horizontal Directional Drilling ("HDD") would be utilized within the Transmission Main easement near the SWS connection to avoid impacts to sensitive riparian habitat. The Proposed Project would separate main lines from existing sewage and storm drain lines pursuant to CCR Title 22, §64554. Within the County ROW, surfaces will be repaired in accordance with the County's requirement; depending on location, County requirements may include full road width resurfacing, resurfacing of one traveled lane, or only a trench width repair. Within Caltrans ROW (approximately 1,030 LF), pavement repair will include the trench and an additional 12 inches on either side. A total of approximately 12.5 acres of pavement will be replaced. Further details on pipeline improvements included are provided below. **Figure 5c** depicts the southern-alignments of Project pipeline alignments, and **Figure 5d** depicts the northern-alignments of Project pipeline alignments.

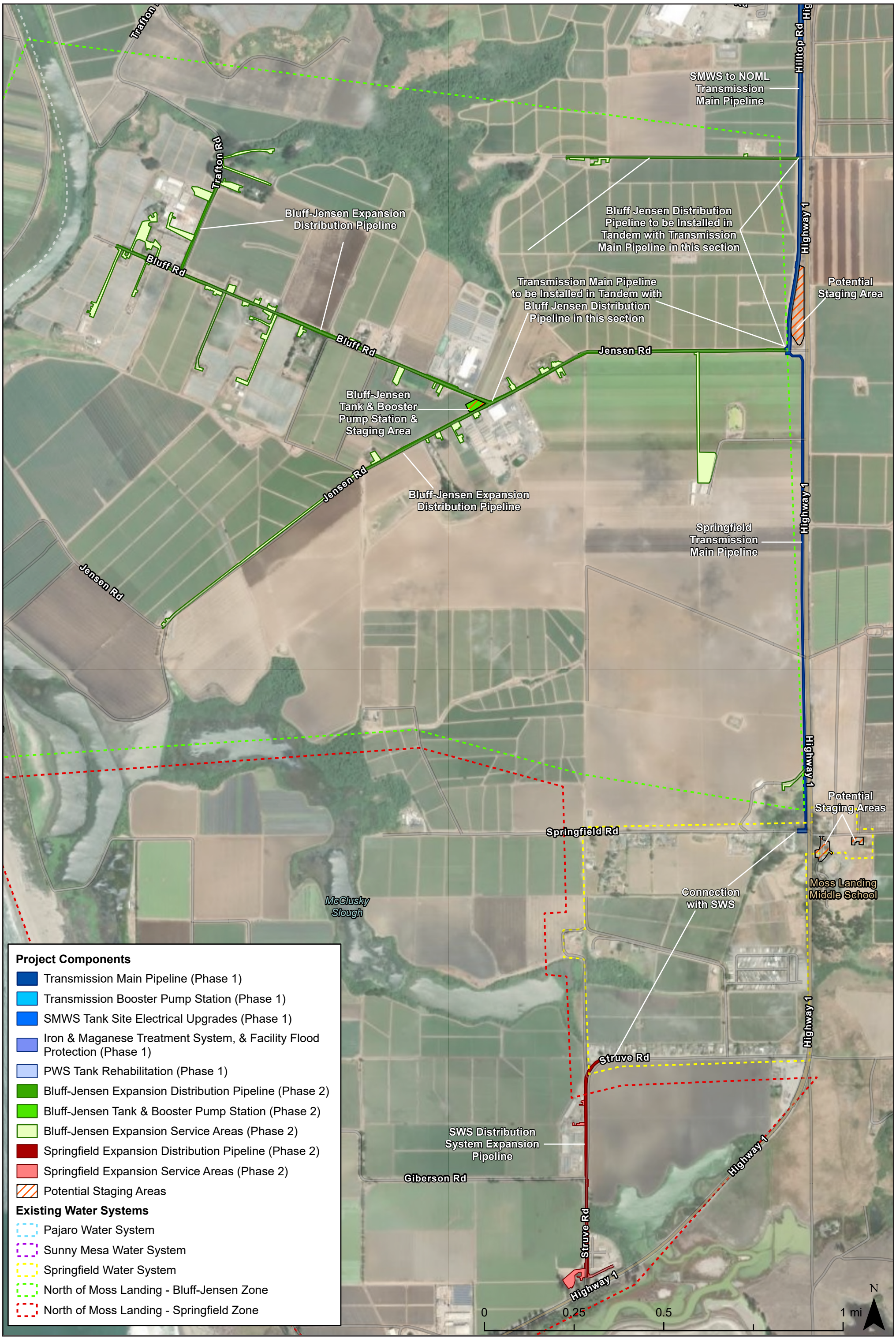
*Transmission Booster Pump Station Supply Pipeline*

An approximately 5,300 LF pipeline will connect the existing termination of the PWS distribution system (located at 560 Salinas Road) to the Transmission Booster Pump Station. The new transmission pipeline will run south within the paved ROW in Salinas Road before reaching the intersection of Salinas Road and Elkhorn Road and continuing south along Elkhorn Road and connecting to the new Transmission Booster Pump Station located at the existing SMWS well site (APN 117-121-003-000).

*PWS to SMWS Transmission Main*

An approximately 2,780 LF pipeline will convey water south from the Transmission Booster Pump Station to the existing termination of the SMWS service pipeline in Fruitland Avenue. The new transmission pipeline would travel from the Transmission Booster Pump Station back north along Elkhorn Road, then turn west along Werner Road and Salinas Road, before turning south along Fruitland Avenue and reconnecting with the existing SMWS system.

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Title:
# Project Components - South

Date 8/29/2025
Scale N/A
Project 2023.47

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Figure
5c

**Project Components**

- Transmission Main Pipeline (Phase 1)
- Transmission Booster Pump Station (Phase 1)
- SMWS Tank Site Electrical Upgrades (Phase 1)
- Iron & Maganese Treatment System, & Facility Flood Protection (Phase 1)
- PWS Tank Rehabilitation (Phase 1)
- Bluff-Jensen Expansion Distribution Pipeline (Phase 2)
- Bluff-Jensen Tank & Booster Pump Station (Phase 2)
- Bluff-Jensen Expansion Service Areas (Phase 2)
- Springfield Expansion Distribution Pipeline (Phase 2)
- Springfield Expansion Service Areas (Phase 2)
- Potential Staging Areas

**Existing Water Systems**

- Pajaro Water System
- Sunny Mesa Water System
- Springfield Water System
- North of Moss Landing - Bluff-Jensen Zone
- North of Moss Landing - Springfield Zone

0 0.25 0.5 1 mi

N

Connection with Existing PWS

Transmission Booster Pump Station Supply Pipeline

Trafton Rd

Salinas Rd

PWS to SMWS Transmission Main

SMWS Tank Site Upgrades

Warner Lake

Tri-County Landscaping Water Meter Relocation

Garin Rd

Sunny Mesa Wells, Transmission Booster Pump Station, & Staging Area

Fruitland Ave

Connection with Existing SMWS

Elkhorn Rd

Cabrillo Hwy N

Pajaro Valley Golf Club

Hillcrest Rd

Bay Farms Rd

Spring Rd

Hudson Landing Rd

Hall Rd

Wells Rd

Highway 1

Hilltop Rd

Bluff-Jensen Distribution Pipeline

SMWS to NOML Transmission Main Pipeline

Hwy 1

Bluff Jensen Distribution Pipeline to be Installed in Tandem with Transmission Main Pipeline in this section

Potential Staging Area

Springfield Transmission Main Pipeline

0 0.1 0.2 0.4 mi

Elsa St

Susan St

San Juan Rd

PWS Well #1 Site, Iron & Manganese Treatment System, Facility Flood Protection, & Staging Area

Matiasevich Ln

Waters Ln

Marinovich Ave

PWS Tank Rehabilitation & Staging Area

Railroad Ave

Southern Pacific Railroad

Lewis

| | | | |
|---|---|---|---|
| Title: Project Components - North | Date 8/29/2025<br>Scale N/A<br>Project 2023.47 | Monterey \| San Jose<br>**Denise Duffy and Associates, Inc.**<br>Environmental Consultants Resource Planners<br>947 Cass Street, Suite 5<br>Monterey, CA 93940<br>(831) 373-4341 | Figure 5d |

*SMWS to NOML/Transmission Main and Bluff-Jensen Distribution*

The Proposed Project would install an approximately 14,700 foot transmission main to convey water from the SMWS to the intersection of Hilltop Road and Jensen Road. The new transmission pipeline would tie into the existing SMWS distribution system at the intersection of Salinas Road and Bay Farms Road, then continue west to the intersection of Salinas Road and Hilltop Road. The pipeline would be located within the ROW of Salinas Road as well as the California Department of Transportation ("Caltrans") ROW within SR 1, including the on- and off-ramps to Salinas Road. The Proposed Project would install an approximately 212 LF segment within an existing unused utility conduit in the bridge crossing SR 1. Vaults with expansion joints will be provided on either side of the bridge crossing. From the intersection of Salinas Road and Hilltop Road, the pipeline would proceed south in the paved ROW and/or unpaved shoulder of Hilltop Road to the intersection with Jensen Road, where it would split into two (2) segments, one (1) travelling west along Jensen road to connect to the Bluff-Jensen Tank and Booster Pump Station (see NOML Transmission and Bluff-Jensen Distribution Piping below), and the other continuing south to the SWS (see Springfield Transmission Main below).[3] Additionally, the Proposed Project includes the installation of approximately 2,300 LF of the Bluff-Jensen Distribution Piping in tandem with the Transmission Main Pipeline in Hilltop Road and Jensen Road as part of Phase 1 of the Proposed Project.

*Springfield Transmission Main*

The Springfield Transmission Main will serve as a back-up water supply to the SWS. An approximately 5,140 LF pipeline will be located within an easement that runs parallel to SR 1 along an unnamed farm road and through a residential property at the northwestern corner of the intersection of Springfield Road and SR 1, before turning west along Springfield Road to connect with the SWS. Within this extent, approximately 400 LF of the transmission pipeline would be installed using HDD to avoid impacts to sensitive riparian habitat. The Proposed Project includes installation of a manual flushing point at the connection to the SWS distribution system to purge aged water prior to discharge into the SWS.

*NOML Transmission Main and Bluff-Jensen Distribution Piping*

The Proposed Project will provide water to the Bluff-Jensen area by installing approximately 14,175 LF of distribution pipeline within the Bluff-Jensen Expansion Area as part of Phase 2. Approximately 5,225 LF of the new distribution pipeline will extend southwest and northeast along Jensen Road from the Bluff-Jensen Tank and Booster Pump Station. Approximately 3,820 LF of transmission pipeline would be installed in tandem within the distribution piping in the northeast extent, between the Bluff-Jensen Tank and Booster Pump Station and the intersection of Jensen Road and Hilltop Road, as part of Phase 2 of the Proposed Project. The distribution piping would also branch off to the northwest for 4,800 LF along Bluff Road, with an additional 1,400 LF segment branching off and travelling to the north along Trafton Road and an approximately 2,750 LF segment extending west from Hilltop Road along an unnamed dirt road. The pipelines installed within Jensen Road, Bluff Road, and Trafton Road would all have a dead-ends at the terminus of the pipeline that will require regular flushing to maintain water quality.

*SWS Distribution System Expansion Piping*

The Proposed Project will expand the SWS by installing approximately 2,650 feet of pipelines to tie into the west end of the SWS at Struve Road (see **Figure 5c**). The District would install the new pipeline

[3] The SWS was considered as part of a separate project (SCH# 2020080200) and is not included as part of this environmental analysis.

within Struve Road, which would dead-end at the southern terminus of the pipeline. This pipeline segment would require regular flushing to maintain water quality.

***Site Improvements and New Facilities***

*PWS Tank Rehabilitation*

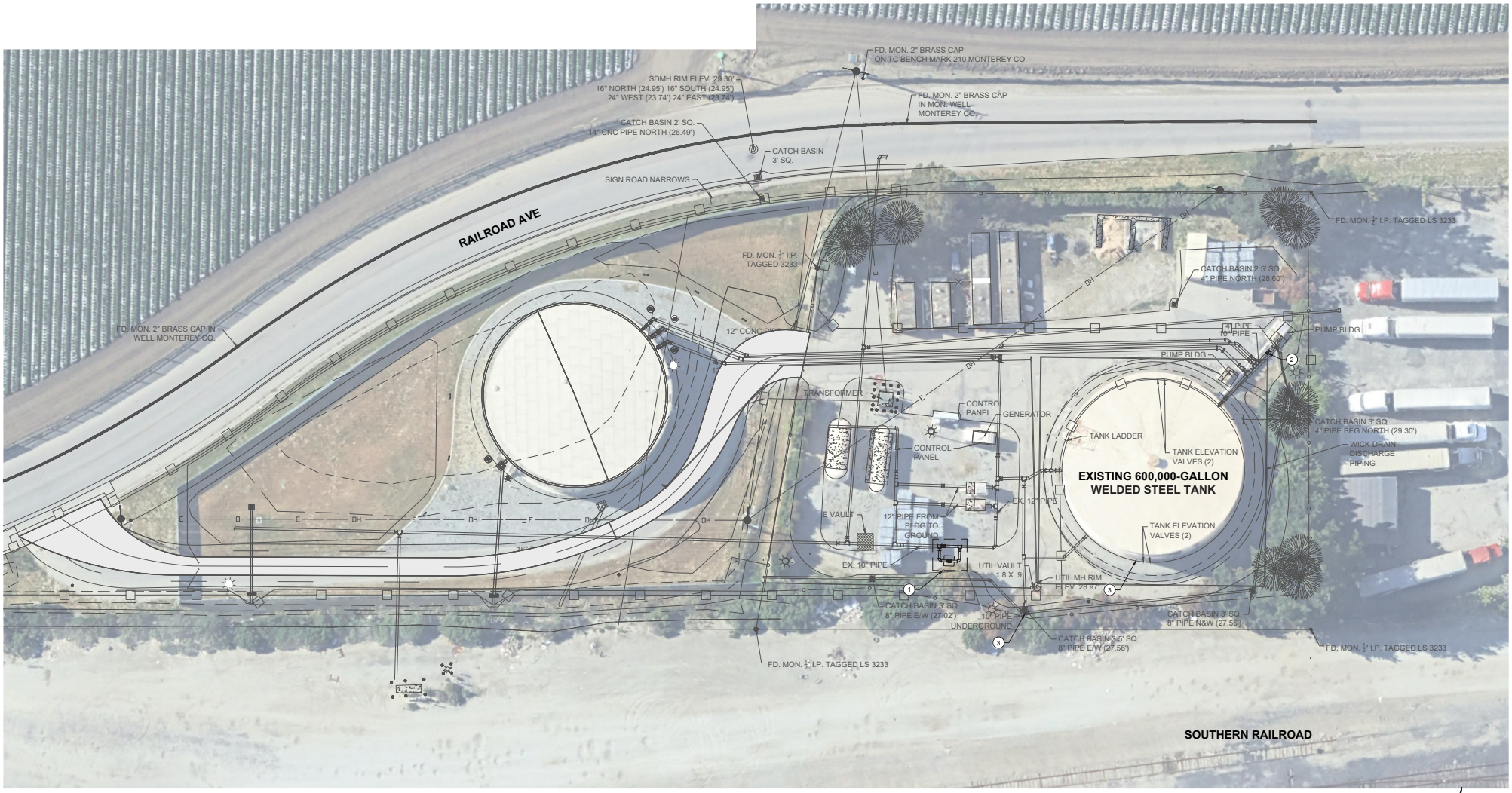
The Proposed Project includes electrical and piping modifications at the District's existing Pajaro tank and booster pump station site located at Railroad Avenue. These modifications include the installation of a bypass valve vault, the replacement of the existing 10-inch electromagnetic flow meter, and the rehabilitation of the existing 600,000 gallon welded steel water tank by recoating interior and exterior surfaces, structural repairs, repairing the structure and pitted areas on the tank floor, replacing tank appurtenances, and various other improvements. These improvements would occur entirely within a developed site and are depicted in **Figure 6a**.

*Sunny Mesa Tank Site Upgrades*

The Proposed Project includes improvements to the District's existing SMWS Tank site located off of Stone Ridge Drive. These improvements include instrumentation, controls, and communication system improvements to integrate site operation into the proposed SCADA system. These improvements would occur entirely within a developed site.

*Iron and Manganese Treatment System & Facility Flood Protection*

The Proposed Project would install an Iron and Manganese Treatment System at the existing Pajaro Well No. 1 site, located at the District's office at 136 San Juan Road. This treatment system would address water quality issues related to elevated iron and manganese concentrations and provide the consolidated water system with an additional source of supply. The Proposed Project would remove some existing vegetation, well piping, and other site equipment to make way for the site improvements, while other equipment, including the existing hydropneumatic tank, would be protected in place. An existing storage shed would be relocated to make room for the site improvements, and the existing pump and motor would be tested to confirm operation and potentially replaced to meet revised hydraulic conditions. This component includes approximately 2,000 sf of new impervious surfaces at the southeastern corner of the site. In addition, the Proposed Project would remove some existing piping and infrastructure, a fence segment, and a light pole from the site. The treatment system consists of a pressure filter containing a combination of anthracite and greensand filtration media, as well as 15-foot diameter 10,000 gallon backwash tank. New eight (8) inch diameter pipelines would be installed within the adjacent parking lot to convey water from the existing Pajaro Well No. 1 to the treatment system and from the treatment system to the District's distribution system located within San Juan Road. Sludge generated by the proposed Iron and Manganese Treatment System would be discharged to the existing sewer located within San Juan Road. The Iron and Manganese System also includes the construction of a concrete masonry unit block new building with two (2) separate rooms to house chemical equipment and electrical equipment. The chemical room would include a five (5) gallon storage drum for sodium hypochlorite mounted on a containment pad, a floor mounted sodium hypochlorite dosing skid and dosing pump, a chlorine analyzer, a turbidimeter, and an eye washing station. The Proposed Project would elevate the new facilities at this site above the flood level and new drainage management features would be installed to manage on-site flood flows.




**CONSTRUCTION NOTES**

1. INSTALL 4'-5" X 4'-5" BYPASS VALVE VAULT PER DRAWING C-104
2. REMOVE AND REPLACE 10" ELECTROMAGNETIC FLOW METER (FLG)
3. SEE DRAWING M-301 FOR TANK REHABILIATION

20' 10' 0' 10' 20'
SCALE: 1" = 20'

Source: MNS, June 2025

Title:

# Site Plan - PWS Water Storage Tank

| | |
|---|---|
| Date | 6/27/2025 |
| Scale | N/A |
| Project | 2023.47 |


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Figure
6a

Other improvements on the site include replacement of an existing insect screen, installation of retaining walls, and an access ramp. **Figure 6b** shows the proposed improvements. Operation of the Iron and Manganese Treatment System would require issuance of an Industrial Wastewater Discharge Permit from the City of Watsonville due to discharges from the system to wastewater infrastructure operated by the City of Watsonville.

The District would also harden the existing PWS Well No. 1 site facilities to protect against flooding, including installation of flood barriers at critical facilities.

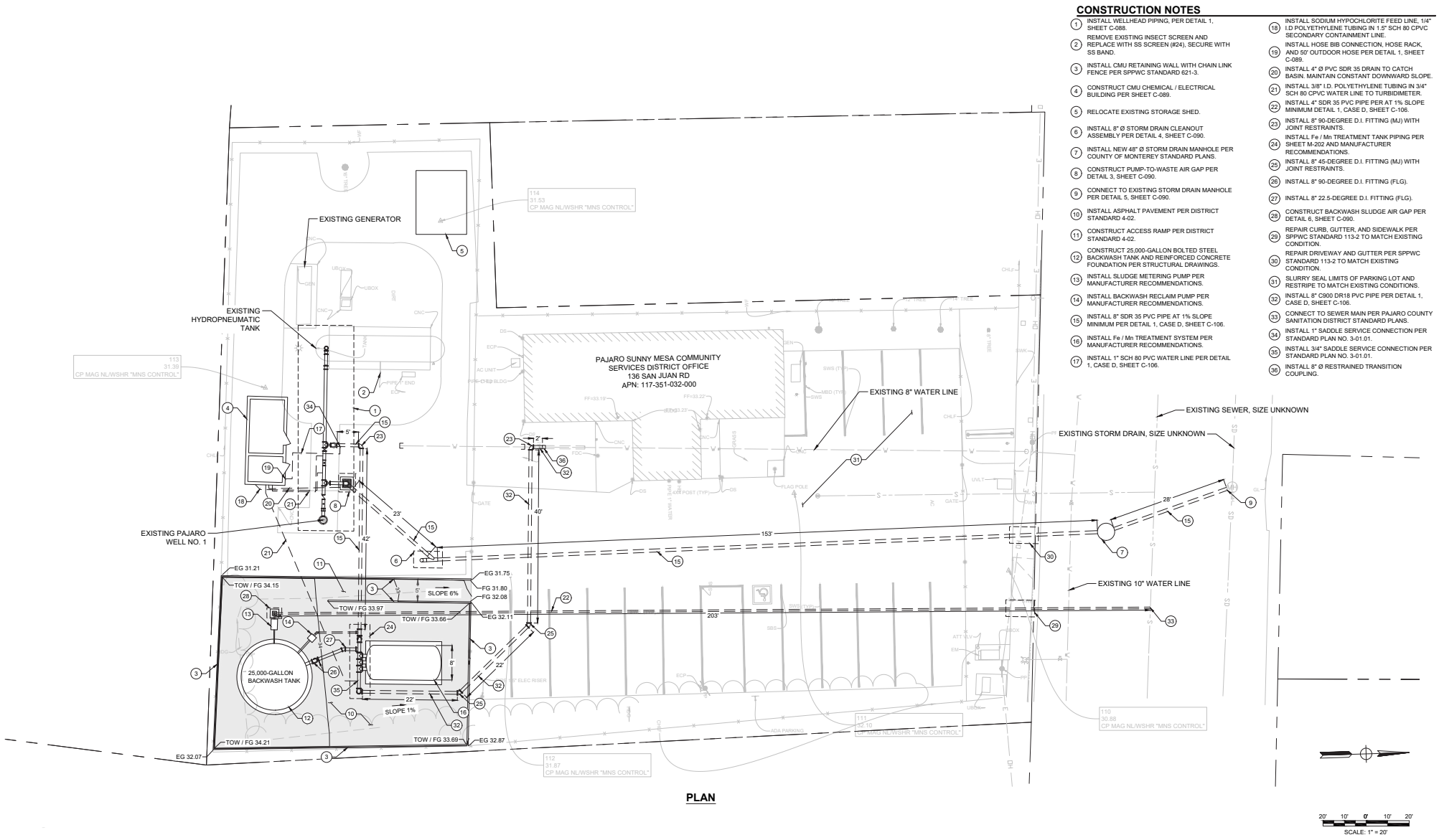
*Transmission Booster Pump Station*

The Proposed Project includes the construction of a new Transmission Booster Pump Station located off of Elkhorn Road at the existing SMWS well site (APN 117-121-003-000). The Transmission Booster Pump Station would convey water from the PWS (Zone I) to SMWS (Zone II) and then to the Bluff/Jensen area (Zone III) and SWS (Zone IV). The Transmission Booster Pump Station would have a total pumping capacity of 700 gpm and motors of 40 horsepower ("hp") each. The Transmission Booster Pump Station would also include a bypass vault and security improvements (fencing, etc.). The Proposed Project would relocate the existing back-up generator to a new concrete pad and the existing concrete mounting pad would be demolished. In addition, the Proposed Project would relocate the existing water meter and lateral for the adjacent property to the north (Tri-County Landscaping). The existing access driveway would be replaced, with elevations to match existing conditions. The Proposed Project includes installation of approximately 150 sf of new impervious surfaces and 2,350 sf of replacement impervious surfaces at the Transmission Booster Pump Station site. Construction of this project component would last approximately six (6) months. Two (2) coast live oak trees would require removal as a result of construction of this project component; all other trees on the site would be protected in place. **Figure 6c** depicts the proposed improvements to the Transmission Booster Pump Station.

The Proposed Project would retain the existing SMWS Wells No. 1 and No. 2 located at the Transmission Booster Pump Station site to serve as standby water sources. The Proposed Project would also demolish and remove or relocate some above-grade infrastructure at the SMWS well site and remove or abandon in place underground pipe components.

*Bluff/Jensen Tank and Pump Station Site*

The Proposed Project includes construction of a new booster pump station and water storage tank on a 10,000 sf portion of an approximately 17,536 sf site at the Bluff/Jensen Tank and Pump Station site located west of where Jensen Road and Bluff Road intersect (APN 117-033-005-000), to convey water from the transmission main into the Bluff/Jensen area (Zone III) and provide water flow for fire prevention. The pumping facility would consist of a 34-foot diameter 125,000 gallon bolted-steel potable water storage tank, a 14-foot by 17-foot pump station consisting of four (4) vertical turbine can pumps, a 30 foot by nine (9) foot hydropneumatic pressure tank, a back-up generator, and a 24.5 foot by 9.33 foot chemical and electrical building housing a tank mixing and chlorine residual control system. Site access would be provided via a new 20-foot wide driveway and rolling gate accessed via Jensen Road. Other site improvements include eight (8) foot high security chain link fencing (with three (3) strand barb wire) and a six (6) foot by six (6) foot transformer. The Bluff/Jensen Tank and Pump Station would result in the permanent conversion of approximately 0.4 acres of farmland to non-agricultural use. The Proposed Project would install approximately 10,000 sf of impervious surfaces at the Bluff/Jensen Tank and Pump Station site. Unimproved areas of the site will be hydroseeded or landscaped. **Figure 6d** depicts the proposed improvements for the Bluff/Jensen Tank and Booster Pump Facility site.




**PLAN**

## CONSTRUCTION NOTES

1. INSTALL WELLHEAD PIPING, PER DETAIL 1, SHEET C-088.
2. REMOVE EXISTING INSECT SCREEN AND REPLACE WITH SS SCREEN (#24), SECURE WITH SS BAND.
3. INSTALL CMU RETAINING WALL WITH CHAIN LINK FENCE PER SPPWC STANDARD 621-3.
4. CONSTRUCT CMU CHEMICAL / ELECTRICAL BUILDING PER SHEET C-089.
5. RELOCATE EXISTING STORAGE SHED.
6. INSTALL 8" Ø STORM DRAIN CLEANOUT ASSEMBLY PER DETAIL 4, SHEET C-090.
7. INSTALL NEW 48" Ø STORM DRAIN MANHOLE PER COUNTY OF MONTEREY STANDARD PLANS.
8. CONSTRUCT PUMP-TO-WASTE AIR GAP PER DETAIL 3, SHEET C-090.
9. CONNECT TO EXISTING STORM DRAIN MANHOLE PER DETAIL 5, SHEET C-090.
10. INSTALL ASPHALT PAVEMENT PER DISTRICT STANDARD 4-02.
11. CONSTRUCT ACCESS RAMP PER DISTRICT STANDARD 4-02.
12. CONSTRUCT 25,000-GALLON BOLTED STEEL BACKWASH TANK AND REINFORCED CONCRETE FOUNDATION PER STRUCTURAL DRAWINGS.
13. INSTALL SLUDGE METERING PUMP PER MANUFACTURER RECOMMENDATIONS.
14. INSTALL BACKWASH RECLAIM PUMP PER MANUFACTURER RECOMMENDATIONS.
15. INSTALL 8" SDR 35 PVC PIPE AT 1% SLOPE MINIMUM PER DETAIL 1, CASE D, SHEET C-106.
16. INSTALL Fe / Mn TREATMENT SYSTEM PER MANUFACTURER RECOMMENDATIONS.
17. INSTALL 1" SCH 80 PVC WATER LINE PER DETAIL 1, CASE D, SHEET C-106.
18. INSTALL SODIUM HYPOCHLORITE FEED LINE, 1/4" I.D POLYETHYLENE TUBING IN 1.5" SCH 80 CPVC SECONDARY CONTAINMENT LINE.
19. INSTALL HOSE BIB CONNECTION, HOSE RACK, AND 50' OUTDOOR HOSE PER DETAIL 1, SHEET C-089.
20. INSTALL 4" Ø PVC SDR 35 DRAIN TO CATCH BASIN. MAINTAIN CONSTANT DOWNWARD SLOPE.
21. INSTALL 3/8" I.D. POLYETHYLENE TUBING IN 3/4" SCH 80 CPVC WATER LINE TO TURBIDIMETER.
22. INSTALL 4" SDR 35 PVC PIPE PER AT 1% SLOPE MINIMUM DETAIL 1, CASE D, SHEET C-106.
23. INSTALL 8" 90-DEGREE D.I. FITTING (MJ) WITH JOINT RESTRAINTS.
24. INSTALL Fe / Mn TREATMENT TANK PIPING PER SHEET M-202 AND MANUFACTURER RECOMMENDATIONS.
25. INSTALL 8" 45-DEGREE D.I. FITTING (MJ) WITH JOINT RESTRAINTS.
26. INSTALL 8" 90-DEGREE D.I. FITTING (FLG).
27. INSTALL 8" 22.5-DEGREE D.I. FITTING (FLG).
28. CONSTRUCT BACKWASH SLUDGE AIR GAP PER DETAIL 6, SHEET C-090.
29. REPAIR CURB, GUTTER, AND SIDEWALK PER SPPWC STANDARD 113-2 TO MATCH EXISTING CONDITION.
30. REPAIR DRIVEWAY AND GUTTER PER SPPWC STANDARD 113-2 TO MATCH EXISTING CONDITION.
31. SLURRY SEAL LIMITS OF PARKING LOT AND RESTRIPE TO MATCH EXISTING CONDITIONS.
32. INSTALL 8" C900 DR18 PVC PIPE PER DETAIL 1, CASE D, SHEET C-106.
33. CONNECT TO SEWER MAIN PER PAJARO COUNTY SANITATION DISTRICT STANDARD PLANS.
34. INSTALL 1" SADDLE SERVICE CONNECTION PER STANDARD PLAN NO. 3-01.01.
35. INSTALL 3/4" SADDLE SERVICE CONNECTION PER STANDARD PLAN NO. 3-01.01.
36. INSTALL 8" Ø RESTRAINED TRANSITION COUPLING.

Source: MNS, June 2025

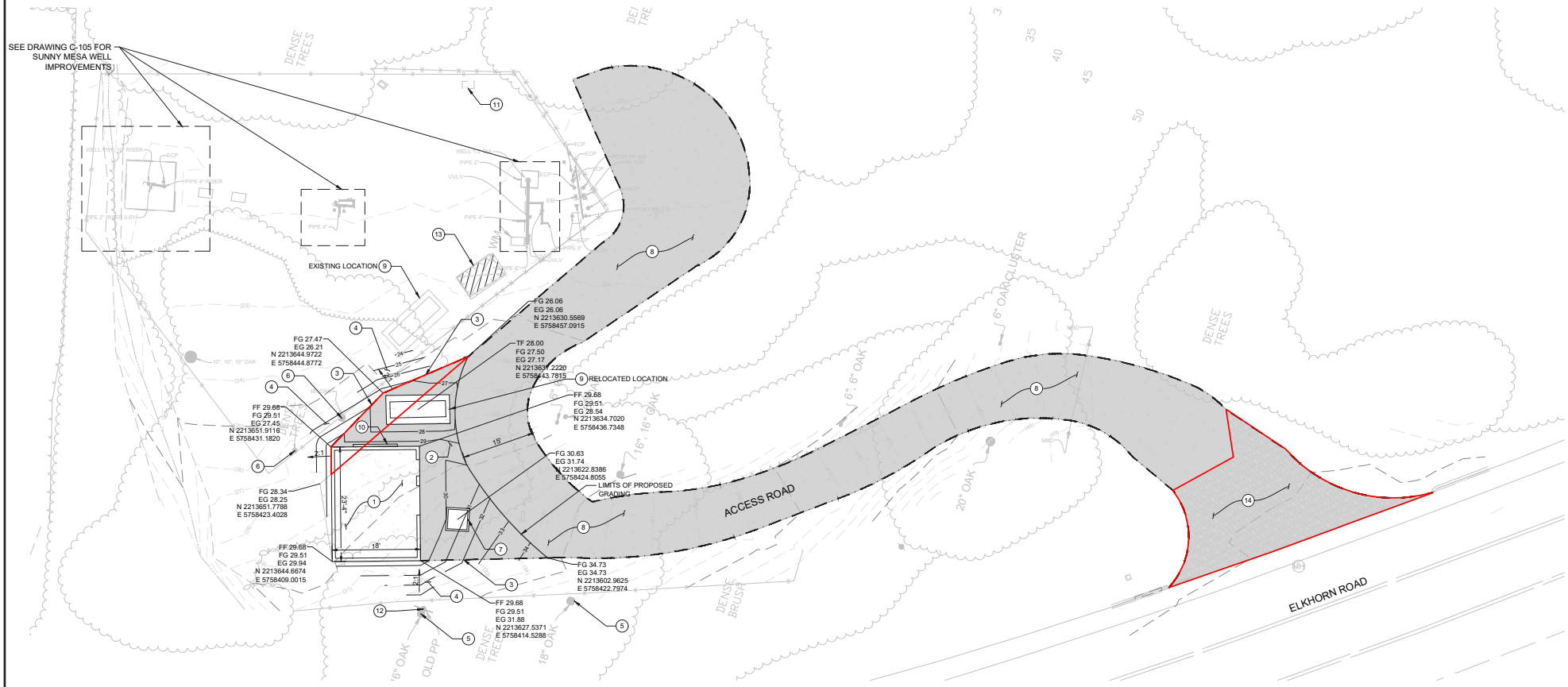
Title:

# Site Plan - Iron and Managanese

Date 6/27/2025
Scale N/A
Project 2023.47


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Figure
6b




SITE PLAN

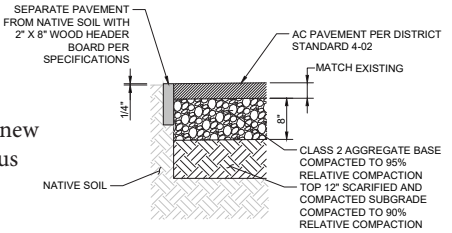
10' 5' 0' 5' 10'

SCALE: 1" = 10'

## CONSTRUCTION NOTES

1. INSTALL ENCLOSED, PACKAGED DUPLEX BOOSTER PUMP STATION AND BUILDING PER DRAWING C-095.
2. GRADE FINISH SURFACE PER ELEVATIONS SHOWN AND DISTRICT STANDARD 4-02.
3. INSTALL WOOD HEADER PER DETAIL 1, THIS DRAWING.
4. DAYLIGHT NEW SURFACE AT 2:1 SLOPE TO MEET EXISTING GRADE.
5. PROTECT TREES IN PLACE.
6. REMOVE TREES.
7. INSTALL BYPASS VAULT PER DETAIL 3, DRAWING C-107.
8. REPLACE AC PAVEMENT ON ACCESS ROAD PER DISTRICT STANDARD 4-02. ELEVATIONS TO MATCH EXISTING CONDITIONS.
9. RELOCATE EXISTING GENERATOR. DEMOLISH AND REMOVE EXISTING CONCRETE PAD. CONSTRUCT NEW CONCRETE PAD PER STRUCTURAL DRAWINGS.
10. INSTALL ELECTRICAL PANEL MOUNTED ON BUILDING WALL PER ELECTRICAL DRAWINGS.
11. WATER METER AND LATERAL FOR TRI-COUNTY LANDSCAPE. LATERAL TO BE REROUTED AND METER RELOCATED.
12. PROTECT POWER POLE IN PLACE.
13. DEMOLISH AND REMOVE EXISTING STRUCTURE.
14. REPLACE GRAVEL WITH AC PAVEMENT ON ACCESS ROAD PER DISTRICT 4-02. ELEVATIONS TO MATCH EXISTING CONDITIONS.

Limits of new Impervious Surface




1 WOOD HEADER DETAIL

NTS

Source: MNS, August 2025

Title:

# Site Plan - Transmission Booster Pump

Date 8/12/2025

Scale N/A

Project 2023.47

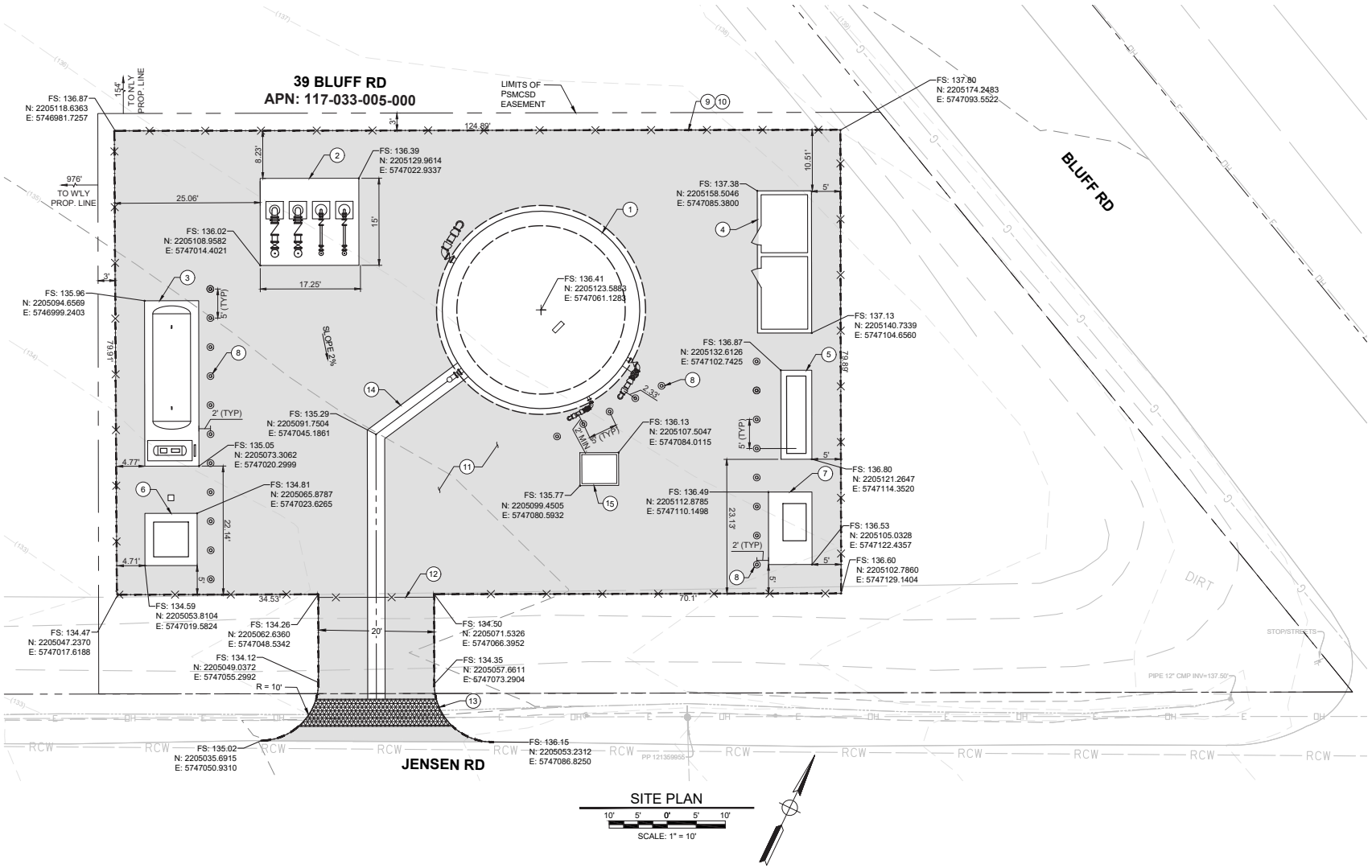

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Environmental Consultants Resource Planners

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(831) 373-4341


Figure 6c




## CONSTRUCTION NOTES

1. CONSTRUCT 125,000-GALLON STEEL TANK AND REINFORCED CONCRETE RINGWALL FOUNDATION PER STRUCTURAL DRAWINGS AND C-098.
2. CONSTRUCT 17.25' X 15' BOOSTER PUMP STATION CONCRETE SLAB PER STRUCTURAL DRAWINGS.
3. CONSTRUCT 28'-6" X 9'-4" HYDROPNEUMATIC TANK CONCRETE SLAB PER STRUCTURAL DRAWINGS.
4. CONSTRUCT CMU CHEMICAL / ELECTRICAL BUILDING PER DRAWING C-102.
5. CONSTRUCT 15'-4" X 5'-4" GENERATOR CONCRETE SLAB PER STRUCTURAL DRAWINGS.
6. CONSTRUCT 9' X 9' TRANSFORMER CONCRETE SLAB PER STRUCTURAL DRAWINGS.
7. CONSTRUCT 12'-6" X 7'-6" FUEL TANK CONCRETE SLAB PER STRUCTURAL DRAWINGS.
8. INSTALL REMOVABLE BOLLARD PER STANDARD PLAN NO. 4-03 (TOTAL 24).
9. INSTALL 8' CHAIN LINK FENCE PER DETAIL 5, DRAWING C-099.
10. INSTALL WOOD HEADER PER DETAIL 1, DRAWING C-093.
11. GRADE FINISHED SURFACE PER ELEVATIONS SHOWN AND DISTRICT STANDARD 4-02.
12. INSTALL 20' ROLLING GATE PER DETAIL 6, DRAWING C-099.
13. INSTALL DRAINAGE GRATE PER DETAIL X, SHEET X-XX
14. CONSTRUCT CONCRETE DRAINAGE SWALE PER DETAIL X, DRAWING C-XX
15. INSTALL 6' X 5' X 4'-8" BYPASS VALVE VAULT PER DRAWING C-104

Source: MNS, August 2025

Title:

# Site Plan - Bluff/Jensen Site

| | |
|---|---|
| Date | 8/12/2025 |
| Scale | N/A |
| Project | 2023.47 |


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Figure
6d

***Additional Infrastructure Improvements***

In addition to the pipeline and site improvements described above, the Proposed Project also includes various miscellaneous infrastructure improvements as described below.

*Existing NOML Infrastructure*

The existing private and state small water systems in the NOML area are considered unsuitable for consolidation into the Proposed Project. Existing water distribution infrastructure within the NOML area will either be abandoned or continue operation exclusively as non-potable water sources. In addition, the Proposed Project would destroy existing individual wells serving properties in the NOML area once these areas have been connected to the operational water distribution system component of the Proposed Project, unless wells are requested to be retained for irrigation. Well destruction would be conducted in accordance with the California Department of Water Resources ("DWR") Bulletin Nos. 74-81 and 74-90 and County Public Health Department requirements by a California State C-57 licensed contractor. Well destruction is assumed to occur entirely within developed and disturbed areas. Well destruction typically includes removal of the top five (5) feet of well casing, requiring excavation. However, individual well destruction would be subject to the conditions of well destruction permits issued by the County Environmental Health Bureau, including verification that no sensitive resources would impacted during well destruction. Continued use of private wells for non-potable water would be at the discretion of the individual owners and may require County permitting and/or approvals that are not included under the Proposed Project. All well owners who opt to retain their wells for irrigation would be required to install a backflow prevention assembly and/or airgap and ensure that all water using equipment is installed in accordance with plumbing code requirements pursuant to Section 7584 of Title 17 of the California Code of Regulations. In addition, well owners would be responsible for paying for an annual cross connection certification to demonstrate no connections exist between the potable and non-potable systems. The Proposed Project would dispose of all demolition waste from existing infrastructure in accordance with all applicable regulations at the Monterey Peninsula Landfill.

*Radio Read Water Meter Installation and Replacement*

The Proposed Project would install individual radio read water meters throughout the NOML area, and replace all existing water meters for the PWS (463 meters) and SMWS (268 meters) with new radio read meters. Use of these meters would reduce the District's operational workload by allowing remote access to meter data and eliminating the need to manually check meters and offsetting the need for additional or longer maintenance trips to serve the Proposed Project. Use of these meters would also allow for easier identification of leaks and maintenance needs, reducing water waste and streamlining maintenance operations.

*System Controls and Supervisory Control and Data Acquisition System*

The Proposed Project includes installation of a consolidated system-wide SCADA system, which would consist of a centralized base station computer, communication equipment, alarms, and other provisions. The SCADA system would allow the District to control the components of the Proposed Project via cloud-based remote access. These proposed improvements would require retrofitting at existing sites and the installation of new infrastructure at new sites. No ground disturbing activities would be necessary for retrofits at existing District facilities. SCADA installation would begin in Phase 1 of the Proposed Project and would continue for applicable facilities under Phase 2 of the Proposed Project.

Local Programmable Logic Controllers ("PLCs") would control both the Transmission Booster Pump Station and the Bluff/Jensen Tank and Pump Station site. The improvements to the other facilities will rely on existing controls.

*Service Connections*

The Proposed Project includes the installation of private water service laterals for the individual residential connections in the Bluff/Jensen area and the SWS expansion area. Laterals would connect the new distribution mains to individual residences to provide water service. In addition, the Proposed Project would install connection points to provide future connections to existing commercial properties. Trenchless installation of service laterals would be used where feasible and convenient using a small diameter boring machine; where trenching is necessary, all surfaces would be restored to match existing conditions following completion of installation. Project personnel would coordinate with individual properties prior to installation of service laterals on private property.

***Service Area Expansion***

The Proposed Project would serve several parcels that are not currently within the District's service area. Parcel annexation would approval of a Sphere of Influence Amendment and Service Area Annexation from the Monterey County Local Agency Formation Commission ("LAFCO"). The Proposed Project would add the following eight (8) parcels into the District's service area.

- 413-012-014-000 (about 20 percent of this parcel is included in existing LAFCO boundary)
- 412-032-011-000
- 412-032-009-000
- 412-032-013-000
- 117-042-009-000
- 117-022-002-000
- 117-052-023-000
- 117-021-008-000

***Land Acquisition***

The Proposed Project would require permanent easements, temporary easements, and/or real property acquisitions in several areas for the Bluff/Jensen Tank and Pump Station site, construction staging areas, and various transmission and distribution pipelines. In addition, temporary staging areas would be necessary for construction staging and equipment storage. The land acquisition requirements for the Proposed Project are described in further detail below for each Project component.

*Bluff/Jensen Tank and Pump Station Site*

The Bluff/Jensen Tank and Pump Station would be constructed on an approximately 17,300 sf portion of APN 117-033-005-000, west of where Jensen Road and Bluff Road diverge, pending final design and approval of the property owner. The District is seeking an easement to secure this site for the Bluff/Jensen Tank and Pump Station.

*Pipeline Easements*

Several pipeline easements would be necessary for the proposed transmission and distribution pipelines. The District would require easements for pipeline alignments within the Bluff/Jensen Zone on APNs 117-021-008-000 and 117-021-013-000. Easements for the transmission main between the Bluff/Jensen Zone and the SWS would be necessary on APNs 117-022-002-000 and 412-032-011-000.

## 1.7 PROJECT CONSTRUCTION

Construction of the Proposed Project will occur over two (2) major phases lasting 24-30 months. Construction activities associated with Phase 1 would last approximately 24 months. Construction activities associated with Phase 2 would last approximately 18 months. Project Phases are delineated based on availability of funding sources and construction of Project components may occur simultaneously between Phases. Further details on construction activities for the Proposed Project are provided below.

**Staging Areas**

Construction staging areas would occur at several locations to facilitate construction of the Proposed Project. The Proposed Project would use the Pajaro Tank site (APN 117-263-006-000), the Bluff/Jensen Tank site (APN 117-033-005-000), the Transmission Booster Pump Station site (APN 117-121-003-000), a Caltrans-owned parcel located between Hilltop Road and SR 1 (no APN assigned), and the Moss Landing Middle School (APN 413-014-001-000) as staging areas for construction. In addition, the Proposed Project includes up to 7,000 sf of staging areas located at the District's offices at 136 San Juan Road. The majority of staging at this location would be located within the existing paved parking area. An additional staging area would be located adjacent to the existing hydropneumatic tank.

**Site Preparation**

Site Preparation would include the following Project activities.

*Demolition*

The Proposed Project includes both well removal and demolition of existing structures on some of the Project Component sites. For the Iron and Manganese System installed at Pajaro Well No. 1 located at the District's office at 136 San Juan Road, some existing well piping and other site equipment would be removed to make way for the site improvements. For the Transmission Booster Pump Station located off of Elkhorn Road at the existing SMWS well site, the Project would demolish the existing concrete pad underlying the generator, remove and replace the existing driveway, convert SMWS Wells No. 1 and No. 2 to standby operation, and destroy some above-grade infrastructure at the SMWS well site. Underground pipe components at this site will be removed or abandoned in place. Other demolition activities associated with the Proposed Project include destruction of wells in use by the various small and private water systems in the NOML area. Demolition waste would be disposed of in accordance with all applicable regulations at the Monterey Peninsula Landfill.

*Grading and Trenching*

The Proposed Project would generate 53,130 cubic yards of cut and 53,144 cubic yards of fill, resulting in overall balanced earthwork. All of the tank sites, well sites, and pumping sites would be paved. The Proposed Project would create approximately 12,150 sf (approximately 150 sf of new impervious surfaces and 2,350 sf of replacement impervious surfaces for the Transmission Booster Pump Station

Site, 2,000 sf for the Iron and Manganese Treatment System, and 10,000 sf for Bluff/Jensen Tank and Pump Station site) of total new impervious surfaces compared to existing conditions.

**Construction**

Construction would occur primarily from Monday through Friday between the hours of 8:00 AM and 5:00 PM. However, the Proposed Project would also include nighttime construction for pipeline installation in the public ROW from Sunday night to Friday morning from the hours of 9:00 PM and 5:00 AM. Three (3) construction crews, each consisting of three (3) to four (4) workers, are anticipated to be simultaneously working on the Proposed Project on average. The peak number of construction personnel is anticipated to be about 25 individuals on site, and the average personnel is 12 individuals on site. The District anticipates the Proposed Project to use the following types of construction equipment:

- Excavator
- Backhoe
- Bulldozer
- Skid Steer Loader
- Pipe Fusing Equipment
- Tanks for Drilling Fluid
- Loader
- Work Truck (general use)
- Crane
- Dump Truck
- Flat Bed Delivery Truck
- Water Truck
- Concrete Truck/Mixer
- Asphalt Paver

The Proposed Project would implement two (2) traffic control plans during construction as part of permitting regulations for the Project, one (1) for Caltrans and another for Monterey County, which would result in as-needed temporary lane/road closures, detours, and other traffic control methods. Locations of lane/road closures would change over the course of construction due to the linear nature of the pipeline components of the Proposed Project. Construction waste would be disposed of in accordance with all applicable regulations at the Monterey Peninsula Landfill operated by ReGen and located at 14201 Del Monte Blvd, Salinas, CA 93908.

The District would designate a construction coordinator to serve throughout construction of the Proposed Project. The construction coordinator would respond to community questions related to ongoing construction. In addition, the construction coordinator would respond to any reported emergencies within 24 hours during construction of the Proposed Project and take remedial actions, as necessary. The contact information for the construction coordinator would be posted conspicuously at each major construction site associated with the Proposed Project.

**Schedule**

Construction is anticipated to occur over the course of approximately 24-30 months. Construction for Phase 1 of the Proposed Project is expected to begin in 2026 and conclude by early 2028 over a course of 24 months. Construction for Phase 2 of the Proposed Project is expected to begin in 2027 and conclude by mid-2028 over a course of 18 months. The anticipated schedule of these construction activities is as follows (construction phases are anticipated to overlap):

1. Site Construction – 750 days
2. Pipeline construction – 750 days
3. Well Demolition – 120 days

## 1.8 SITE ACCESS

Construction of the Proposed Project would utilize multiple staging areas as described above. SR 1 and Salinas Road provide regional access to the Project area. Local access to the Proposed Project would vary based on the location of each specific component. The majority of pipeline installation area would be accessed from existing public roadways. A new 20-foot wide driveway with a rolling gate connected to Jensen Road would provide access to the Bluff/Jensen Tank and Pump Station site. A replacement paved driveway would provide access to the Transmission Booster Pump Station. Additionally, existing access driveways would provide access to the Iron and Manganese Treatment System and the Pajaro Tank site.

## 1.9 OPERATION AND MAINTENANCE

Once operational, the District would provide water service to approximately 967 connections within the Project area via a new consolidated water system. The SWS, SMWS, PWS, and the two (2) state regulated small water systems and nine (9) locally regulated small water systems within the NOML area would cease to exist. In addition, the District would now serve 43 connections previously reliant on private wells. Private wells would be retained for irrigation or destroyed in accordance with County regulations on a case-by-case basis, largely determined by individual well owners. The Proposed Project would generate a maximum of one (1) daily vehicle trip to one (1) or more Project components for regular maintenance and testing.

## 1.10 PROJECT-RELATED APPROVALS, PERMITS, AND CLEARANCES

The following is a list of federal, state, and regional/local permits and approvals and clearances that may be required for the implementation of the Proposed Project, subject to final project design and applicable agency review and approval.

<u>Federal</u>

- U.S. Fish and Wildlife Service – Section 7 Incidental Take Permit

<u>State</u>

- Caltrans – Encroachment Permit
- California Department of Fish and Wildlife – 1602 Lake and Streambed Alteration Agreement
- California Department of Fish and Wildlife – 2081 Incidental Take Permit
- Regional Water Quality Control Board – Stormwater Pollution Prevention Plan

- State Water Resources Control Board, Division of Financial Assistance – State Revolving Fund Financing Approval
- State Water Resources Control Board, Division of Drinking Water – Domestic Water Supply Permit Application
- California Coastal Commission ("CCC") – Coastal Development Permit (required in the event that the Coastal Development Permit decision by County of Monterey's decision is appealed)

Regional/Local

- County of Monterey – Encroachment Permit
- County of Monterey – Local Coastal Development Permit
- County of Monterey – Well Destruction Permit
- County of Monterey – Grading Permit
- County of Monterey – Tree Removal Permit
- Monterey County LAFCO – Approval of Sphere of Influence Amendment, Annexation, and Boundary Adjustment
- Monterey Bay Air Resources District – Authority to Construct
- Monterey Bay Air Resources District – Permit to Operate
- City of Watsonville – Industrial Wastewater Discharge Permit

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## Chapter 2. Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the Proposed Project involving at least one (1) impact that is a "potentially significant impact," as discussed in the Initial Study analysis on the following pages.

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

**ENVIRONMENTAL FACTORS NOT AFFECTED**

The following environmental resources were considered as part of the scoping and environmental analysis conducted for the Proposed Project. The potential for adverse impact to these resources were not identified. Consequently, there is no further discussion regarding these resources in this document.

Environmental Justice: California Government Code §65040.12 defines environmental justice as the "fair treatment of people of all races, cultures and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." The State of California's Office of Environmental Health Hazard Assessment ("OEHHA") provides and maintains the CalEnviroScreen mapping tool, which uses environmental, health, and socioeconomic information to identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution's effects (OEHHA, 2025). The CalEnviroScreen viewer indicates that the Proposed Project area is in an overall percentile of 72 or greater, which indicates that the communities where the Proposed Project would occur bear a disproportionate socioeconomic impact from pollution burden than the majority of other census tracts in California. However, the Proposed Project would improve water quality for communities within the Proposed Project area compared to existing conditions. The Proposed Project costs would not adversely affect any minority or low-income populations and/or adversely alter the socioeconomic conditions of populations that reside in the Proposed Project area. The Proposed Project would not include features that would result in a disproportionately adverse human health or environmental effect, or have physical effects on minority or low-income populations. The Proposed Project would benefit the existing population of the Project area by providing reliable, high-quality potable water from a centralized purveyor. For these reasons, the Proposed Project would have a net beneficial effect and would not result in any adverse impacts related to environmental justice considerations.

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## Chapter 3. Determination

On the basis of this initial evaluation:

☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION 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.

Judith Vazquez-Varela

Digitally signed by: Judith Vazquez-Varela
DN: CN = Judith Vazquez-Varela email = judyvazquez@pajarosunnymesa.com C = US O = Pajaro/Sunny Mesa CSD
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*Judith Vazquez-Varela, General Manager*

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# Chapter 4. Environmental Setting and Impacts

The following chapter assesses the environmental impacts associated with the Proposed Project and identifies mitigation measures to reduce potentially significant impacts to less than significant, as appropriate.

**EVALUATION OF ENVIRONMENTAL IMPACTS**

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (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 project-specific screening analysis).
2. All answers must consider the whole action involved, including offsite as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one (1) or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were in the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the Project.

6. Lead agencies are encouraged to incorporate information sources for potential impacts (e.g., general plans, zoning ordinances) into the checklist references. Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

    a) The significance criteria or threshold, if any, used to evaluate each question; and
    b) The mitigation measure identified, if any, to reduce the impact to less than significance.

## 4.1. AESTHETICS

### Environmental Setting

The Proposed Project is located north of the community of Moss Landing in northern unincorporated Monterey County and is primarily within existing road ROWs and previously disturbed sites. The topography of the region varies from flat, farmed areas, to rolling hills with broad valleys.

The existing visual character of the Proposed Project area is comprised of views of the Gabilan Mountains, the Pajaro River, the Pacific Ocean, agricultural lands (i.e., row crops and associated farm infrastructure), rural residences, and industrial development in unincorporated Monterey County. The Proposed Project area consists primarily of existing disturbed and developed areas, including roadway ROWs, a private farm road, an existing agricultural field, at the District's existing SMWS well site, SMWS tank site, and offices, as shown in **Figure 5**. The roadway ROWs of the Proposed Project area include Salinas Road, Hilltop Road, Jensen Road, Bluff Road, Springfield Road, Struve Road, unnamed farm roads, and SR 1. The majority of the Project would be within existing ROWs and previously disturbed sites. The Iron and Manganese Treatment System component would be in a residential and agricultural area at the District office located at 136 San Juan Road in Pajaro.

Visually sensitive areas are those containing scenic resources visible from existing, potential, and proposed scenic routes. Prominent visual resources in the project vicinity include Elkhorn Slough and the surrounding wetland areas, McClusky Slough, Bennett Slough, Zmudowski State Beach Park, SR 1, Moss Landing Harbor, and the Pacific Ocean. The *North County Area Plan Scenic Highway Corridors & Visual Sensitivity* map of the North County Area Plan identifies "sensitive" or "highly sensitive" areas of scenic slopes running east-west along Salinas Road near a portion of the Proposed Project area; however, the Proposed Project area is not within a visually sensitive area of the North County Area Plan or Monterey County General Plan (Monterey County, 2010). There are no officially designated state scenic highways in the Project area; however, a portion of the Proposed Project area is located in the view of SR 1, a state-eligible scenic highway (Caltrans, 2025). There are no locally designated scenic roads in the Project area.

### Regulatory Framework

#### *State*

***California Scenic Highways Program*:** The Legislature created the California State Scenic Highway program in 1963. This program's purpose is to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The program includes a list of highways that are either designated or eligible for designation as a scenic highway. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. In Monterey County, the state only officially designates portions of SR 1 south of the intersection with SR 68 near the City of Monterey (Caltrans, 2025). While the portions of SR 1 in the vicinity of the Project area are not officially designated as a scenic highway, Caltrans considers this stretch of SR 1 as an eligible scenic highway.

***Local***

***2010 Monterey County General Plan*:** The 2010 Monterey County General Plan includes goals and policies related to the preservation of visual integrity. The following goal from the 2010 Monterey County General Plan would apply to the inland portions of the Proposed Project:

**Goal OS-1** Retain the character and natural beauty of Monterey County by preserving, conserving, and maintaining unique physical features, natural resources, and agricultural operations.

***North County Area Plan:*** The North County Area Plan is one of the area plans that are included in the 2010 Monterey County General Plan. The North County Area Plan further defines the goals and policies of the 2010 Monterey County General Plan as it is more specific due to the limited geographic focus. Policies in the North County Area Plan are consistent with the Monterey County General Plan but are adapted to the development opportunities, constraints, and natural resources unique to that region. The following policy from the North County Area Plan would apply to inland portions of the Proposed Project:

**Policy NC-3.1** Within areas designated as “sensitive” or “highly sensitive” on the Scenic Highway Corridors and Visual Sensitivity Map, landscaping or new development may be permitted if the development is located and designed in such a manner that public views are not disrupted.

***1982 Monterey County General Plan*:** The 1982 Monterey County General Plan includes goals and policies related to the preservation of visual integrity. The following goals from the 1982 Monterey County General Plan would apply to the coastal portions of the Proposed Project:

**Goal 56.2.1** The County shall, in accordance with the Monterey County Subdivision Ordinance, require that all new utility lines be placed underground.

**Goal 56.2.2** The County shall seek to place existing utility lines underground whenever feasible.

***North County LUP*:** The following aesthetics policies provided in the North County LUP are applicable to the coastal portions of the Proposed Project:

**6.4.B.5:** Visual access from the nearest public road to the shoreline of Elkhorn Slough and other wetlands shall be maintained and enhanced for the enjoyment of the public in a manner compatible with other land uses permitted in the plan. Visual access to Moss Landing Harbor shall be retained as part of improvements to Highway 1 and adjacent properties. The development of scenic viewpoints where physical access is not appropriate is encouraged.

**6.4.G.1:** Future land use planning should be compatible with the goal of providing visual access. To this end, all new structures and ancillary facilities within the public viewshed should be located and designed to be compatible with the existing character of the natural and built environments as specified in Section 2.2 of this plan, and to retain existing visual access to the shoreline from major public viewpoints and viewing corridors. Particular attention should be given to the location and design of new roads or improvements to existing roads.

***Monterey County Code:*** The County of Monterey Zoning Ordinance (Title 20) includes development restrictions for areas inside the Coastal Zone. Title 20 defines a "Substantial adverse visual impact" as a visual impact which, considering the condition of the existing viewshed, the proximity and duration of

view when observed with normal unaided vision, causes an existing visual experience to be materially degraded (Section 20.06.1275).

The County of Monterey Zoning Ordinance (Title 21) requires an evaluation of potential aesthetic-related effects and a determination of significance from common public view areas in areas outside of the Coastal Zone. "Common public viewing area means a public area such as a public street, road, designated vista point, or public park from which the general public ordinarily views the surrounding viewshed" (Section 21.06.195). Monterey County defines a substantial adverse visual impact as a "visual impact which, considering the condition of the existing viewshed, the proximity and duration of view when observed with normal unaided vision, causes an existing visual experience to be materially degraded" (Section 21.06.1275).

| | **Would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a) | Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ■ | ☐ |
| b) | Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings in a state scenic highway? | ☐ | ☐ | ☐ | ■ |
| c) | In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | ☐ | ☐ | ■ | ☐ |
| d) | Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ☐ | ☐ | ■ | ☐ |

**Impact Discussion**

*a. Would the project have a substantial adverse effect on a scenic vista?*

The Proposed Project would not have a substantial adverse effect on a scenic vista. While the Proposed Project area is in the vicinity of areas designated as visually sensitive, the Proposed Project would primarily be located underground and would not encroach on or impact visually sensitive resources.

***Construction***

The Proposed Project could result in temporary construction related effects. However, the Proposed Project would be located in previously disturbed areas and primarily in road ROWs. The Proposed Project consists of the consolidation of water systems and the construction of water connections and system improvements. Construction associated with the pipeline components of the Proposed Project would not result in additional aesthetic related impacts since these components would be located underground. In addition, the aboveground components of the Proposed Project, including the Iron and Manganese Treatment System, Transmission Booster Pump Station, and Bluff/Jensen Tank and Pump

Station site, would be constructed at sites either developed with existing infrastructure or that are otherwise disturbed. Upon completion of construction, temporary equipment and materials would be removed, and most of the improvements would be below ground (e.g., pipelines). Lastly, the connection of potable water service to adjacent parcels would not result in any new visual impacts. Therefore, the Proposed Project would have a **less-than-significant impact from construction** on scenic vistas.

***Operation***

The Proposed Project would not result in a substantial adverse effect on a scenic vista due to operation. Most of the components of the Proposed Project would be located below ground in existing roadway ROWs. Other components of the Proposed Project, including the Bluff/Jensen Tank and Pump Station site and the Transmission Booster Pump Station, would be installed within existing disturbed sites and screened from view by security fencing. The Iron and Manganese Treatment System would be installed at the District office at 136 San Juan Road, which is already largely screened from public view by existing landscaping, fencing, and structures. The Proposed Project area would not change land uses from existing uses and would be consistent with the current zoning designations and allowable land uses throughout the Proposed Project area. Therefore, the Proposed Project would have a **less-than-significant operational impact** regarding scenic vistas.

*b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings in a state scenic highway?*

The Proposed Project would not substantially damage scenic resources in a state scenic highway. While the portion of SR 1 near the Proposed Project is defined as a eligible state scenic highway, it does not carry an official scenic designation. As a result, the Proposed Project is not located near a designated state scenic highway or County designated scenic road. In addition, construction of the Proposed Project would not impact trees, rock outcroppings, or historic buildings. **No impact** would occur.

*c. Would the project, in nonurbanized 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 points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The existing visual character of the Proposed Project area is primarily comprised of rural land uses, including agriculture and residential. The Proposed Project would not adversely impact the existing visual character of the site or its surroundings or degrade the quality of public views of the site. The Proposed Project consists of the consolidation of the PWS, SMWS, and SWS, as well as the various water connections and additional infrastructure improvements to facilitate O&M of the new water system, as shown in **Figures 5a** and **5b**. Construction and operation of the Proposed Project would be within existing roadway ROWs and previously disturbed sites. The consolidation of water systems and construction of infrastructure improvements would not result in the construction of new infrastructure or uses that would generate an aesthetic impact. Water system infrastructure (i.e., pipelines) would be constructed underground to extend services to adjacent uses. The Iron and Manganese Treatment System components would be located at the District offices at 136 San Juan Road and would be screened by existing landscaping, fencing, and structures. The Transmission Booster Pump Station would be located at the previously disturbed SMWS well site near Elkhorn Road and would be screened from public view by security fencing, as well as by existing landscaping and vegetation. The Bluff/Jensen Tank and Pump Station site would be located at a previously disturbed site near Hilltop Road and Jensen Road and would be screened from public view by security fencing. Construction and operation of the Proposed Project would be consistent with existing development and would therefore not change the

site's existing visual character. Above ground facilities and infrastructure would be designed and constructed consistent with the County's design specifications. For these reasons, the Proposed Project would have a **less-than-significant impact** regarding the substantial degradation of the existing visual character or quality of public views and its surroundings.

*d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

The Proposed Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views of the area. Daytime construction would not result in any new sources of nighttime lighting or glare. However, nighttime construction associated with pipeline installation would require temporary lighting to illuminate nighttime construction activities. Nighttime construction would be limited to pipeline work within the roadway ROWs, Sunday evenings to Friday mornings from the hours of 9:00 PM to 5:00 AM. Nighttime construction lighting would be limited to the minimum necessary to provide safe working conditions for construction crews, and would be angled downward towards the construction area. In addition, given the linear nature of the pipeline components of the Proposed Project, nighttime construction activities would be limited to single locations. Typical pipeline installation progresses at a rate of 150 to 250 feet per day. Therefore, nighttime construction work for the Proposed Project would not result in substantial new sources of temporary daytime or nighttime light or glare that would adversely affect views in the area. All impacts from construction would be temporary and **less-than-significant**.

The Proposed Project would not introduce any new sources of light or glare at the majority of Project components, as the water pipelines and service connections would be underground, the Iron and Manganese Treatment System would be located at the District offices at 136 San Juan Road, and the Transmission Booster Pump Station and the Bluff/Jensen Tank and Pump Station site would be located at previously disturbed sites. The Proposed Project would potentially include exterior lighting for security and maintenance purposes. However, the lighting would be consistent with the County of Monterey's lighting ordinances which requires that all exterior lighting be unobtrusive, harmonious with the local area, and constructed or located so that only the intended area is illuminated, and off-site glare is fully controlled. In addition, exterior lighting for Project components in the Coastal Zone would be subject to an approved lighting plan (County of Monterey Municipal Code Sections, 20.30.060, 20.32.060, and 21.63.020). Therefore, the Proposed Project would have a **less-than-significant impact** with regards to creating a new source of permanent substantial light or glare.

## 4.2. AGRICULTURAL AND FORESTRY RESOURCES

### Terminology

The California Department of Conservation ("DOC") identifies and designates important farmland throughout the state as part of the Farmland Mapping and Monitoring Program ("FMMP"). Farmland is classified as follows:

- **Prime Farmland.** 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. These are Class I and Class II soils.
- **Farmland of Statewide Importance.** 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 (4) years prior to the mapping date.

- **Unique Farmland.** Farmland of lesser quality soils used to produce the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climactic zones in California.
- **Grazing Land.** Government Code §65570(b)(3) defines Grazing Land as: "...land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock." The minimum mapping unit for Grazing Land is 40 acres. Grazing Land does not include land previously designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance, and heavily brushed, timbered, excessively steep, or rocky lands which restrict the access and movement of livestock.
- **Urban and Built-Up Land.** Land occupied by structures with a building density of at least one (1) unit to 1.5 acres, or approximately six (6) structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- **Other Land.** 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 by urban development and greater than 40 acres is mapped as Other Land.

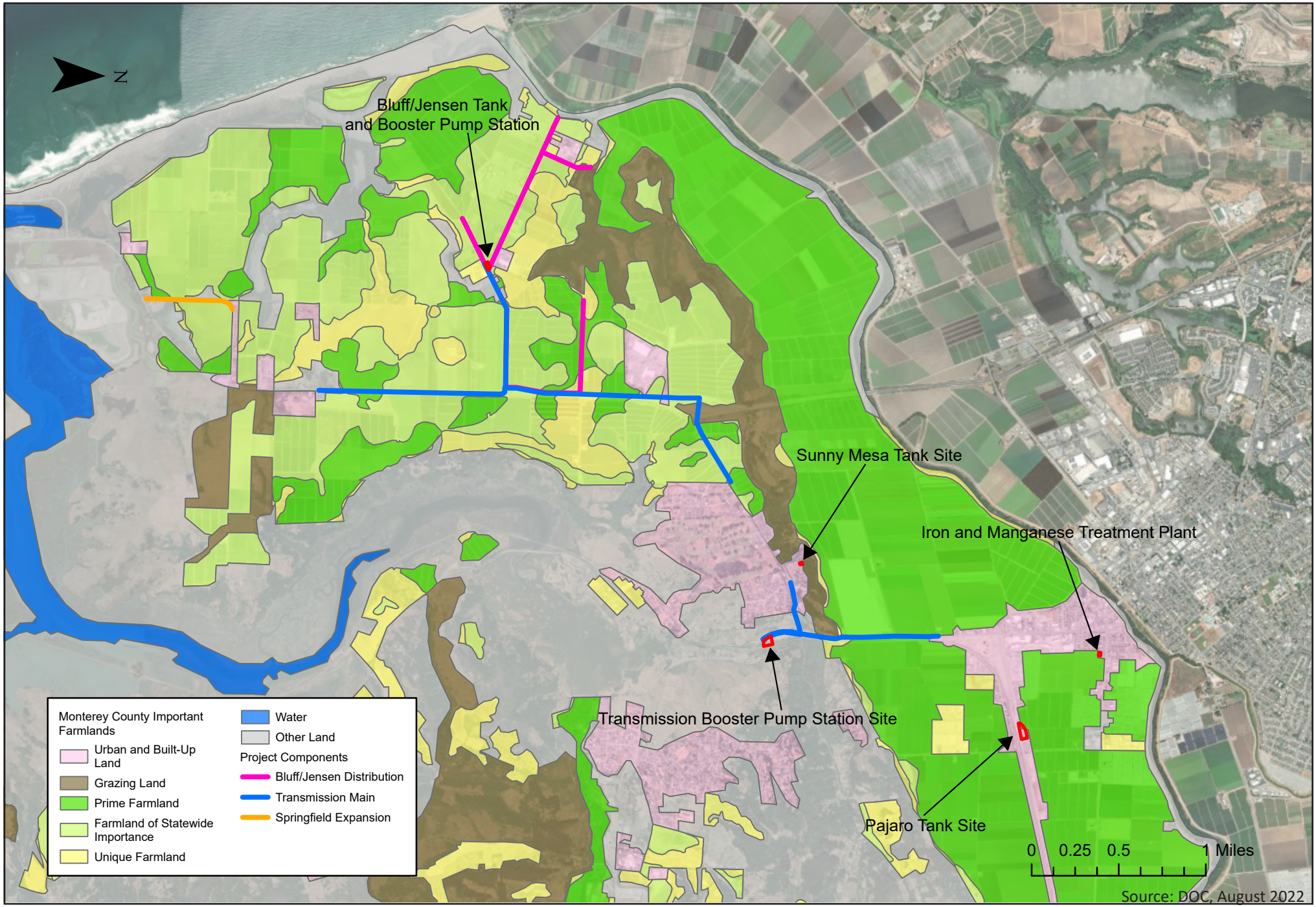
California Public Resources Code §4526 and the California Board of Forestry and Fire Protection defines "Timberland" as land not owned by the federal government nor designated as experimental forest land, which is capable and available for growing any commercial tree species.

**Environmental Setting**

Agricultural activities consisting of farming and livestock grazing represent the largest industry in the County of Monterey and contribute significantly to the region’s economy. The most productive farmlands in the County are located in the North County, Greater Salinas, and Central Salinas Valley Planning Areas. According to the 2022 Census of Agriculture for Monterey County, there are 1,338,477 acres designated as farmland (USDA, 2022). Monterey County's gross agricultural production in 2021 totaled 5.4 billion dollars (USDA, 2022).

Portions of the Proposed Project are located within or adjacent to areas where agricultural activities occur. Historically agriculture has been the primary economic activity in the northwest region of Monterey County. The FMMP designates the Proposed Project area and land adjacent to the Proposed Project area as *Other Land, Urban and Built-up Land, Unique Farmland, Prime Farmland, and Farmland of Statewide Importance* (see **Figure 7**) (DOC, 2022a). The Proposed Project does not include work on any parcel are enrolled in a California Land Conservation Act of 1965 (“Williamson Act”) contract (DOC, 2022b).

CEQA requires the evaluation of forest and timber resources where they are present. The Project is within existing agricultural and rural residential areas. The Proposed Project area does not contain 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).




Title:

# Important Farmland Map

| | |
|---|---|
| Date | 7/1/2025 |
| Scale | N/A |
| Project | 2023.47 |


Monterey | San Jose
**Denise Duffy and Associates, Inc.**
Environmental Consultants Resource Planners
947 Cass Street, Suite 5
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(831) 373-4341


Figure 7

**Regulatory Framework**

***Federal***

***Farmland Protection Policy Act*:** The FPPA seeks to reduce federal program impacts on unnecessary and irreversible conversion of farmland to nonagricultural uses. This act requires federal agencies to develop and review policies to implement the FPPA every two (2) years and comply with state and local programs and policies protecting farmland. The FPPA includes land such as forests, pasture, crop, or other land that may be used for farmland in the future. However, The FPPA does not include water or urban land. FPPA uses farmland classifications of "prime farmland," "unique farmland," and "land of statewide importance" (USDA, 2024). Projects are subject to the requirements of the FPPA if they involve federal oversight or funding and would potentially result in the irreversible conversion of farmland to non-agricultural use. DD&A conducted a Land Evaluation Site Assessment ("LESA") to confirm compliance with the FPPA as shown in **Appendix A**.

***State***

***California Land Conservation Act of 1965:*** The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is the state's primary program aimed at conserving private land for agricultural use. The California Department of Conversation prepares countywide maps of lands enrolled in the Williamson Act contracts. The Williamson Act provides a voluntary, locally administered program offering reduced property taxes on lands whose owners place enforceable restrictions on land use through contracts between the individual landowners and local governments.

***Local***

***2010 Monterey County General Plan*:** The following goals and policies provided by the 2010 Monterey County General Plan may be applicable to the inland portions of the Proposed Project.

**Goal AG-1**: Promote the long-term conservation of productive and potentially productive agricultural land.

**Policy AG-1.1**: Land uses that would interfere with routine and ongoing agricultural operations on viable farmlands designated as prime, of statewide importance, unique, or of local importance shall be prohibited.

**Policy AG-1.2**: The purpose of the following criteria shall be used to establish agricultural buffers … to protect the existing agricultural operations: … Buffers shall be provided from the proposed new use and not from the adjacent agricultural land unless by mutual agreement between the landowners.

***North County Area Plan*:** None of the policies provided in the North County Area Plan are applicable to the inland portions of the Proposed Project.

***1982 Monterey County General Plan*:** None of the policies provided by the 1982 Monterey County General Plan are applicable to the coastal portions of the Proposed Project.

***North County LUP*:** The following agricultural policy provided in the North County LUP is applicable to the coastal portions of the Proposed Project:

**2.6.2.1:** Prime and productive farmland designated for Agricultural Preservation and Agricultural Conservation land use shall be preserved for agricultural use to the fullest extent

possible as consistent with the protection of environmentally sensitive habitats and the concentration of development.

***Monterey County Code:*** The County of Monterey Zoning Ordinance (Title 20) includes development restrictions for agricultural and grazing lands for areas inside the Coastal Zone. Title 20 defines "Agriculture" as meaning the art or science of cultivating the ground, harvesting of crops, rearing and management of livestock, tillage, husbandry, farming, horticulture, and forestry, the science and art of the production of plants and animals useful to man or woman, and wildlife management (Section 20.06.010). Development on agricultural land within the Coastal Zone is generally limited to uses supporting continued agricultural use and conservation. Developments within these areas typically require a Coastal Administrative Permit or a Coastal Development Permit.

The County of Monterey Zoning Ordinance (Title 21) includes development restrictions for agricultural and grazing lands for areas outside the Coastal Zone. Development on agricultural land within inland areas of the County is generally limited to uses supporting continued agricultural use and conservation. Certain development types within these areas require approval of a use permit.

| **Would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ■ | ☐ |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ■ |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)? | ☐ | ☐ | ☐ | ■ |
| d) Result in the loss of forest land or conversion of forest land to non-forest uses? | ☐ | ☐ | ☐ | ■ |
| 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? | ☐ | ☐ | ■ | ☐ |

**Impact Discussion**

*a. Would the project 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?*

The Transmission Booster Pump Station, Pajaro Tank Site, Sunny Mesa Tank Site, and the Iron and Manganese Treatment System are located within existing disturbed sites and would not convert *Prime Farmland, Unique Farmland, or Farmland of Statewide Importance* to non-agricultural units. In addition, the pipeline components located within roadway ROWs for SR 1, Hilltop Road, and Salinas Road are not located within *Prime, Unique, or Farmland of Statewide Importance*. While some of these pipeline components would be adjacent to such farmland, construction and operation of these components of the Proposed Project would not result in the conversion of adjacent farmland to non-agricultural use. However, the Bluff/Jensen Tank and Pump Station site located on the APN 117-033-005-000 would be located in *Farmland of Statewide Importance* (County, 2025).

The Bluff/Jensen Tank and Pump Station component would result in the permanent conversion of an approximately 0.39 acre portion of the overall 10.6 acre parcel to non-agricultural use. Agricultural operations on the remaining 10.2 acres of APN 117-033-005-000 would not be impacted by the Proposed Project. Furthermore, the overall footprint of Bluff/Jensen Tank and Pump Station component has been limited to the minimum necessary size to house the necessary facilities. Therefore, construction of the Bluff/Jensen Tank and Pump Station would not result in the conversion of a significant area of *Farmland of Statewide Importance* to non-agricultural use. DD&A prepared a LESA for the Bluff/Jensen Tank and Pump Station component of the Proposed Project to comply with Federal Cross-Cutters and confirm that the conversion of agricultural land as part of the Proposed Project would not result in a significant environmental impact (**Appendix A**). Based on the evaluated factors, including soil type, storie index score, surrounding land uses and easements, water availability, and area of conversion, the Bluff/Jensen Tank and Pump Station received a LESA score of 63.7. Projects receiving a score of 60 to 79 points are considered to have a significant impact unless either the Land Evaluation or Site Assessment score is below 20 points. The Site Assessment score was 18 points as shown in **Appendix A**; therefore, the impact from conversion of farmland according to the LESA criteria is considered less-than-significant.

In addition, the proposed 15-foot wide Transmission Main easement running north-south along SR 1 outside of the public roadway (APNs 412-032-011-000 and 117-022-002-000) would include *Farmland of Statewide Importance* and *Unique Farmland* and the proposed 15-foot wide pipeline easement running east-west along an unnamed road in APNs 117-021-013-000 and 117-021-008-000 (see **Figure 7**) would include *Farmland of Statewide Importance* and *Prime Farmland*. However, each of these pipeline easements would be located in disturbed areas away from areas under agricultural cultivation and the proposed 15-foot easement on each parcel would not result in the conversion of significant portions of *Prime Farmland, Unique Farmland,* or *Farmland of Statewide Importance* to non-agricultural uses.

Furthermore, APNs 117-033-055-000, 412-032-011-000, 117-022-002-000, 117-021-013-000, and 117-021-008-000 carry a CAP(CZ) zoning designation and the Monterey County Code Section 20.30.050(B) and 20.30.050(K) conditionally allows public utilities and infrastructure and water system facilities (e.g., wells and storage tanks) serving 15 or more service connections, respectively on lands zoned for CAP(CZ). The Proposed Project would acquire the required permits from the County to allow these conditional uses.

For these reasons, the Proposed Project would have a **less-than-significant impact** regarding the conversion of farmland.

*b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

The Proposed Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. While the Proposed Project includes components located parcels used for agricultural use, these parcels are not subject to a Williamson Act contract. The Proposed Project would introduce non-agricultural uses to small portions of APNs 117-033-005-000, 412-032-011-000, 117-022-002-000, 117-021-013-000, and 117-021-008-000 as described above. However, Section 20.30.050(K) identifies "Water system facilities including wells and storage tanks serving fifteen (15) or more service connections" as a conditional allowed use for parcels zoned as CAP(CZ). The Proposed Project is seeking a Coastal Development Permit through the County for these components of the Proposed Project, therefore the proposed pipeline easements and the Bluff/Jensen Tank and Pump Station site would not conflict with existing zoning for agricultural use. **No impact** would occur.

*c. Would the project 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)?*

The Proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land. No forest or timberland is located on or in the vicinity of the Proposed Project area. **No impact** would occur.

*d. Would the project result in the loss of forest land or conversion of forest land to non-forest uses?*

Please refer to the discussion above. The Proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. **No impact** would occur.

*e. Would the project 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?*

The Proposed Project consists of the consolidation of existing water systems. While components of the Proposed Project may occur on or adjacent to existing agricultural uses, construction and operation of the Proposed Project would not result in the conversion of substantial portions of farmland to non-agricultural use. Conversion of farmland would be kept to the minimum possible extent needed to install the Proposed Project components, including the 0.39 acre area for the Bluff/Jensen Tank and Pump Station site, the 15-foot wide pipeline within an easement along SR-1, and the 20-foot-wide pipeline within an easement along a portion of an unnamed road connected to Hilltop Road. In addition, these components of the Proposed Project are sited away from areas of agricultural cultivation to the fullest extent possible. Furthermore, the APNs containing important farmland all carry a CAP(CZ) zoning designation, which conditionally allows public utilities and infrastructure and water system facilities (e.g., wells and storage tanks) serving 15 or more service connections per Monterey County Code Sections 20.30.050(B) and 20.30.050(K). There is no forest land on or adjacent to the Proposed Project area. Therefore, the Proposed Project would have a **less-than-significant impact** with regards to the conversion of agricultural and forestry land.

## 4.3. AIR QUALITY

### Environmental Setting

The Proposed Project is in the North Central Coast Air Basin ("NCCAB"), which encompasses Santa Cruz, San Benito, and Monterey counties. The NCCAB is under the jurisdiction of the Monterey Bay Air Resources District ("MBARD"). MBARD is responsible for producing an Air Quality Management Plan ("AQMP") that reports air quality and regulates stationary air pollution sources throughout the NCCAB. MBARD is also responsible for measuring the concentration of pollutants and comparing those concentrations against the Ambient Air Quality Standards ("AAQS"). AAQS establish levels of air quality maintenance required to protect the public from the adverse effects of air pollution and are established for "criteria air pollutants" which include ozone, carbon monoxide, particulate matter less than 10 microns in diameter, 2.5 microns in diameter, nitrogen dioxide, sulfur dioxide, and lead. MBARD is responsible for monitoring criteria pollutants to determine whether they are in attainment or not in attainment with the AQMP. **Table 5** illustrates the attainment status for criteria pollutants.

**Table 5**
**Attainment Status for the NCCAB**

| Pollutants | State Designation | Federal Designation |
|---|---|---|
| Ozone ($O_3$) | Nonattainment – Transitional | Attainment |
| Inhalable Particulates ($PM_{10}$) | Nonattainment | Attainment |
| Fine Particulates ($PM_{2.5}$) | Attainment | Attainment |
| Carbon Monoxide (CO) | Monterey Co. – Attainment | Attainment |
| Carbon Monoxide (CO) | San Benito Co. – Unclassified | Attainment |
| Carbon Monoxide (CO) | Santa Cruz Co. – Unclassified | Attainment |
| Nitrogen Dioxide ($NO_2$) | Attainment | Attainment |
| Sulfur Dioxide ($SO_2$) | Attainment | Attainment |
| Lead | Attainment | Attainment |

Source: MBARD, 2017. 2012 – 2015 AQMP

MBARD has set air quality thresholds of significance for the evaluation of projects. **Table 6** illustrates the thresholds of significance used to determine if a project would have a significant air quality effect during construction. In addition to these thresholds, MBARD has also determined a significant short-term construction generated impact would occur if more than 2.2 acres of major grading or excavation, or 8.1 acres of minimal earthmoving per day was to occur (MBARD, 2008).

**Table 6**
**Thresholds of Significance - Construction Emissions**

| Pollutant | Threshold of Significance (lb./day) |
|---|---|
| Nitrogen Oxides ($NO_x$) | 173 |
| Reactive Organic Gases (ROG) | 137 |
| Respirable Particular Matter ($PM_{10}$) | 82 |
| Fine Particulate Matter ($PM_{2.5}$) | 55 |
| Carbon Monoxide (CO) | 550 |

Source: MBARD, 2016. Guidelines for Implementing CEQA.

**Table 7** illustrates the thresholds of significance used to determine if a project would have a significant air quality effect on the environment during operation.

**Table 7**
**Thresholds of Significance - Operational Emissions**

| Pollutant | Threshold of Significance (lb./day) |
|---|---|
| Nitrogen Oxides ($NO_x$) | 137 |
| Reactive Organic Gases (ROG) | 137 |
| Respirable Particular Matter ($PM_{10}$) | 82 |
| Fine Particulate Matter ($PM_{2.5}$) | 55 |
| Carbon Monoxide (CO) | 550 |

Source: MBARD, 2016. Guidelines for Implementing CEQA.

The California Air Resources Board ("CARB") defines a sensitive receptor as children, elderly, asthmatic, and others who are at elevated risk of negative health outcomes due to exposure to air pollution (CARB, 2024). Pursuant to California Health and Safety Code Sec. 42705.5, a sensitive receptor includes hospitals, schools and day cares centers and such locations as the district or state board may determine. MBARD similarly defines sensitive receptors and requires any explanation of sensitive receptors to draw a relationship to the Proposed Project area and potential air quality impacts (MBARD, 2008). Sensitive receptors are more susceptible to the effects of air pollution than the general population. Land uses that are considered sensitive receptors include residences, schools, and health care facilities. Sensitive receptors in the vicinity of the project consist of residences along the road ROWs.

Common sources of odors and odor complaints include wastewater treatment plants, transfer stations, coffee roasters, painting/coating operations, and landfills. The Proposed Project is located in a residential/agricultural area and would not generate significant odors during construction or operation.

***Climate and Topography***

Climatological conditions, an area's topography, and the quantity and type of pollutants released commonly determine ambient air quality. The NCCAB covers an area of 5,159 square miles along the Central Coast. The northwest sector of the NCCAB is dominated by the Santa Cruz Mountains. The Diablo Range marks the northeastern boundary. The Santa Clara Valley extends into the northeastern tip of the NCCAB. Further south, the Santa Clara Valley becomes the San Benito Valley, which runs northwest-southeast, with the Gabilan Range as its western boundary. To the west of the Gabilan Range is the Salinas Valley, which extends from Salinas at the northwest end to south of King City. The coastal Santa Lucia Range defines the western side of the valley.

Climate, or the average weather condition, affects air quality in several ways. Wind patterns can remove or add air pollutants emitted by either stationary or mobile sources. Inversion, a condition where warm air traps cooler air underneath it, can hold pollutants near the ground by limiting upward mixing (dilution). Communities with cold climates may burn wood or other fuels for residential heating, whereas areas with hot climates may have higher emissions or some pollutants from automobiles. Topography also plays a part, and valleys often trap emissions by limiting lateral dispersal.

A semi-permanent high-pressure cell in the eastern Pacific, the Pacific High, is the basic controlling factor in the climate of the NCCAB. In the summer, the high-pressure cell is dominant and causes persistent west and northwest winds over the entire coast. Air descends in the Pacific High, forming a stable temperature inversion of hot air over a cool coastal layer of air. The onshore air currents pass over cool ocean waters to bring fog and relatively cool air into the coastal valleys. The warmer air aloft acts as a lid to inhibit vertical air movement. During the winter, the Pacific High migrates southward and has less influence on the NCCAB. Air frequently flows in a southeasterly direction out of the Salinas and San Benito Valleys, especially during night and morning hours. The general absence of deep, persistent

inversions and the occasional storm systems usually result in good air quality for the NCCAB in winter and early spring.

**Regulatory Framework**

***Federal***

***U.S. Environmental Protection Agency*:** At the federal level, the USEPA implements national air quality programs. FCAA, signed in 1970, provides air quality mandates used by the USEPA. Congress amended the FCAA in 1977 and again in 1990.

***Federal Clean Air Act*:** The FCAA required the USEPA to establish National Ambient Air Quality Standards ("NAAQS") and set deadlines for their attainment. Two (2) types of NAAQS exist: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions. The FCAA allows states to adopt additional or more health-protective standards. **Table 8** compares the California Ambient Air Quality Standards ("CAAQS") and the NAAQS.

**Table 8**
**Summary of Ambient Air Quality Standards**

| Pollutant | Averaging Time | California Standard* | National Standards (Primary) |
|---|---|---|---|
| Ozone | 1-Hour | 0.09 ppm | - - |
| Ozone | 8-Hour | 0.07 ppm | 0.07 ppm |
| $PM_{10}$ | AAM | 20 µg/$m^3$ | - - |
| $PM_{10}$ | 24-Hour | 50 µg/$m^3$ | 150 µg/$m^3$ |
| $PM_{2.5}$ | AAM | 12 µg/$m^3$ | 9 µg/$m^3$ |
| $PM_{2.5}$ | 24-Hour | No standard | 35 µg/$m^3$ |
| Carbon Monoxide | 1-Hour | 20 ppm | 35 ppm |
| Carbon Monoxide | 8-Hour | 9 ppm | 9 ppm |
| Nitrogen Dioxide | AAM | 0.030 ppm | 53 ppb |
| Nitrogen Dioxide | 1-Hour | 0.18 ppm | 100 ppb |
| Sulfur Dioxide | AAM | - - | 0.03 ppm |
| Sulfur Dioxide | 24-Hour | 0.04 ppm | 0.14 ppm |
| Sulfur Dioxide | 3-Hour | - - | 0.5 ppm (1300 µg/$m^3$) ** |
| Sulfur Dioxide | 1-Hour | 0.25 ppm | 75 ppb |
| Lead | 30- day | 1.5 µg/$m^3$ | - - |
| Lead | Calendar quarter | - - | 1.5 µg/$m^3$ |
| Lead | Rolling 3-month | - - | 0.15 µg/$m^3$ |
| Sulfate | 24-Hour | 25 µg/$m^3$ | No Federal Standards |
| Hydrogen Sulfide | 1-Hour | 0.03 ppm (42 µg/$m^3$) | No Federal Standards |
| Vinyl Chloride | 24-Hour | 0.01 ppm (26 µg/$m^3$) | No Federal Standards |
| Visibility Reducing Particles | 8-hours | Extinction coefficient of 0.23 per kilometer —visibility of 10 miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is < 70%. | No Federal Standards |

Source: https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards
ppm = Parts per Million; ppb = Parts per Billion; µg/m3 = Micrograms per Cubic Meter; AAM = Annual Arithmetic Mean
* For more information on standards visit: https://ww2.arb.ca.gov/our-work/programs/outdoor-air-quality-standards
**Secondary Standard

The FCAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan ("SIP"). The 1990 FCAA Amendments required states with non-attainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The USEPA has the responsibility to review all state SIPs to determine conformance with the mandates of the FCAA and FCAA amendments. The USEPA also determines if implementation will achieve air quality goals. If the USEPA determines a SIP to be inadequate, a Federal Implementation Plan ("FIP") may be prepared for the non-attainment area that imposes additional control measures.

Pursuant to California Clean Air Act ("CCAA") and CCAA amendments, a region must participate in the SIP if the State designates it as a maintenance region. The most recent Federal Plan prepared by MBARD to maintain the 1-hour ozone NAAQS is the 2007 Federal Maintenance Plan for Maintaining the National Ozone Standard in the Monterey Bay Region and adopted rules and regulations.

***State***

***California Air Resources Board*:** CARB is the agency responsible for coordinating and overseeing state and local air pollution control programs in California and implementing the CCAA of 1988. Other CARB duties include monitoring air quality (in conjunction with air monitoring networks maintained by air pollution control districts and air quality management districts), establishing the CAAQS, which in many cases are more stringent than the NAAQS, and setting emissions standards for new motor vehicles.[4] **Table 8** compares the CAAQS and the NAAQS.

***California Clean Air Act*:** The CCAA requires all air districts in the state to endeavor to achieve and maintain CAAQS for Ozone, CO, $SO_2$, and $NO_2$ by the earliest practical date. The CCAA specifies that districts focus particular attention on reducing emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources of emissions. Each district plan is required to either: 1) achieve a five (5) percent annual reduction, averaged over consecutive three (3)-year periods, in district-wide emissions of each nonattainment pollutant or its precursors; or 2) provide for the implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

***Assembly Bills 1807 & 2588 - Toxic Air Contaminants*:** California Assembly Bill ("AB") 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics Hot Spots Information and Assessment Act of 1987) primarily regulate Toxic Air Contaminants ("TACs"). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. This procedure includes research, public participation, and scientific peer review before CARB designates a substance as a TAC. Existing sources of TACs that are subject to the Air Toxics Hot Spots Information and Assessment Act are required to: (1) prepare a toxic emissions inventory; (2) prepare a risk assessment if emissions are significant; (3) notify the public of significant risk levels; and (4) prepare and implement risk reduction measures.

***Local***

***Monterey Bay Air Resources District*:** MBARD is the agency primarily responsible for ensuring that NAAQS and CAAQS are not exceeded and that air quality conditions are maintained in the NCCAB. Responsibilities of the MBARD include, but are not limited to, preparing plans for the attainment of

[4] The emission standards established for motor vehicles differ depending on various factors including the model year, and the type of vehicle, fuel, and engine used.

AAQS, adopting, and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by the FCAA and the CCAA. To achieve NAAQS and CAAQS and maintain air quality, the MBARD has most recently completed the 2012-2015 AQMP for achieving the state ozone standards and the 2007 Federal Maintenance Plan for maintaining federal ozone standards (MBARD, 2017).

To achieve and maintain AAQS, the MBARD has adopted various rules and regulations for the control of airborne pollutants. The applicable MBARD rules and regulations to the Proposed Project include, but are not limited to, the following:

- **Rule 402 (Nuisances).** The purpose of this rule is to prohibit emissions that may create a public nuisance. Applies to any source operation that emits or may emit air contaminants or other materials.
- **Rule 426 (Architectural Coatings).** The purpose of this rule is to limit emissions of volatile organic compounds from architectural coatings.
- **Rule 425 (Use of Cutback Asphalt).** The purpose of this rule is to limit emissions of vapors of organic compounds from the use of cutback and emulsified asphalt. This rule applies to the manufacture and use of cutback, slow cure, and emulsified asphalt during paving and maintenance operations.
- **Rule 424 (NESHAP-Asbestos).** Rule 424 adopts the National Emissions Standards for Hazardous Air Pollutants contained in the Code of Federal Regulations (40 CFR Part 61) pertaining to asbestos removal and building demolitions.

***2010 Monterey County General Plan*:** None of the policies provided by the 2010 Monterey County General Plan are applicable to the inland portions of the Proposed Project.

***North County Area Plan*:** None of the policies provided in the North County Area Plan are applicable to the inland portions of the Proposed Project.

***1982 Monterey County General Plan*:** None of the policies provided by the 1982 Monterey County General Plan are applicable to the coastal portions of the Proposed Project.

***North County LUP:*** There are no air quality policies provided in the North County LUP relevant to the coastal portions of the Proposed Project.

***Monterey County Code:*** There are no regulations provided in the County of Monterey Zoning Ordinance (Title 20) for areas inside the Coastal Zone that are relevant to the Proposed Project.

There are no regulations provided in the County of Monterey Zoning Ordinance (Title 21) for areas outside the Coastal Zone that are relevant to the Proposed Project.

| **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? | ☐ | ☐ | ■ | ☐ |

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | ☐ | ☐ | ■ | ☐ |
| c) Expose sensitive receptors to substantial pollutant concentrations? | ☐ | ☐ | ■ | ☐ |
| d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | ☐ | ☐ | ■ | ☐ |

**Impact Discussion**

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

CEQA Guidelines Section 15125(b) requires that a project be evaluated for consistency with applicable regional plans, including the AQMP. The most recent AQMP update was approved in March 2017. This plan addresses attainment of the state ozone standards and federal air quality standards. The AQMP accommodates growth by projecting growth in emissions based on population forecasts prepared by the Association of Monterey Bay Area Governments ("AMBAG"). Consistency determinations are issued for commercial, industrial, residential, and infrastructure-related projects that have the potential to induce population growth. A project is inconsistent with the AQMP if it has not been accommodated in the forecast projections considered in the AQMP.

The Proposed Project does not include new housing or commercial development, and operation and maintenance of the proposed components would not require new employees. Due to the lack of operational emissions, the Proposed Project would not cause any long-term adverse air quality affects. Because the Proposed Project is necessary to address existing issues related to water quality, water supply reliability, and vulnerabilities to failure, and would not induce additional population growth beyond the levels contemplated in the County's General Plan, the Proposed Project would not conflict with and/or otherwise obstruct implementation of the AQMP. For these reasons, this **impact is less-than-significant**.

*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?*

The MBARD 2016 CEQA Air Quality Guidelines contain standards of significance for evaluating potential air quality effects of projects subject to the requirements of CEQA. According to MBARD, a project would violate an air quality standard and/or contribute to an existing or projected violation if it would emit (from all sources, including exhaust and fugitive dust) less than:

- 137 pounds per day of oxides of nitrogen ($NO_x$),
- 137 pounds per day of reactive organic gases (ROG),
- 82 pounds per day of respirable particulate matter ($PM_{10}$),

- 55 pounds per day of fine particulate matter ($PM_{2.5}$), and
- 550 pounds per day carbon monoxide (CO).

DD&A quantified potential air quality effects were using the California Emissions Estimator Model ("CalEEMod") by relying on information from the District and the project engineer, as well as the CalEEMod project assumptions under the "General Light Industry" land use category.[5]. Air quality calculations are provided in **Appendix B**, **CalEEMod Results**.

***Construction***

The CalEEMod analysis relied on following project inputs to quantify air quality and greenhouse gas ("GHG") emissions: 1) a building area of approximately 43,560 square feet, or approximately one (1) acre, for all proposed structures; 2) linear construction of approximately 46,000 feet, or approximately 8.7 miles, and 3) an approximately 20-month construction schedule.[6] DD&A incorporated measures for dust suppression, as recommended by MBARD, into the model, including watering of exposed areas twice daily, watering unpaved roads twice daily, and sweeping paved roads once per month. **Table 9**, illustrates the emissions generated by construction.

**Table 9**
**Construction Air Quality Emissions[7]**

| Pollutant Emissions (lbs./day) | ROG | $NO_X$ | CO | $SO_2$ | $PM_{10}$ |
|---|---|---|---|---|---|
| **Significance Thresholds (MBARD)** | 137 | 137 | 550 | 150 | 82 |
| **Emissions Generated by the Proposed Project** | 2.11 | 18.7 | 15.6 | 0.05 | 73.3 |
| **Exceed Threshold?** | No | No | No | No | No |

Source: Denise Duffy & Associates, Inc. 2025 CalEEMod. **Appendix B**
Significance Threshold Source: MBARD, 2016

Construction of the Proposed Project would result in minor emissions of criteria air pollutants and would not exceed applicable thresholds established by MBARD. Therefore, the Proposed Project's impacts related to air quality emissions would be less than significant during construction. Furthermore, construction of the Proposed Project would implement standard Best Management Practices ("BMPs") identified by MBARD to ensure emissions are minimized. BMPs include but are not limited to:

[5] CalEEMod land uses describe the types of actions for a given project as opposed to describing the official General Plan land use designations of a project site. While the Proposed Project site carries land use designations for Public/Quasi Public, Agricultural Conservation, Agricultural Preservation, Wetlands and Coastal Strands, and Resource Conservation, the land use of "General Light Industry" was selected to capture the anticipated emissions more accurately from the proposed water system consolidation project.

[6] The construction schedule assumes that all linear construction (i.e., trenching, pipeline installation, and paving) and vertical construction activities would occur simultaneously throughout construction of the Project (i.e., treatment system, pump station, and water tanks). The maximum number of construction workers per day would be 25 workers, and these workers would participate in multiple overlapping construction phases. To accurately model the number of daily trips generated by construction of the Project and to avoid double counting the same workers across overlapping construction phases, the maximum anticipated number of workers, being 25 workers, was incorporated only for the longest phase of construction (i.e., the pipeline installation phase). The pipeline installation phase would begin on the first day of construction and last for approximately 400 days, encompassing the entire construction schedule. The actual construction schedule is anticipated to take approximately 30 months – the use of a 20 month construction window for modeling represents a conservative approach to air quality modeling as modeled emissions would be more concentrated under a 20-month construction scenario.

[7] Maximum daily emissions are based on the highest daily emissions for summer or winter conditions to provide a conservative analysis.

- Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
- Prohibit all grading activities during periods of high wind (over 15 mph).
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four (4) consecutive days).
- Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydro seed area.
- Haul trucks shall maintain at least 2'0" of freeboard.
- Cover all trucks hauling dirt, sand, or loose materials.
- Plant tree windbreaks on the windward perimeter of construction projects if adjacent to open land.
- Plant vegetative ground cover in disturbed areas as soon as possible.
- Cover inactive storage piles.
- Install wheel washers at the entrance to construction sites for all exiting trucks.
- Pave all roads on construction sites.
- Sweep streets if visible soil material is carried out from the construction site.
- Post a publicly visible sign which specifies the telephone number and person to contact regarding dust complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Unified Air Pollution Control District shall be visible to ensure compliance with Rule 402 (Nuisance).
- Limit the area under construction at any one time.

Construction of the Proposed Project would result in minor emissions of criteria air pollutants and would not exceed applicable thresholds established by MBARD. Impacts would be further reduced by the incorporation of BMPs during construction activities as identified above. Therefore, the Proposed Project's impacts related to air quality emissions would be **less-than-significant during construction**.

***Operation***

The Proposed Project would result in operational emissions due to operational energy use and vehicle trips for system maintenance. Based on the CalEEMod analysis, operation of the Proposed Project would not exceed daily MBARD thresholds, see **Table 10** below.

**Table 10**
**Operational Air Quality Emissions**

| Pollutant (lbs./day) | ROG | $NO_X$ | CO | $SO_2$ | $PM_{10}$ |
|---|---|---|---|---|---|
| **Significance Thresholds (MBARD)** | 137 | 137 | 550 | 150 | 82 |
| **Emissions Generated by the Proposed Project** | 8.27 | 19.9 | 20.0 | 0.04 | 1.06 |
| **Exceed Threshold?** | No | No | No | No | No |

Source: Denise Duffy & Associates, Inc. 2025 CalEEMod. **Appendix B**
Significance Threshold Source: MBARD, 2016

Operation of the Proposed Project would result in minor emissions of criteria air pollutants and would not exceed applicable thresholds established by MBARD. Therefore, the Proposed Project's impacts related to air quality emissions would be **less-than-significant during operation**.

*c. Would the project expose sensitive receptors to substantial pollutant concentrations?*

***Construction***

The Proposed Project could expose sensitive receptors to substantial pollutant concentrations. Sensitive receptors, primarily residences, are located along portions of the proposed pipeline alignments. However, given the linear nature of the pipeline components of the Proposed Project, work would not be concentrated in single locations for extended periods of time such that receptors would be exposed to substantial pollutant concentrations during construction.

In addition, there are sensitive receptors located approximately 200 feet southwest of the Bluff/Jensen Tank and Pump Station site, approximately 300 feet southwest of the Transmission Booster Pump Station site, approximately 400 feet southeast (including both preschool and residential sensitive receptors) of the Pajaro Tank where site rehabilitation would occur, and immediately adjacent to the Iron and Manganese Treatment System to be installed at the existing Pajaro Well site. These components of the Proposed Project would result in construction activities being concentrated in single locations for longer periods of time than the pipeline components of the Proposed Project, which could result in increased concentrations of air quality pollutants. However, all air quality emissions for the construction period were found to be below their respective MBARD thresholds as described in **Appendix B**. In addition, the Proposed Project includes construction BMPs to reduce air quality emissions, and construction air quality emissions would be temporary in nature. Therefore, the Proposed Project would have a **less-than-significant construction impact** concerning the exposure of sensitive receptors to substantial pollutant concentrations.

***Operation***

Operational emissions were found to be well below MBARD thresholds as described in **Appendix B**. Once operational, the Proposed Project would not result in the emission of substantial concentrations of air quality pollutants. No sensitive receptors would be exposed to a substantial pollutant concentration during operation of the Proposed Project. Therefore, the Proposed Project would have a **less-than-significant operational impact** concerning the exposure of sensitive receptors to substantial pollutant concentrations.

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

The Proposed Project could generate intermittent odors from construction associated with diesel exhaust that could be noticeable at times. However, given the temporary nature of construction and the phased approach to construction, these potential intermittent odors are not anticipated to result in impacts nor affect a substantial number of people. Odors are not likely to be concentrated in one area for long periods of time during construction due to the linear nature of the pipeline installation. In addition, any odors generated during construction activities would cease upon completion. Operation of the Proposed Project would not generate substantial concentrations of emissions leading to odors or otherwise affecting a substantial number of people. For these reasons, the Proposed Project would have a **less-than-significant impact** concerning the release of other emissions including odors adversely affecting a substantial number of people.

## 4.4. BIOLOGICAL RESOURCES

### Terminology

#### *Special-Status Species*

Special-status species are those plants and animals that have been formally listed or proposed for listing as endangered or threatened or are candidates for such listing under the ESA or the California Endangered Species Act ("CESA"). Listed species are afforded legal protection under the ESA and CESA. Species that meet the definition of rare or endangered under the CEQA Section 15380 are also considered special-status species. Animals identified as "species of special concern" (most of which are species whose breeding populations in California may face extirpation if current population trends continue) on CDFW's "Special Animals" list (CDFW, 2025) meet this definition and are typically provided management consideration through the CEQA process, although they are not legally protected under the ESA or CESA. Additionally, the CDFW also includes some animal species that are not assigned any of the other status designations on their "Special Animals" list; however, these species have no legal or protection status and are not analyzed in this document.

Plants listed as rare under the California Native Plant Protection Act ("CNPPA") or included in the California Native Plant Society ("CNPS") California Rare Plant Ranks ("CRPR") 1A, 1B, 2A, and 2B are also treated as special-status species as they meet the definitions of Sections 2062 and 2067 of the CESA and in accordance with CEQA Guidelines Section 15380. In general, the CDFW requires that plant species on CRPR 1A (Plants presumed extirpated in California and Either Rare or Extinct Elsewhere), CRPR 1B (Plants rare, threatened, or endangered in California and elsewhere), CRPR 2A (Plants presumed extirpated in California, but more common elsewhere); and CRPR 2B (Plants rare, threatened, or endangered in California, but more common elsewhere) of the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2023) be fully considered during the preparation of environmental documents relating to CEQA. CNPS' CRPR 4 species (plants of limited distribution) may, but generally do not, meet the definitions of Sections 2062 and 2067 of the CESA, and are not typically considered in environmental documents relating to CEQA, and are therefore not analyzed in this document.

Raptors (e.g., eagles, hawks, and owls) and their nests are protected in California under the federal Migratory Bird Treaty Act ("MBTA"), the California Migratory Bird Treaty Act ("CMBTA"), and California Fish and Game Code Section 3503.5. Section 3503.5 states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird except otherwise provided by this code or any regulation adopted pursuant thereto." Additionally, fully protected species under the Fish and Game Code Section 3511 (birds), Section 4700 (mammals), Section 5515 (fish), and Section 5050 (reptiles and amphibians) are also considered special-status animal species. Species with no formal special-status designation but thought by experts to be rare or in serious decline may also be considered special-status animal species in some cases, depending on project-specific analysis and relevant, localized conservation needs or precedence.

#### *Sensitive Habitats*

Sensitive habitats include riparian corridors, wetlands, habitats for legally protected species, areas of high biological diversity, areas supporting rare or special-status wildlife habitat, and unusual or regionally restricted vegetation types. Vegetation types considered sensitive include those listed on CDFW's *California Natural Communities List* (i.e., those habitats that are rare or endangered in the borders of California) (CDFW, 2023), those that are occupied by species listed under the ESA or are critical habitat in accordance with the ESA, and those that are defined as Environmentally Sensitive

Habitat Areas under the California Coastal Act. Specific habitats may also be identified as sensitive in city or county general plans or ordinances. Sensitive habitats are regulated under federal regulations (such as the CWA and Executive Order 11990 – Protection of Wetlands), state regulations (such as CEQA and the CDFW Streambed Alteration Program), or local ordinances or policies (such as city or county tree ordinances and general plan policies).

**Environmental Setting**

The Proposed Project area is located primarily within the existing roadway ROWs of agricultural roads, Salinas Road, Hilltop Road, Jensen Road, Bluff Road, Springfield Road, Struve Road, Trafton Road, and SR 1. In addition, a portion of the project is located at northeast corner an existing agricultural field. The Proposed Project area has been previously disturbed in connection with the existing roads and agricultural uses.

***Survey Methodology***

DD&A Senior Environmental Scientist Jami Colley and Assistant Environmental Scientist Rikki Lougee conducted surveys of the Evaluation Area on May 20 and 23, and June 18, 2024, and June 11, 2025. DD&A reviewed available reference materials prior to conducting the field survey. The surveys included the Transmission and Distribution Pipeline alignments, the Transmission Booster Pump Station, the Bluff-Jensen Tank and Booster Pump Station, and the potential additional staging area along Hilltop Road. Except where within the transmission and distribution alignments, private properties (i.e., the Service Connections areas and the potential staging areas along Salinas Road) were not accessed for the evaluation. Instead, DD&A conducted visual assessments of these areas from public roads. In addition, DD&A reviewed existing aerial imagery and available reference materials. A biological resources report was developed and provides a basis for recommendations to minimize and avoid impacts, see **Appendix C**.

DD&A's field surveys included a focused botanical survey, a reconnaissance-level survey to identify any special-status wildlife species or suitable habitat for these species, characterize vegetation types, and identify any sensitive habitats present within or adjacent the Evaluation Area, and an assessment of potentially jurisdictional wetlands and other waters. Survey methods included walking the Evaluation Area using aerial maps and GPS to map biological resources. Botanical surveys followed the applicable guidelines outlined in the U.S. Fish and Wildlife Service ("USFWS") *Guidelines for Conducting and Reporting Botanical Inventories for Federally listed, Proposed and Candidate Plants* (USFWS, 2000), the California Department of Fish and Wildlife ("CDFW") *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, 2021), and the California Native Plant Society ("CNPS") *Botanical Survey Guidelines* (CNPS, 2001). Data collected during the surveys were used to assess the environmental conditions of the Evaluation Area and its surroundings, evaluate environmental constraints at the site and within the local vicinity, and provide a basis for recommendations to minimize and avoid impacts.

The primary literature and data sources reviewed to determine the occurrence or potential for occurrence of special-status species within and adjacent to the Evaluation Area include:

- Current agency status information from the USFWS and CDFW for species listed, proposed for listing, or candidates for listing as Threatened or Endangered under the federal Endangered Species Act ("ESA") or the California Endangered Species Act ("CESA"), and those considered CDFW "species of special concern," including;

- CDFW's California Natural Diversity Database ("CNDDB") occurrence reports for the Moss Landing quadrangle and the six surrounding quadrangles (Marina, Salinas, Prunedale, Watsonville East, Watsonville West, and Soquel) (CDFW, 2025b);
- The USFWS's Information for Planning and Consulting ("IPaC") Resource List (USFWS, 2025a)
- The CNPS Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2025).

In addition, the following literature and data sources were reviewed to determine the occurrence or potential for occurrence of other sensitive natural resources within the survey area:

- California Natural Communities List (CDFW, 2025b);
- The U.S. Department of Agriculture ("USDA") Natural Resources Conservation Service ("NRCS") Web Soil Survey (USDA-NRCS, 2025);
- The National Wetlands Inventory Wetlands Mapper (USFWS, 2025b); and
- The National Hydrography Dataset (U.S. Geologic Survey ["USGS"], 2023).

DD&A generated a list based on the above resources of special-status plant and wildlife species known or with the potential to occur in or adjacent to the Proposed Project area.

***Vegetation Types***

The survey results include mapping and quantification of the acreage of four (4) vegetation types within the Evaluation Area. Additionally, the majority of the Evaluation Area is developed (e.g. paved roads and residential landscaping), denuded dirt roads (private and agricultural), or active agriculture. A brief description of each of these areas can be found below. A generalized nomenclature for habitat types is used within this document for ease of reference; however, each habitat type description also lists the *Manual of California Vegetation* (Sawyer et.al., 2009) vegetation type(s) in order to provide a crosswalk to the *Natural Communities List* (CDFW, 2025b). **Table 11** identifies the acreage of each habitat type within the Proposed Project components.

***Developed:*** The majority of the Evaluation Area is developed, including paved roads, agricultural and residential structures, the parking lot area at the Moss Landing Middle School that will be used for staging, and other regularly disturbed areas within the Service Area parcels. Areas of landscaping may be present within the developed areas; however, due to the limited vegetation and frequent disturbance these areas are considered to have little biological value. However, some common wildlife species that do well in urbanized areas may be found foraging within the developed areas, including American crow (*Corvus brachyrhynchos*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), California scrub jay (*Aphelocoma californica*), European starling (*Sturnus vulgaris*), western fence lizard (*Sceloporus occidentalis*), and rock dove (*Columba livia*).

- *A Manual of California Vegetation classification(s):* N/A
- *California Natural Communities List:* N/A

**Table 11.**
**Acreage of Habitat Types within Project Components**

| Component | Developed | Ruderal | Denuded Agricultural & Dirt Roads | Active Agriculture | Non-Native Grassland | Oak Wood-land | Riparian | Total |
|---|---|---|---|---|---|---|---|---|
| **Transmission Main Pipeline** | 17.7 ac | 2.5 ac | 1.7 ac | 0.5 ac | | | 0.1 ac | ***22.5 ac*** |
| **SMWS Wells Site, Transmission Booster Pump Station** | 0.9 ac | 0.02ac | | | | 0.1 ac | | ***1.0 ac*** |
| **SMWS Tank Site Improvements** | 0.1 ac | | | | | | | ***0.1 ac*** |
| **PWS Well #1 Site, Iron & Manganese Treatment System** | 0.3 ac | 0.1 ac | | | | | | ***0.4 ac*** |
| **PWS Tank Rehabilitation** | 1.5 ac | 0.8 ac | | | | | | ***2.3 ac*** |
| **Bluff-Jensen Expansion Distribution Pipeline** | 5.6 ac | 2.9 ac | 1.3 ac | | | | | ***9.8 ac*** |
| **Bluff-Jensen Tank & Booster Pump Station** | | 0.04 ac | 0.03 ac | 0.4 ac | | | | ***0.5 ac*** |
| **Bluff-Jensen Service Areas** | 8.3 ac | 2.0 ac | 3.1 ac | 2.3 ac | | | (Present Adjacent) | ***14.4 ac*** |
| **Springfield Distribution Pipeline** | 1.1 ac | 0.6 ac | 0.3 ac | | | | (Present Adjacent) | ***2.0 ac*** |
| **Springfield Service Areas** | 0.5 ac | 0.5 ac | | | | | | ***1.0 ac*** |
| **Potential Additional Staging Areas** | 0.7 ac | | 0.2 ac | | 2.4 ac | | | ***3.4 ac*** |
| ***Total*** | ***36.7 ac*** | ***9.5 ac*** | ***6.6 ac*** | ***1.9 ac*** | ***2.4 ac*** | ***0.1 ac*** | ***0.1 ac*** | ***57.3 ac*** |

***Ruderal:*** Ruderal areas are those areas which have been subject to historic and ongoing disturbance by human activities and are devoid of vegetation or dominated by non-native and/or invasive weed species. Within the Evaluation Area, ruderal areas mainly consist of disturbed roadside vegetation, iceplant mats, and non-native trees. These areas are dominated by non-native weedy species and are regularly maintained. Roadsides within the Evaluation Area are mostly sparsely vegetated; however, dominant species include non-native species such as cheeseweed (*Malva parviflora*), bur clover (*Medicago polymorpha*), wild radish (*Raphanus sativus*), cutleaf plantain (*Plantago coronopus*), ripgut brome (*Bromus diandrus*), black mustard (*Brassica nigra*), prostrate knotweed (*Polygonum aviculare*), common groundsel (*Senecio vulgaris*), rattail sixweeks grass (*Festuca myuros*), and hare barley (*Hordeum murinum* ssp. *leporinum*). These species very likely also dominate the private residential yard areas where grass or landscaping plants aren't present. Areas mapped as iceplant mats consist almost purely of hottentot fig (*Carpobrotus edulis*), while areas of non-native trees contain species such as Monterey cypress (*Cupressus macrocarpa* [planted]), and eucalyptus (*Eucalyptus globulus*). Ruderal areas provide only low-quality habitat for plants and wildlife. Similar to developed areas, ruderal habitat have little biological value, but common wildlife species that do well in urbanized areas may be found foraging in these areas and various avian species may nest within trees.

- *A Manual of California Vegetation classification(s)*: None
- *California Natural Communities List*: Not sensitive

***Denuded Agricultural and Dirt Roads:*** Denuded areas within the Evaluation Area consist of private and agricultural dirt roads. These areas are highly compacted, maintained free of vegetation, and are frequently used. In addition, a portion of the proposed staging area at the Moss Landing Middle School is denuded due to its current use as a staging area for another project. Similar to developed areas, these areas have little biological value, but common wildlife species that do well in urbanized areas may be found foraging along denuded dirt roads.

- *A Manual of California Vegetation classification(s)*: N/A
- *California Natural Communities List*: N/A

***Active Agriculture:*** Active agricultural areas within the Evaluation Area are regularly disturbed and maintained, and provide only low-quality habitat for wildlife. However, many avian species may be found foraging, small mammal species may nest and forage, and various types of wildlife may disperse or migrate through agricultural areas. These areas may also be left fallow at certain time of year, which may provide additional habitat for wildlife species.

- *A Manual of California Vegetation classification(s)*: N/A
- *California Natural Communities List*: N/A

***Non-native Annual Grassland:*** Non-native annual grasslands are those areas which have been disturbed by human activities and by non-native grasses and forbs. Non-native annual grassland is present within the staging area along Hilltop Road. Dominant species present include ripgut brome, slender oat, and soft chess (*B. hordeaceus*). Common wildlife species that may occur within the non-native annual grasslands include California ground squirrel, house sparrow (*Passer domesticus*), scrub jay, northern Pacific rattlesnake (*Crotalus oreganus oreganus*), Pacific gophersnake (*Pituophis catenifer catenifer*), western fence lizard, northern alligator lizard (*Elgaria coerulea*), and rock dove.

- *A Manual of California Vegetation classification(s)*: Wild Oats Grassland (*Avena barbata*, *fatua* Semi-natural Herbaceous Alliance) and Annual Brome Grasslands (*Bromus diandrus, hordeaceus – Brachypodium distachyon* Semi-Natural Herbaceous Stands)

- *California Natural Communities List*: Not sensitive

***Oak Woodland:*** Oak woodland habitat within the Evaluation Area is present at the Transmission Booster Pump Station site. This area is a small remnant patch of habitat surrounded by development and is highly disturbed by the adjacent uses, including the existing SMWS wells. Within this area coast live oak (*Quercus agrifolia*) dominates the canopy while the understory is mostly maintained and contains leaf litter with only a few weedy herbaceous species. California blackberry (*Rubus ursinus*), poison hemlock (*Conium maculatum*), fennel (*Foeniculum vulgare*), and jubata grass (*Cortaderia jubata*) are also found along the margins in less-maintained areas.

Oaks provide nesting sites for many avian species and cover for a variety of mammals, including mourning dove, northern flicker (*Colaptes auratus*), American kestrel (*Falco sparverius*), California ground squirrel, and California pocket mouse (*Chaetodipus californicus*). Acorns provide an important food source for acorn woodpecker (*Melanerpes formicivorus*), California scrub jay, California quail (*Callipepla californica*), and black-tailed deer (*Odocoileus hemionus columbianus*).

- *A Manual of California Vegetation classification(s)*: Coast live oak woodland (*Quercus agrifolia*/*Rubus spp./Pteridium aquilinum* association)
- *California Natural Communities List*: Not Sensitive

***Riparian:*** Riparian habitats are those plant communities supporting woody vegetation found along rivers, creeks, streams, canyon bottom drainages, and seeps. They can range from a dense thicket of shrubs to a closed canopy of large mature trees. The Project has been designed to avoid riparian habitat to the greatest extent feasible; however, a small riparian area is present within the Transmission Main component easement, just north of the intersection of SR 1 and Springfield Road. Riparian habitat in this area is associated with a drainage that conveys water under SR 1, daylights in the Evaluation Area, then runs southwest towards Springfield Road and ultimately McClusky Slough. Riparian habitat is also present immediately adjacent to the Evaluation Area in several locations, including areas surrounding Struve Pond and Werner Lake (see sensitive habitat discussion below).

Riparian areas provide habitat for many wildlife species, particularly birds and herpetofauna. Common species that may be found within the riparian habitat in the site includes Sierran treefrog (*Pseudacris sierra*), Monterey ensatina (*Ensatina eschscholtzii eschscholtzii*), and red-winged blackbird (*Agelaius phoeniceus*).

- *A Manual of California Vegetation classification(s)*: Arroyo willow thickets (*Salix lasiolepis* shrubland alliance)
- *California Natural Communities List*: Sensitive

***Sensitive Habitats***

***Riparian:*** The Arroyo willow floristic alliance Arroyo willow thickets [*Salix lasiolepis* shrubland alliance]) occurring within the riparian habitat is identified as sensitive on CDFW's *California Natural Communities List* (CDFW, 2025b). This sensitive habitat type is also present immediately adjacent to the Evaluation area in several locations (**Appendix C**, Figure 3). Adjacent to the Transmission Main component, riparian habitat is present 1) north and south of Werner Road; 2) west of Hilltop Road near the agricultural facilities; and 3) east and west of Elkhorn Road, associated with Werner Lake. Adjacent to the Bluff-Jensen Expansion Area, riparian habitat is present adjacent to the terminus of the distribution pipeline along Trafton Road and a nearby service area. Adjacent to the Springfield Expansion Area, riparian habitat is present east of Struve Road, associated with Struve Pond. Additionally, riparian areas are

subject to the jurisdiction of CDFW under Section 1602 of the Fish and Game Code and are considered ESHA under the CCA.

***Wetlands and Other Waters:*** Roadside ditches are present within and adjacent to the Evaluation Area; however, none of these ditches have a continuous surface connection to any traditional navigable waters (TNWs), and therefore these ditches do not meet the definition of waters of the U.S. as identified in CFR 328.3(a)(8). Most of these ditches are regularly maintained agricultural ditches that are devoid of vegetation or support only sparse ruderal vegetation or only upland plant species. Only one ditch, located on the west side of Struve Road across from the Bennett Slough riparian habitat (**Appendix C**, Figure 3), was observed to support wetland vegetation. The ditch is dominated by watercress (*Nasturtium officinale*), smartweed (*Persicaria* sp.), and cattail (*Typha* sp.). Other wetland species observed include duckweed (*Lemna* sp.), rabbitfoot grass, and brass buttons (*Cotula coronopifolia*), and some weedy species are also present including wild radish, poison hemlock, willowherb (*Polygonum* sp.), and cheeseweed. Shallow surface water was also observed within this ditch in May 2024. The source of hydrology appears to be agricultural runoff based on the presence of several pipes and culverts from adjacent agricultural fields.

Data to delineate wetlands within the ditch was not collected as set forth in *The Field Guide for Wetland Delineation: 1987 Corps of Engineers Manual* (Wetland Training Institute, 1995) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (ACOE, 2008). However, the boundaries of the wetland vegetation and observed hydrology were mapped and the Proposed Project has been designed to avoid impacts to the potentially jurisdictional wetland. This area would be considered ESHA under the CCA and may be considered a state wetland by the RWQCB.

***Special-Status Species***

Published occurrence data within the Proposed Project areas and surrounding USGS quadrangles were evaluated to compile a table of special-status species known to occur in the vicinity of the Evaluation Area (**Appendix C,** Appendix D). Each of these species was evaluated for their likelihood to occur within and immediately adjacent to the Evaluation Area. The special-status species that are known to or have been determined to have a moderate to high potential to occur within or immediately adjacent the Evaluation Area are discussed below. All other species within the table were determined to be "not present" based on focused surveys and/or lack of specialized habitat features, are assumed "unlikely to occur" due to lack of suitable habitat, or have a low potential to occur for the species-specific reason presented in **Appendix C,** Appendix D. **Table 12** below provides a summary of the components where each species discussed below may occur.

***Pallid Bat:*** The pallid bat (*Antrozous pallidus*) is CDFW species of special concern, and year-round resident in California. Pallid bat occurs in a wide variety of habitats including grasslands, shrublands, arid desert areas, oak savanna, coastal forested areas, and coniferous forests of the mountain regions of California and forests ranging from sea level up through species seems to prefer rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Pallid bats make use of similar structures for night roosting and will use more open sites such as eaves, awnings, and open areas under bridges for feeding roosts. Copulation occurs in the fall, October through December. Females store the sperm and ovulation occurs in the following spring. Parturition timing is determined by local climate and embryonic development usually takes about 9 weeks with birth occurring in May or June. Maternity colonies range from 20 to 200 individual adult bats, while males roost in much smaller groupings (Hermanson and O'Shea, 1983).

**Table 12.**
**Special-Status Species Potential within Project Components**

| Component | Pallid Bat | Monterey Dusky-Footed Woodrat | Monterey Shrew | Tricolored Blackbird | Western Burrowing Owl | White-tailed Kite | Loggerhead Shrike | Nesting Birds | California Tiger Sala-mander | California Red-legged Frog | Santa Cruz Long-toed Salamander | Coast Range Newt | Crotchs Bumble Bee | Western Bumble Bee |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Transmission Main Pipeline** | X | X | X | A[1] | A | X | X | X | X | X | X | A | X | X |
| **SMWS Well Site, Transmission Booster Pump Station** | X | X | | | | X | X | X | | X | | X | X | X |
| **SMWS Tank Site Improvements** | | | | | | | | A | | | | | | |
| **PWS Well #1 Site, Fe & Mn Treatment System** | | | | | | | | X | | | | | | |
| **PWS Tank Rehabilitation** | | | | | | | | X | | | | | | |
| **Bluff-Jensen Expansion Distribution Pipeline** | X | A | | | | X | X | X | X | X | A | | X | X |
| **Bluff-Jensen Tank & Booster Pump Station** | | | | | | | | | X | X | | | X | X |
| **Bluff-Jensen Service Areas** | X | A | A | | | X | X | X | X | X | A | | X | X |
| **Springfield Distribution Pipeline** | A | A | A | A | | A | A | A | X | X | A | A | X | X |
| **Springfield Service Areas** | X | | | | | X | X | X | X | X | | | X | X |
| **Potential Additional Staging Areas** | A | | | | X | A | A | A | X | X | | | X | X |

[1] A = Present or Potentially Present Adjacent to Component

The SR 1 overpass within the Transmission Main component and trees within adjacent to the components identified in **Table 12** may provide suitable night roost habitat for pallid bats; pallid bats may also use eaves and awnings of buildings within and adjacent to the Evaluation Area for night roosts. This species may also forage within the Evaluation Area. The CNDDB reports one occurrence of the pallid bat within the quadrangles reviewed; this is a non-specific occurrence from 1949 located approximately 15.5 miles northwest of the SR 1/Salinas Road overpass; however, an additional occurrence is present approximately 10.5 miles east in the San Juan Bautista quadrangle.

***Monterey Dusky-Footed Woodrat:*** The Monterey dusky-footed woodrat (*Neotoma macrotis luciana;* "MDFW") is a CDFW species of special concern. This is a subspecies of the dusky-footed woodrat *(Neotoma macrotis)*, which is common to oak woodlands throughout California. MDFW are frequently found in forest habitats with moderate canopy cover and a moderate to dense understory; however, they may also be found in chaparral communities. Relatively large nests are constructed of grass, leaves, sticks, and feathers and are built in protected spots, such as rocky outcrops or dense brambles of blackberry and/or poison oak. Typical food sources for this species include leaves, flowers, nuts, berries, and truffles. MDFW may be a significant food source for small- to medium-sized predators. Populations of this species may be limited by the availability of nest material. Within suitable habitat, nests are often found in close proximity to each other.

Suitable habitat for this species is present within the riparian habitat within the Transmission Main component and the oak woodland habitat within the Transmission Booster Pump Station site. Additional suitable habitat is present adjacent to these components, as well as the Bluff-Jensen Service Areas, and Springfield Distribution Pipeline. The CNDDB reports one occurrence of the MDFW within the quadrangles reviewed, located approximately 18 miles south of the Springfield Distribution Pipeline and Service Areas; however, this species is known to occur throughout the County.

***Monterey Shrew:*** The Monterey shrew (*Sorex ornatus salarius*) is a CDFW species of special concern. In general, this shrew is common in the southern two-thirds of California west of the Sierra Nevada, from Mendocino to Butte counties, south to the Mexican border. It occupies a variety of mostly moist or riparian woodland habitats and also occurs within chaparral, grassland, and emergent wetland habitats where there is thick duff or downed logs. The breeding season is long; while most pregnancies occur in March and April, they may occur from February through October. The litter size is about six and females may have more than one litter per year. Most individuals do not live to breed a second year. Foraging occurs under logs rocks and leaf litter, and prey items are mostly insects and some other invertebrates.

Suitable habitat for this species is present in the riparian area and adjacent to within the Transmission Main component and the riparian and emergent wetland habitats adjacent to the Springfield Distribution Pipeline and Bluff/Jensen Service Areas. The CNDDB reports two occurrences of the Monterey shrew within the quadrangles reviewed, the nearest of which is located approximately 1.5 miles south of the suitable habitat within the Transmission Main component.

***Tricolored Blackbird:*** The tricolored blackbird (*Agelaius tricolor*) is a state threatened species. This species is common locally throughout the Central Valley and in coastal districts from Sonoma County south. These birds are summer residents in northeastern California, occurring regularly only at Tule Lake, but found as far south as Honey Lake in some years. In winter, this species becomes more widespread along the central coast and San Francisco Bay area (Grinnell and Miller, 1944). Tricolored blackbirds breed near fresh water, preferably in emergent wetlands with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, and tall herbs, which also serve as their preferred nesting habitat. Nests are built of mud and plant materials over or near fresh water, especially in emergent wetlands. This species is highly colonial and the minimum nesting colony size is about 50 pairs

(Grinnell and Miller 1944). Drinking water is probably required, at least when seeds and grains are the major foods.

Suitable habitat is present within the riparian habitat adjacent to the Transmission Main component near Werner Lake and the pond on Hilltop Road, and adjacent to the Springfield Distribution pipeline near Struve Pond. The riparian habitat within the Transmission Main component may provide only marginal habitat for this species. The CNDDB reports nine occurrences of the tricolored blackbird within the quadrangles reviewed, the nearest of which are located at Werner Lake approximately 300 feet east of the Transmission Main component and at Elkhorn Slough, two miles northeast of the riparian habitat adjacent to the Springfield Distribution pipeline. Several eBird occurrences are reported in the vicinity; however, these occurrences are concentrated around the sloughs.

***Western Burrowing Owl:*** The western burrowing owl (*Athene cunicularia;* "WBO") is a CDFW species of special concern. Burrowing owls are a year round resident of open, dry grassland and desert habitats, and grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. In general, WBO frequent open grasslands and shrublands with perches and burrows. WBO use rodent burrows (often California ground squirrel) for roosting and nesting cover. These burrows are lined with excrement, pellets, debris, grass, and feathers (occasionally are unlined). Pipes, culverts, and nest boxes may be substituted for burrows in areas where burrows are not available. Breeding occurs from March through August, with the peak occurring in April and May. This species is semicolonial and is probably the most gregarious owl in North America. WBO eat mostly insects, but small mammals, reptiles, birds, and carrion are also taken. This species usually hunts from a perch and hovers, hawks, dives, and hops after prey on the ground. Conversion of grassland to agriculture, poisoning of ground squirrels, and other forms of habitat destruction have led to the reduction in their numbers in the recent decades.

Marginal nesting habitat for this species is present in the non-native annual grassland within the potential staging areas along Hilltop Road. In addition, fallow agricultural fields (if present at the time of construction) adjacent to all pipeline components may provide suitable habitat for this species. The CNDDB reports 13 occurrences of the WBO within the quadrangles reviewed, the nearest of which is located approximately 0.8 mile southeast of the suitable habitat adjacent to the Transmission Main component. Several eBird occurrences are also reported in the vicinity; however, these occurrences are concentrated around the sloughs and are absent from the agricultural areas.

***White-Tailed Kite:*** The white-tailed kite is a CDFW fully protected species. This raptor species is a fairly common to uncommon, year-long resident in coastal and valley lowlands. This species generally utilizes herbaceous lowlands with variable tree growth and an associated high population density of voles. Nests are made of loosely piled sticks and twigs and lined with grass, straw, or rootlets. Nests are generally placed near the top of a dense oak, willow, or other tree stands (usually 6-20 meters [20-100 feet] above ground), and are often located near an open foraging area. Breeding occurs from February to October with peak activity occurring from May to August. Foraging occurs in undisturbed open grasslands, meadows, farmlands, and emergent wetlands.

Trees within and adjacent to most of the Project components (see **Table 12**) may provide suitable nesting habitat for white-tailed kite and this species may forage over all open areas of the Evaluation Area. The CNDDB reports one occurrence of the white-tailed kite within the quadrangles reviewed, the nearest of which is located approximately 2.8 miles east/southeast of the Springfield Distribution component. In addition, several eBird occurrences are reported in the vicinity, including several along Hilltop Road, Bluff Road, Trafton Road, and Struve Road.

***Loggerhead Shrike:*** The loggerhead shrike (*Lanius ludovicianus*) is a CDFW species of special concern. This species frequents open habitats with sparse shrubs and trees, suitable perches, and low or sparse

herbaceous cover. This species occurs only rarely in heavily urbanized areas, but are often found in open agricultural areas with associated fencing. Nests are built upon a stable branch in densely-foliaged shrubs or trees, usually well-concealed. Nest height averages 0.4 to 15 meters (1.3 to 50 feet) above ground. Breeding occurs from March to May, with peak activity occurring in July or August. Loggerhead shrikes mainly eat large insects, but may also take small birds, mammals, amphibians, reptiles, fish, carrion, and various invertebrates. This species frequently skewers prey on a thorn, sharp twig, wire barb, or forces it into a tree crotch as a food cache for later consumption.

Trees within and adjacent to most of the Project components (see **Table 12**) may provide suitable nesting habitat for loggerhead shrike and this species may forage over all open areas of the Evaluation Area. The CNDDB does not report any occurrences of the loggerhead shrike within the quadrangles reviewed; however, several eBird occurrences are reported in the vicinity, including along Bluff Road and south of the Moss Landing Middle School.

***Raptors and Other Protected Avian Species:*** Raptors, their nests, and other nesting birds are protected under California Fish and Game Code, the CMBTA, and the MBTA. While the life histories of these species vary, overlapping nesting and foraging similarities (approximately February through August) allow for their concurrent discussion. Most raptors are breeding residents throughout most of the wooded portions of the state. Stands of live oak, riparian deciduous, or other forest vegetation types, are used most frequently for nesting. Breeding occurs February through August, with peak activity May through July. Prey for these species includes small birds, small mammals, and some reptiles and amphibians. Many raptor species hunt in open woodland and habitat edges.

Various common raptor species, such as red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk, great horned owl (*Bubo virginianus*), American kestrel (*Falco sparverius*), great horned owl (*Bubo virginianus*), western screech owl (*Megascops kennicottii*), and turkey vulture (*Cathartes aura*), and other common avian species, such as tree swallow (*Tachycineta bicolor*), black phoebe (*Sayornis nigricans*), Anna's hummingbird (*Calypte anna*), and California flicker have a potential to nest within any of the trees present within and adjacent to the Evaluation Area. Other common avian species, such as red-winged blackbird (*Agelaius phoeniceus*), song sparrow (*Melospiza melodia*), and California quail may also nest within the ruderal and non-native annual grassland habitats.

***California Tiger Salamander:*** The California tiger salamander (*Ambystoma californiense*; "CTS") is a federal and state threatened species. The CTS is a large, stocky salamander most commonly found in annual grassland habitat, but also occurring in the grassy understory of valley-foothill hardwood and chaparral habitats, and uncommonly along stream courses in valley-foothill riparian habitats (USFWS, 2004). Adults spend most of their lives underground, typically in burrows of ground squirrels and other animals (USFWS, 2004). CTS have been eliminated from an estimated 55 percent of its documented historic breeding sites. Currently, about 150 known populations of California tiger salamanders remain. CTS persist in disjunct remnant vernal pool complexes in Sonoma County and Santa Barbara County, in vernal pool complexes and isolated stockponds scattered along a narrow strip of rangeland on the fringes of the Central Valley from southern Colusa County south to northern Kern County, and in sag ponds and human maintained stockponds in the coast ranges from the San Francisco Bay Area south to the Temblor Range.

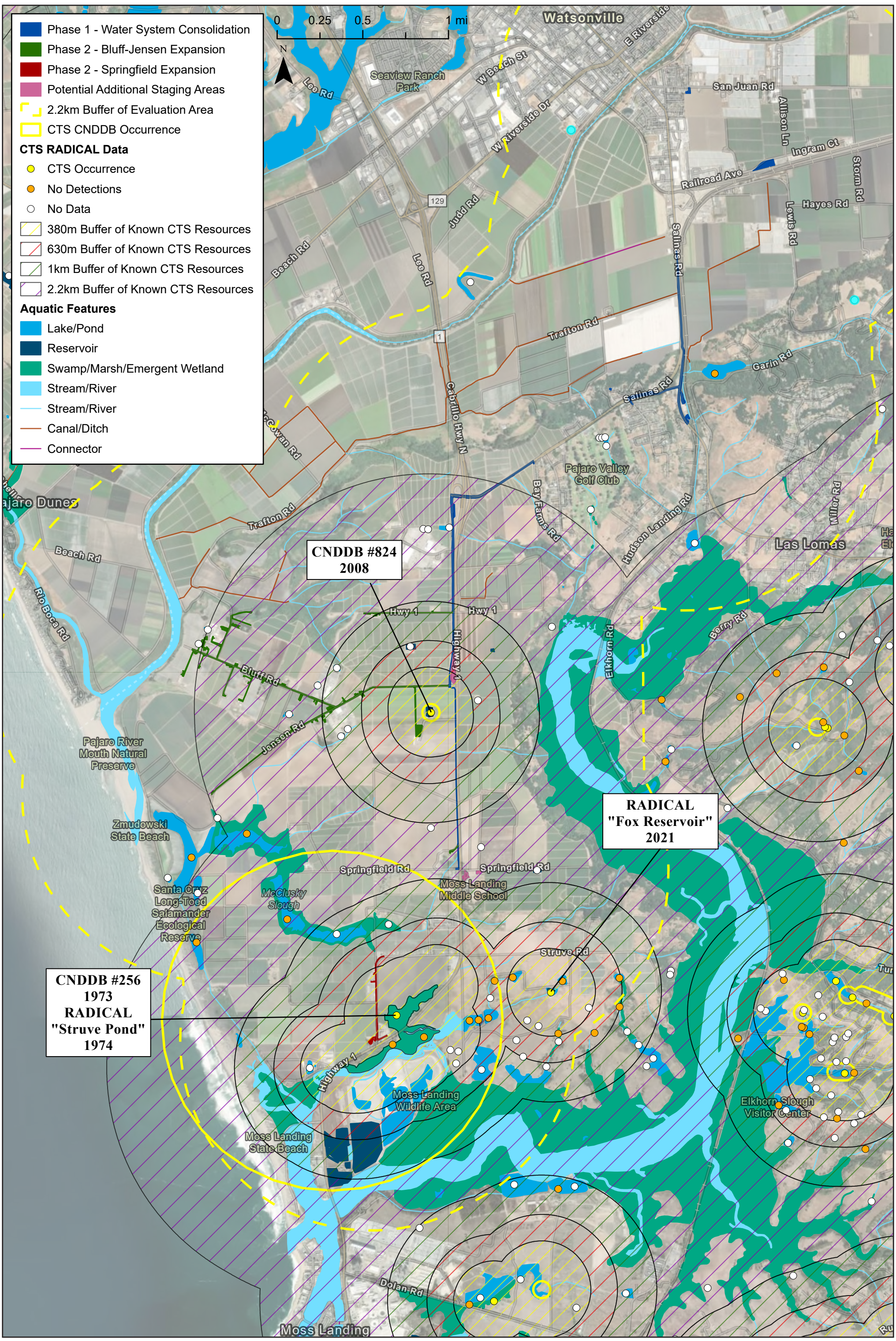
Above-ground migratory and breeding activity may occur under suitable environmental conditions from mid-October through May. Adults may travel long distances between upland and breeding sites; adults have been found two kilometers (1.24 miles) from breeding sites (USFWS, 2004). Breeding occurs from November to February, following relatively warm rains (Stebbins, 2003). CTS breed and lays eggs primarily in vernal pools and other temporary rainwater ponds. Permanent human-made ponds are sometimes utilized if predatory fishes are absent; streams are rarely used for reproduction. Eggs are laid

singly or in clumps on both submerged and emergent vegetation and on submerged debris in shallow water (Stebbins, 1972; Jennings and Hayes, 1994). Males typically spend six (6) to eight (8) weeks at breeding ponds, while females typically spend only one (1) to two (2) weeks (Loredo et al., 1996). Eggs hatch within 10-14 days (USFWS, 2004) and a minimum of 10 weeks is required to complete development through metamorphosis (Jennings and Hayes, 1994), although the larval stage may last up to six (6) months and some larvae in Contra Costa and Alameda Counties may remain in their breeding sites over the summer (USFWS, 2004).

No suitable breeding habitat is present within the Evaluation Area; however, the majority of the Evaluation Area is within the dispersal distance of known or potential CTS breeding resources (**Figure 8**). Suitable upland habitat for CTS is present within all undeveloped areas of the components identified in **Table 12**, particularly the non-native annual grassland and ruderal areas where small mammal burrows are present. Marginal habitat may also be present in active agricultural areas.

The CNDDB reports 37 occurrences of CTS within the seven quadrangles evaluated, including one occurrences from 1973 that overlaps the Springfield Expansion Area (**Figure 8**). The CNDDB occurrence notes that CTS were observed adjacent to Elkhorn Slough, 1.25 miles north of Moss Landing; based on this description, it is possible that the occurrence is within Bennett Slough/Struve Pond, which is located north of, but connected to Elkhorn Slough. The Bennett Slough/Struve Pond area is located approximately 230 feet (70 meters) east of the Springfield Distribution Pipeline along Struve Road. A specific occurrence is located approximately 330 feet (100 meters) from one of the Bluff-Jensen Service Areas, located south of Jensen Road (**Figure 4**), where adult CTS were observed in 2008 near a pond that may provide suitable breeding habitat; however, no breeding was documented for this occurrence. Access to the pond was not permitted by the property owner and conditions could not be evaluated from the Evaluation Area as it is completely surrounded by silt fencing, which may preclude current use of the pond by CTS. Data provided by the Rare Amphibian Detection in California ("RADICAL") team, which is made up of scientists from Elkhorn Slough Reserve, UC Santa Cruz, Santa Lucia Reserve, Service, and Washington State University, also reports an occurrence of CTS within Fox Reservoir in 2021, located approximately 1.6 km east of the Springfield Distribution Pipeline, 1.4 km southeast of the terminus of the Transmission Main at the intersection of SR 1 and Springfield Road, and 1.2 km south of the potential staging area at the Moss Landing Middle School.

***California Red-Legged Frog:*** The CRLF is listed as a federally Threatened and is also a CDFW species of special concern (USFWS, 1996). The CRLF is the largest native frog in California (44-131 mm snout-vent length) and was historically widely distributed in the central and southern portions of the state (Jennings and Hayes, 1994). Adults generally inhabit aquatic habitats with riparian vegetation, overhanging banks, or plunge pools for cover, especially during the breeding season (Jennings and Hayes, 1988). They may take refuge in small mammal burrows, leaf litter, or other moist areas during periods of inactivity or to avoid desiccation (Rathbun et al., 1993; Jennings and Hayes, 1994). Radiotelemetry data indicates that adults engage in straight-line breeding season movements irrespective of riparian corridors or topography and they may move up to two miles between non-breeding and breeding sites (Bulger et al., 2003). During the non-breeding season, a wider variety of aquatic habitats are used including small pools in coastal streams, springs, water traps, and other ephemeral water bodies (USFWS, 1996). CRLF may also move up to one mile (1.6 km) from aquatic and riparian habitats into surrounding upland habitats for shelter or to forage. These upland habitats include various vegetation types, such as grassland, woodland, forest, and wetlands that contain structural features such as boulders, rocks, organic debris (e.g., downed trees and logs), small mammal burrows, and moist leaf litter (USFWS, 2010).




| | | | |
|---|---|---|---|
| Title: CTS Occurrence Map | Date 8/29/2025<br>Scale N/A<br>Project 2023.47 | Monterey \| San Jose<br>**Denise Duffy and Associates, Inc.**<br>Environmental Consultants Resource Planners<br>947 Cass Street, Suite 5<br>Monterey, CA 93940<br>(831) 373-4341 | Figure 8 |

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This species requires still or slow-moving water during the breeding season where it can deposit large egg masses, which are most often attached to submergent or emergent vegetation. Breeding typically occurs between December and April depending on annual environmental conditions and locality. Eggs require six (6) to 12 days to hatch and metamorphosis generally occurs after 3.5 to seven (7) months, although larvae are also capable of over-wintering. Following metamorphosis, generally between July and September, juveniles are 25-35 mm in size. Juvenile CRLF appear to have different habitat needs than adults. Jennings and Hayes (1988) recorded juvenile frogs mostly from sites with shallow water and limited shoreline or emergent vegetation. Additionally, it was important that there be small one-meter breaks in the vegetation or clearings in the dense riparian cover to allow juveniles to sun themselves and forage, but to also have close escape cover from predators. Jennings and Hayes also noted that tadpoles have different habitat needs and that in addition to vegetation cover, tadpoles use mud. It is speculated that CRLF larvae are algae grazers, however, foraging larval ecology remains unknown (Jennings, et al., 1993).

It has been shown that occurrences of CRLF are negatively correlated with presence of non-native bullfrogs (Moyle, 1973; Jennings and Hayes, 1986 and 1988), although both species are able to persist at certain locations, particularly in the coastal zone. It is estimated that CRLF has disappeared from approximately 75 percent of its former range and has been nearly extirpated from the Sierra Nevada, Central Valley, and much of southern California (USFWS, 1996).

The CNDDB includes 53 occurrences of CRLF within the quadrangles evaluated, including a non-specific occurrence that includes the entire Moss Landing quadrangle (the quadrangle that most of the Project is located within) (**Figure 9**) but notes that the habitat is marsh surrounding the nearby McClusky Slough. Several additional CNDDB occurrences are located within one mile of the Evaluation Area, including occurrences at the adjacent Struve Pond, Bennet Slough, the pond adjacent to Hilltop Road, and Werner Lake. Data provided by the RADICAL team also reports occurrences at these locations (**Figure 9**).

No suitable breeding habitat is present within the Evaluation Area; however the entire Evaluation Area is within one mile of known or potential breeding or non-breeding aquatic habitat, and undeveloped portions of the Evaluation Area may provide suitable upland and dispersal habitat (see **Table 12**), especially within the riparian habitat within and adjacent to the Transmission Main and adjacent to the Springfield Distribution Pipeline, and less-disturbed areas of the oak woodland and ruderal habitat within and surrounding the Transmission Booster Pump Station component. CRLF could also use the emergent wetland habitat adjacent to Struve Road within the Springfield Distribution Pipeline component for non-breeding aquatic habitat when sufficient surface water is present.

***Santa Cruz Long-Toed Salamander:*** The Santa Cruz long-toed salamander (*Ambystoma macrodactylum;* "SCLTS) is listed as a federal and state Endangered species and is also a California fully protected species. The SCLTS is a subspecies of long-toed salamander that occurs in a small number of restricted localities in Santa Cruz and Monterey Counties. This subspecies is known to use several different plant community types for upland habitat, including riparian, willow thickets, coast live oak woodlands, dense coastal scrub, coastal chaparral, and Monterey pine forest (USFWS, 1999). Adults use upland areas immediately adjacent to their breeding site, as well as the surrounding areas up to 0.6 km; however, SCLTS has been recorded as far as 1.6 km (1.0 mi) from the nearest breeding site (Ruth and Tollestrup, 1973). For much of the year SCLTS find refuge in cool, moist places, such as small mammal burrows or under decayed wood piles, logs, or thick leaf litter. The upland habitat must also support an abundance of prey. Adult and sub-adult SCLTS eat a variety of invertebrates, including earthworms, slugs, isopods, beetles, and spiders.

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Phase 1 - Water System Consolidation
Phase 2 - Bluff-Jensen Expansion
Phase 2 - Springfield Expansion
Potential Additional Staging Areas
1mi Buffer of Evaluation Area
CRLF CNDDB Data
CRLF CNDDB Data (Quad)

**CRLF RADICAL Data**

CRLF Occurrence
No Detections
No Data

**Aquatic Features**

Lake/Pond
Reservoir
Swamp/Marsh/Emergent Wetland
Stream/River
Stream/River
Canal/Ditch
Connector

0 0.25 0.5 1 mi

N

Occ. #1285
2009

Occ. #1032
2005
RADICAL
"Werner Lake"
2006, 2016, & 2022

Occ. #1034
2000, 2010, 2011,
2013, & 2016

Occ. #942
(Prunedale Quad)
2007

Occ. #482
(Moss Landing Quad)
2001

Occ. #1472
2016-2017

RADICAL
"McClusky
Slough"
2002, 2006

Occ. #119
1994

RADICAL
"Zumdowski"
2006

RADICAL
"Struve Pond"
1974

RADICAL
"Bennett Slough"
1974

RADICAL
"House Ponds"
2004-2007, 2017, 2021-2022

Occ. #1037
2019

RADICAL
"Duck Decoy Pond"
2017

RADICAL
Redtail Canyon Ponds"
2005-2006, 2022

RADICAL
"Twin Ponds"
2004-2006, 2021-2022

RADICAL
"Spring Reservoir"
2004-2007, 2022

Lee Rd
Salinas Rd
Railroad Ave
Lewis Rd
Trafton Rd
Garin Rd
Cabrillo Hwy N
Pajaro Valley Golf Club
Bay Farms Rd
Hudson Landing Rd
Hwy 1
Highway 1
Bluff Rd
Jensen Rd
Elkhorn Rd
Berry Rd
Springfield Rd
Struve Rd
Pajaro River Mouth Natural Preserve
Zmudowski State Beach
Santa Cruz Long-Toed Salamander Ecological Reserve
McClusky Slough
Bennett Slough
Moss Landing State Beach
Elkhorn Slough Visitor Center

| | |
|---|---|
| Title: | CRLF Occurrence Map |
| Date | 8/29/2025 |
| Scale | N/A |
| Project | 2023.47 |

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Figure 9

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Adult SCLTS migrate to breeding sites at night during rain events between November and March, with peak activity between December and February. During migration, the SCLTS may be found under surface objects such as rocks or logs near the breeding site. Ideal breeding locations appear to be shallow, temporary, freshwater ponds that lack fishes and hold water at least through the spring months; however, they may also breed in permanent waterbodies, such as sloughs. Males often arrive at breeding sites before females and may stay longer. Females lay approximately 300 eggs singly on submergent aquatic vegetation in shallow water, approximately five to eight cm (2-3.2 inches) below the surface. Eggs hatch within 15-30 days and the larvae metamorphose between 90 and 145 days after hatching, depending on water temperature and food availability (Howard, 1997). Terrestrial juveniles may spend the entire first summer of life in mammal burrows or under surface objects in the immediate vicinity of the breeding pond.

The CNDDB reports 28 occurrences of SCLTS within the seven quadrangles reviewed, the nearest of which are located immediately adjacent to the Springfield Distribution pipeline, within Struve Pond/Bennett Slough; however, SCLTS may be extirpated from this resource (USFWS, 2019) (**Figure 10**). Data provided by the RADICAL team also reports occurrences at this locations.

No suitable breeding habitat is present within the Evaluation Area; however, suitable upland habitat for SCLTS is present within the riparian habitat within and adjacent to the Transmission Main component and the riparian habitat adjacent to the Springfield Distribution pipeline and Bluff-Jensen Expansion components. This species is assumed present within these areas.

***Coast Range Newt:*** The Coast Range newt (*Taricha torosa*) is a CDFW species of special concern within all portions of their range south of the Salinas River in Monterey County. This species was historically distributed in coastal drainages from the vicinity of Sherwoods (central Mendocino County) in the North Coast Ranges, south to Boulder Creek, in San Diego County. Populations in southern California appear to be highly fragmented, even historically. This species has been depleted by large-scale historical commercial exploitation coupled with the loss and degradation of stream habitats, particularly in Los Angeles, Orange, Riverside, and San Diego Counties. Breeding and egg-laying occur in intermittent streams, rivers, permanent and semi-permanent ponds, lakes and large reservoirs. Eggs are laid in small clusters on the submerged portion of emergent vegetation, on submerged vegetation, and on the underside of rocks off the bottom. In central California, breeding appears to occur in two (2) waves, the first in January or February and the second in March or April, although Coast Range newts may enter ponds as early as December. Larvae take approximately three (3) to six (6) months to reach metamorphosis.

Suitable habitat for coast range newt is present within the Transmission Booster Pump Station component. Riparian habitat adjacent to the Transmission Main component near Werner Lake and adjacent to the Springfield Distribution Pipeline component near Struve Pond may also provide suitable habitat. The CNDDB reports one occurrence of this species within the quadrangles evaluated, the nearest of which is located approximately 11 miles southeast of the Evaluation Area.

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Transmission Main
Bluff-Jensen Expansion
Springfield Expansion
Potential Additional Staging Areas
1.6 km Buffer of Evaluation Area
SCLTS CNDDB Occurrence

**SCLTS RADICAL Data**

SCLTS Occurrence
SCLTS Not Detected
No Data
0.6 km Buffer of SCLTS Occurrences
1.6 km Buffer of SCLTS Occurrences

**Aquatic Features**

Lake/Pond
Reservoir
Swamp/Marsh/Emergent Wetland
Stream/River
Stream/River
Canal/Ditch
Connector

0 1 1 Miles

N

**CNDDB #3**
**1974, 1977-1978, 1989, & 2001-2002**
**RADICAL**
**"McClusky Slough"**
**1974 & 2002**

**Riparian Habitat within Evaluation Area**

**CNDDB #2**
**1973-1974, 1977-1978, & 1989**
**RADICAL**
**"Struve Pond" & "Bennett Ditch"**
**1974**

**CNDDB #9**
**1994, 2001, & 2002**
**RADICAL**
**"Zumdowski"**
**2022**

| | |
|---|---|
| Title: | SCLTS Occurrence Map |
| Date | 8/29/2025 |
| Scale | N/A |
| Project | 2023.47 |

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Figure 10

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***Western and Crotch Bumble Bee:*** The Crotch bumble bee (*Bombus crotchii;* "CBB") was historically common in the southern two-thirds of California, but now appears to be absent from most of it, especially in the center of its historic range. The western bumble bee (*B. occidentalis;* "WBB") was formerly common from the Pacific coast to the Colorado Rocky Mountains; however, populations from central California to southern British Columbia, Canada and west of the Sierra-Cascade Ranges have declined sharply since the late 1990s. On March 16, 2016, USFWS announced that a petition to list CBB and WBB under the ESA presented substantial scientific or commercial information indicating that the petitioned action may be warranted, and identified these species as "Under Review". Additionally, on June 28, 2019, the CDFW determined that the petition to list CBB and WBB under CESA provided sufficient scientific information to indicate the petitioned action may be warranted, and identified these species as a "Candidate" for listing.

Typical habitat types for CBB and WBB include open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows where abundant floral resources are present. CBB and WBB require plants that bloom and provide adequate nectar and pollen throughout the colony's life cycle, which is from early February to late October or November, respectively. Both species are generalist foragers and has been reported to visit a wide variety of flowering plants; however, both have a very short tongue that is best suited to open flowers with short corollas. The plant families most commonly associated with CBB include Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae. Select food genera for WBB include, but is not limited to, *Ceanothus, Geranium, Grindelia, Lupinus, Monardella, Rubus, Solidago, Melilotus, Cirsium, Trifolium, Centaurea, Chrysothamnus, Penstemon,* and *Eriogonum*.

Like most other species of bumble bees, CBB and WBB typically nest underground. Most reports of nests are from underground cavities, such as old squirrel or other animal nests, and in open west-southwest slopes bordered by trees. A few nests have also been reported from above-ground locations such as in logs among railroad ties or under buildings. Very little is known about overwintering sites utilized by most bumble bees, including CBB and WBB; however, they generally overwinter in soft, disturbed soil or under leaf litter of other debris. One report identified that hibernacula was two inches deep "in a steep west slope of the mound of earth" and a closely related European species, has been reported to hibernate beneath trees. Additionally, a recent study at the former Fort Ord on the Monterey Peninsula that studied potential overwintering habitat found individuals of two species (*B. melanopygus* and *B. vosnesenskii*) hibernating in the duff below Monterey cypress trees, while none were observed in areas where the groundcover consisted of pine needle duff, grassy meadow, or the invasive iceplant (*Carpobrotus* sp.).

The CNDDB reports 11 occurrences of WBB and two occurrences of CBB within the quadrangles reviewed. The nearest occurrences of CBB are located approximately 2.0 miles northeast of the Evaluation Area at Sunset State Beach from 1994 and approximately 3.5 miles northeast of the Evaluation Area at Watsonville Airport in 1995. WBB were also documented at these locations. The nearest CNDDB occurrence of WBB is a non-specific occurrence from 1959 centered on the City of Watsonville; however, most occurrences of WBB are located in the Watsonville vicinity from the 1990s. No occurrences of CBB or WBB are reported within the quadrangles reviewed in the Bumble Bee Watch database, a community science project facilitated by the Xerces Society to track and conserve North America's bumble bees; however, the nearest occurrence of CBB was reported in the City of Santa Cruz near Pleasure Point in 2025 (this occurrence is also documented in the CNDDB). The next nearest CBB occurrence in the Bumble Bee Watch database is located approximately 22 miles northeast of the Evaluation Area at Coyote Lake. All occurrence of WBB in the CNDDB and the Bumble Bee Watch database from the last 20 years are located 150 miles (241 km) or more north of the Proposed Project,

and *A Petition to the State of California Fish and Game Commission to List the Crotch Bumble Bee, Franklins Bumble Bee, Suckley Cuckoo Bumble Bee, and Western Bumble bee as Endangered under the California Endangered Species Act* notes that the currently known range of WBB is "largely confined to high elevation sites and a small handful of records on the northern California coast."

The Evaluation Area is located within the currently known range for CBB, but not WBB. However, the majority of the Evaluation Area is located within the historic range of both species. Suitable habitat for these species is present within all Project components (see **Table 12**) where flowering resources are present, including the ruderal, riparian, and non-native annual grassland habitats. Marginal habitat may also be present in the active agriculture and oak woodland areas.

***Special-Status Plant Species***

DD&A conducted focused rare plant surveys in May and June 2024 and June 2025 during the appropriate blooming period to identify species with the potential to occur (**Appendix C,** Appendix D). No special-status plant species were identified within the Evaluation Area.

**Regulatory Environment**

***Federal***

***Federal Endangered Species Act*:** Provisions of the ESA of 1973 (16 USC 1532 et seq., as amended) protect federally Listed Threatened or Endangered species and their habitats from unlawful take. Listed species include those for which proposed and final rules have been published in the Federal Register. The ESA is administered by the USFWS or National Marine Fisheries Service ("NMFS"). In general, NMFS is responsible for the protection of ESA-Listed marine species and anadromous fish, whereas other listed species are under USFWS jurisdiction.

Section 9 of ESA prohibits the take of any fish or wildlife species listed under ESA as endangered or threatened. Take, as defined by ESA, is "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Harm is defined as "any act that kills or injures the fish or wildlife…including significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." In addition, Section 9 prohibits removing, digging up, and maliciously damaging or destroying federally listed plants on sites under federal jurisdiction. Section 9 does not prohibit take of federally listed plants on sites not under federal jurisdiction. If there is the potential for incidental take of a federally listed fish or wildlife species, take of listed species can be authorized through either the Section 7 consultation process for federal actions or a Section 10 incidental take permit ("ITP") process for non-federal actions. Federal agency actions include activities that are on federal land, conducted by a federal agency, funded by a federal agency, or authorized by a federal agency (including issuance of federal permits).

***Clean Water Act*.** The U.S. Army Corps of Engineers ("ACOE") and EPA regulate discharge of dredged and fill material into "Waters of the United States" ("waters of the U.S.") under Section 404 of the Clean Water Act ("CWA"). Waters of the U.S. are defined broadly as waters susceptible to use in commerce (including waters subject to tides, interstate waters, and interstate wetlands) and other waters (such as interstate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds) (33 CFR 328.3). Potential wetland areas are identified as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils conditions."

Under Section 401 of the CWA, any applicant receiving a Section 404 permit from the ACOE must also obtain a Section 401 Water Quality Certification from the Regional Water Quality Control Board ("RWQCB"). A Section 401 Water Quality Certification is issued when a project is demonstrated to comply with state water quality standards and other aquatic resource protection requirements.

***Migratory Bird Treaty Act*.** The MBTA of 1918 prohibits killing, possessing, or trading migratory birds except in accordance with regulation prescribed by the Secretary of the Interior. Most actions that result in permanent or temporary possession of a protected species constitute violations of the MBTA. The USFWS is responsible for overseeing compliance with the MBTA and implements Conventions (treaties) between the United States and four countries—Canada, Mexico, Japan, and Russia—for the protection of migratory birds. The USFWS maintains a list of migratory bird species that are protected under the MBTA.

***Magnuson-Stevens Fishery Conservation and Management Act*.** The Magnuson-Stevens Fishery Conservation and Management Act was adopted in 1976 and is the primary federal regulation for marine fisheries. The act was intended to extend control of U.S. waters to a distance of 200 nautical miles from shore, prevent overfishing, and to conserve and manage fishery resources via the following 10 national standards:

1. Prevent overfishing while achieving optimum yield.
2. Be based upon the best scientific information available.
3. Manage individual stocks as a unit throughout their range, to the extent practicable; interrelated stocks shall be managed as a unit or in close coordination.
4. Not discriminate between residents of different states; any allocation of privileges must be fair and equitable.
5. Where practicable, promote efficiency, except that no such measure shall have economic allocation as its sole purpose.
6. Take into account and allow for variations among and contingencies in fisheries, fishery resources, and catches.
7. Minimize costs and avoid duplications, where practicable.
8. Take into account the importance of fishery resources to fishing communities to provide for the sustained participation of, and minimize adverse impacts to, such communities (consistent with conservation requirements).
9. Minimize bycatch or mortality from bycatch.
10. Promote safety of human life at sea.

The Proposed Project does not include any offshore work and the provisions of the Magnuson-Stevens Fishery Conservation and Management Act would not apply.

***Wild and Scenic Rivers Act*.** The Wild and Scenic Rivers Act was adopted in 1968 and established protections for more than 220 rivers across 13,400 miles or waterways. The Wild and Scenic Rivers Act is enforced and managed by a combination of the USFWS, Bureau of Land Management, the National Park Service, and the U.S. Forest Service. The Proposed Project does not include any work within rivers protected under the Wild and Scenic Rivers Act and the provisions of the act would not apply.

***State***

***California Endangered Species Act*:** CESA was enacted in 1984. The CCR (Title 14, §670.5) lists animal species considered Endangered or Threatened by the State. Section 2090 of CESA requires State agencies to comply with endangered species protection and recovery and to promote conservation of these species. Section 2080 of the Fish and Game Code prohibits "take" of any species that the commission determines to be an Endangered species or a Threatened species. “Take” is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” A Section 2081 ITP from the CDFW may be obtained to authorize “take” of any State Listed species.

***California Native Plant Protection Act*:** The CNPPA of 1977 directed the CDFW to carry out the legislature’s intent to “preserve, protect and enhance rare and Endangered plants in the State.” The CNPPA prohibits importing rare and Endangered plants into California, taking rare and Endangered plants, and selling rare and Endangered plants. The CESA and CNPPA authorized the Fish and Game Commission to designate endangered, threatened, and rare species and to regulate the taking of these species (§2050-2098, Fish and Game Code). Plants listed as rare under the CNPPA are not protected under CESA; however, these plants may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research.

***California Fish and Game Code*:** Section 3503 of the Fish and Game Code states that it is “unlawful to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Section 3503.5 prohibits the killing, possession, or destruction of any birds in the orders Falconiformes or Strigiformes (birds-of-prey). Section 3511 prohibits take or possession of fully protected birds. Section 3513 (i.e., the CMBTA) prohibits the take or possession of any migratory nongame birds designated under the federal MBTA. Section 3800 prohibits take of nongame birds.

The classification of fully protected was the state's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish (§5515), mammals (§4700), amphibians and reptiles (§5050), and birds (§3511). Most fully protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations. Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

The CDFW also maintains a list of wildlife “species of special concern.” Although these species have no legal status, the CDFW recommends considering these species during analysis of project impacts to protect declining populations and avoid the need to list them as endangered in the future.

CDFW has jurisdiction over the conservation, protection, and management of wildlife, native plants, and habitat necessary to maintain biologically sustainable populations (§1802). As a trustee agency under CEQA Guidelines Section 15386, CDFW provides expertise in reviewing and commenting on environmental documents and provides protocols regarding potential negative impacts to those resources held in trust for the people of California.

Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement

will be required. CDFW's jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider.

***Porter-Cologne Water Quality Control Act*:** The Porter-Cologne Water Quality Control Act of 1969 ("Porter-Cologne") is California's statutory authority for the protection of water quality and applies to surface waters, wetlands, and groundwater, and to both point and nonpoint sources. Under the Porter-Cologne, the SWRCB has the ultimate authority over State water rights and water quality policy. However, Porter-Cologne also establishes nine RWQCBs to oversee water quality on a day-to-day basis at the local/regional level. The Project Study Area is located within Region 3 – Central Coast RWQCB. Porter-Cologne incorporates many provisions of the federal CWA, such as delegation to the SWRCB and RWQCBs of the National Pollutant Discharge Elimination System ("NPDES") permitting program.

Under Porter-Cologne, the state must adopt water quality policies, plans, and objectives that protect the state's waters for the use and enjoyment of the people. Regional authority for planning, permitting, and enforcement is delegate to the nine RWQCBs. The regional boards are required to formulate and adopt water quality control plans for all areas in the region and establish water quality objectives in the plans. The Porter-Cologne sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update water quality control plans (basin plans). The act also requires waste dischargers to notify the RWQCBs of such activities through filing of Reports of Waste Discharge ("RWD") and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements ("WDRs"), NPDES permits, Section 401 water quality certifications, or other approvals. The RWQCBs also have authority to issue waivers to RWD requirements and WDRs for broad categories of "low threat" discharge activities that have minimal potential for adverse water quality effects, when implemented according to prescribed terms and conditions.

The term "Waters of the State" is defined by Porter-Cologne as "any surface water or groundwater, including saline waters, within the boundaries of the state." The RWQCB protects all waters in its regulatory scope but has special responsibility for wetlands, riparian areas, and headwaters, including isolated wetlands, and waters that many not be regulated by the ACOE under Section 404 of the CWA. Waters of the State are regulated by RWQCB under the State Water Quality Certification Program, which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne.

***California Coastal Act*:** The CCC was established by voter initiative in 1972 (Proposition 20) and later made permanent by the California State Legislature through adoption of the CCA of 1976. The CCC, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone. California's coastal zone generally extends 1,000 yards inland from the mean high tide line. In significant coastal estuarine habitat and recreational areas, it extends inland to the first major ridgeline or five miles from the mean high tide line, whichever is less. In developed urban areas, the boundary is generally less than 1,000 yards. Development activities, which are broadly defined by the CCA to include (among others) construction of buildings, divisions of land, and activities that change the intensity of use of land or public access to coastal waters, generally require a Coastal Development Permit ("CDP") from either the CCC or the local government if a Local Coastal Program ("LCP") has been certified. After certification of an LCP, coastal development permit authority is delegated to the appropriate local government, but the CCC retains original permit jurisdiction over certain specified lands (such as tidelands and public trust lands). The Commission also has appellate authority over development approved by local governments in specified geographic areas as well as certain other developments. A CDP is required in addition to any other permit required from resource agencies.

The CCC or the local government may designate areas of rare or unique biological value, such as wetland and riparian habitat and habitats for special-status species, as ESHA. Section 30107.5 of the CCA defines an "environmentally sensitive area" as any area in which plant or animal life or their habitat are either

rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. Development is restricted within the coastal zone and prohibited within designated ESHA, unless the development is coastal dependent and does not have a significant effect on the resources. Section 30240 of the CCA states that "environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas." This section also states that "development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas."

The majority of the Evaluation Area is located within the boundaries of the North Monterey County Land Use Plan ("LUP"). Additional information is provided in the Local Regulations section below.

***Local***

***2010 Monterey County General Plan*:** The following goals and policies of the 2010 Monterey County General Plan would apply to inland portions of the Proposed Project:

**Goal OS-4:** Protect and Conserve the Quality of Coastal, Marine, and River Environments, as Applied in Areas Not in the Coastal Zone.

**Policy OS-4.1:** Federal and State listed native marine and freshwater species, or subspecies of a bird, mammal, fish, amphibian, reptile, or plant shall be protected. Species designated in Area Plans shall also be protected.

**Policy OS-4.2*:*** Direct and indirect discharges of harmful substances into marine waters, rivers or streams shall not exceed state or federal standards.

**Policy OS-4.3*:*** Estuaries, salt and freshwater marshes, tide pools, wetlands, sloughs, river and stream mouth areas, plus all waterways that drain and have impact on State designated Areas of Special Biological Significance ("ASBS") shall be protected, maintained, and preserved in accordance with state and federal water quality regulations.

**Goal OS-5:** Conserve Listed Species, Critical Habitat, Habitat and Species Protected in Area Plans; Avoid, Minimize and Mitigate Significant Impacts to Biological Resources.

**Policy OS-5.3*:*** Development shall be carefully planned to provide for the conservation and maintenance of critical habitat.

**Policy OS-5.4*:*** Development shall avoid, minimize, and mitigate impacts to listed species and critical habitat to the extent feasible. Measures may include but are not limited to:

a. clustering lots for development to avoid critical habitat areas,

b. dedications of permanent conservation easements; or

c. other appropriate means.

If development may affect listed species, consultation with United States Fish and Wildlife Service ("USFWS") and California Department of Fish and Game ("CDFG") may be required and impacts may be mitigated by expanding the resource elsewhere on-site or in close proximity off-site. Final mitigation requirements would be determined as required by law.

**Policy OS-5.6:** Native and native compatible species, especially drought resistant species, shall be utilized in fulfilling landscaping requirements.

**Policy OS-5.12:** The California Department of Fish and Game shall be consulted, and appropriate measures shall be taken to protect Areas of Special Biological Significance (ASBS).

**Policy OS-5.16:** A biological study shall be required for any development project requiring a discretionary permit and having the potential to 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, or substantially reduce the number or restrict the range of an endangered, rare, or threatened species.

An ordinance establishing minimum standards for a biological study and biological surveys shall be enacted. A biological study shall include a field reconnaissance performed at the appropriate time of year. Based on the results of the biological study, biological surveys may be necessary to identify, describe, and delineate the habitats or species that are potentially impacted. Feasible measures to reduce significant impacts to a less than significant level shall be adopted as conditions of approval.

**Policy OS-5.18:** Prior to disturbing any federal or state jurisdictional areas, all applicable federal and state permitting requirements shall be met, including all mitigation measures for development of jurisdictional areas and associated riparian habitats.

**Policy OS-5.24:** The County shall require discretionary projects to retain movement corridors of adequate size and habitat quality to allow for continued wildlife use based on the needs of the species occupying the habitat. The County shall require that expansion of its roadways and public infrastructure projects provide movement opportunities for terrestrial wildlife and ensure that existing stream channels and riparian corridors continue to provide for wildlife movement and access.

**Policy OS-5.25:** Occupied nests of statutorily protected migratory birds and raptors shall not be disturbed during the breeding season (generally February 1 to September 15). The county shall

A. Consult, or require the developer to consult, with a qualified biologist prior to any site preparation or construction work in order to:

(1) determine whether work is proposed during nesting season for migratory birds or raptors,

(2) determine whether site vegetation is suitable to nesting migratory birds or raptors,

(3) identify any regulatory requirements for setbacks or other avoidance measures for migratory birds and raptors which could nest on the site, and

(4) establish project-specific requirements for setbacks, lock-out periods, or other methods of avoidance of disruption of nesting birds.

B. Require the development to follow the recommendations of the biologist. This measure may be implemented in one of two ways:

(1) preconstruction surveys may be conducted to identify active nests and, if found, adequate buffers shall be provided to avoid active nest disruption until after the young have fledged; or

(2) vegetation removal may be conducted during the non-breeding season (generally September 16 to January 31); however, removal of vegetation along

waterways shall require approval of all appropriate local, state, and federal agencies.

This policy shall not apply in the case of an emergency fire event requiring tree removal. This policy shall apply for tree removal that addresses fire safety planning, since removal can be scheduled to reduce impacts to migratory birds and raptors.

***North County Area Plan*:** None of the policies provided in the North County Area Plan are applicable to the inland portions of the Proposed Project.

***1982 Monterey County General Plan*:** The following policies of the 1982 Monterey County General Plan would apply to coastal portions of the Proposed Project:

**Policy 7.2.1:** Landowners and developers shall be encouraged to preserve the integrity of existing terrain and natural vegetation in visually sensitive areas such as hillsides and ridges.

**Policy 7.2.2:** Native and native compatible species, especially drought resistant species, shall be utilized to the extent possible in fulfilling landscaping requirements imposed as conditions of discretionary permits.

**Policy 11.1.1:** The California Native Plant Society shall be consulted, and appropriate measures shall be taken to protect rare and endangered plant species and their habitats.

**Policy 11.1.2:** The California Department of Fish and Game shall be consulted, and appropriate measures shall be taken to protect Areas of Special Biological Importance.

***North County LUP*:** The following biological resources policies provided in the North County LUP are applicable to the coastal portions of the Proposed Project:

**2.3.2.1:** With the exception of resource dependent uses, all development, including vegetation removal, excavation, grading, filling, and the construction of roads and structures, shall be prohibited in the following environmentally sensitive habitat areas: riparian corridors, wetlands, dunes, sites of known rare and endangered species of plants and animals, rookeries, major roosting and haul-out sites, and other wildlife breeding or nursery areas identified as environmentally sensitive. Resource dependent uses, including nature education and research hunting, fishing and aquaculture, where allowed by the plan, shall be allowed within environmentally sensitive habitats only if such uses will not cause significant disruption of habitat values.

**2.3.2.2:** Land uses adjacent to locations of environmentally sensitive habitats shall be compatible with the long-term maintenance of the resource. New land uses shall be considered compatible only where they incorporate all site planning and design features needed to prevent habitat impacts, upon habitat values and where they do not establish a precedent for continued land development which, on a cumulative basis, could degrade the resource.

**2.3.2.3:** New development adjacent to locations of environmentally sensitive habitats shall be compatible with the long-term maintenance of the resource. New subdivisions shall be approved only where significant impacts to environmentally sensitive habitats from development of proposed parcels will not occur.

**2.3.2.5:** Where private or public development is proposed in documented or potential locations of environmentally sensitive habitats - particularly those habitats identified in General Policy No. 1 - field surveys by qualified individuals or agencies shall be required in order

to determine precise locations and to recommend mitigating measures to ensure protection of any sensitive habitat present. The required survey shall document that the proposed development complies with all applicable environmentally sensitive habitat policies.

**2.3.2.8:** Where development is permitted in or adjacent to environmentally sensitive habitat areas (consistent with all other resource protection policies), the County, through the development review process, shall restrict the removal of indigenous vegetation and land disturbance (grading, excavation, paving, etc.) to the minimum amount necessary for structural improvements.

**2.3.2.9:** The County shall require the use of non-invasive plant species in proposed landscaping and should encourage the use of appropriate native species or species that are compatible with native plants.

**2.3.2.10:** Construction activities, industrial, and public and commercial recreational uses which would affect rare and endangered birds shall be regulated to protect habitats of rare, endangered, and threatened birds during breeding and nesting seasons. Regulations may include restriction of access, noise abatement, and restriction of hours of operation of public or private facilities. Regulations shall not prohibit emergency operation of service and public utility equipment.

**2.3.3.B.1:** Riparian plant communities shall be protected by establishing setback requirements consisting of 150 feet on each side of the bank of perennial streams, and 50 feet on each side of the bank of intermittent streams, or the extent of riparian vegetation, whichever is greater. In all cases, the setback must be sufficient to prevent significant degradation of the habitat area. The setback requirement may be modified if it can be conclusively demonstrated by a qualified biologist that a narrower corridor is sufficient or a wider corridor is necessary to protect existing riparian vegetation from the impacts of adjacent use.

**2.3.3.B.2:** All development, including dredging, filling, and grading within stream corridors, shall be limited to activities necessary for flood control purposes, water supply projects, improvement of fish and wildlife habitat, or laying of pipelines when no alternative route is feasible, and continued and future use of utility lines and appurtenant facilities. These activities shall be carried out in such a manner as to minimize impacts from increased runoff, sedimentation, biochemical degradation, or thermal pollution. When such activities require removal of riparian plant species, re-vegetation with native plants shall be required.

**2.3.3.B.4:** A setback of 100 feet from the landward edge of vegetation of all coastal wetlands shall be provided and maintained in open space use. No permanent structures except for those necessary for resource-dependent use which cannot be located elsewhere shall be constructed in the setback area. Prior to approval of all proposed structures in the setback area, it must be demonstrated that the development does not significantly disrupt the habitat resource.

**2.3.3.B.5:** All wetland areas of the North County Coastal Zone shall be protected and preserved for their plant and wildlife values, including but not limited to McClusky Slough, Pajaro River, Salinas River, Salinas River Lagoon, Elkhorn Slough, Bennett Slough, and Moro Cojo Slough. The County's existing Non Point-source Pollution Program shall be implemented.

**2.3.3.B.6:** Dredging or other major construction activities shall be conducted so as to avoid breeding seasons and other critical phases in the life cycles of commercial species of fish and shellfish and other rare, endangered, and threatened indigenous species.

**2.3.3.B.8:** Oil and other toxic substances shall not be allowed to enter or drain into the estuarine system. Oil spill and toxic substance discharge contingency plans shall be developed by the appropriate agencies of Monterey County to coordinate emergency procedures for clean-up operations of all foreseeable conditions. New development shall be permitted adjacent to estuarine areas only where such development does not increase the hazard of oil spill or toxic discharge into the estuaries.

**2.3.3.C.1:** Wildlife management considerations should be included in the evaluation of development proposals, particularly land division proposals. Large, and where feasible, contiguous areas or corridors of native vegetation should be retained in order to meet the various needs of those wildlife species requiring large areas of undisturbed habitat.

**2.3.3.C.2:** Critical wildlife habitat areas (refer to General Policy 2) shall be protected and an adequate distance based on a site-by-site analysis between such habitat and disturbed areas (e.g., building sites and roads) shall be maintained.

***Monterey County Code.*** Section 16.16.050 (K) of the Monterey County Code identifies that the following standards of construction are required for areas in 200 feet of a river or in 50 feet of a watercourse:

- A setback of two hundred (200) feet from the top of the bank of a river and fifty (50) feet from the top of the bank of a watercourse will be established where encroachment will be prohibited unless it can be proven to the satisfaction of the Monterey County Water Resources Agency that:
    1. The proposed development will not significantly reduce the capacity of existing rivers or watercourses or otherwise adversely affect any other properties by increasing stream velocities or depths, or diverting the flow; and
    2. The proposed new development will be safe from flow related erosion and will not cause flow related erosion hazards or otherwise aggravate flow related erosion hazards.

Section 20.66.020 of the Monterey County Code requires:

- Any development within 100 feet of environmentally sensitive habitat requires the preparation of a biological report.
- Development is allowable if mitigation is provided that mitigates adverse impacts.
- Development on parcels containing or within one hundred (100) feet of environmentally sensitive habitats shall be permitted only if they will not have a significant adverse impact on the habitat's long-term maintenance, either on a development or cumulative basis. Development shall only be approved where conditions of approval are available which will mitigate adverse impacts to and allow for the long-term maintenance of the habitat, as determined through the biological survey.

The County of Monterey Zoning Ordinance (Title 20) refers readers to Part 2 (North County) of the Monterey County Coastal Implementation Plan for areas inside the Coastal Zone.

The County of Monterey Zoning Ordinance (Title 21) includes development requirements for areas outside the Coastal Zone. Title 21 requires the preparation of a biological resources report for developments within or within 100 feet of an Environmentally Sensitive Habitat. Title 21 requires that

the biological resources report includes a biological survey identifying the surveyed property, a description of survey methodology, identification of habitat types, potential impacts from development, and identification of mitigation measures.

***North Monterey County Land Use Plan and Coastal Implementation Plan.*** The development and resource policies of the North Monterey County LUP guide landowners in assuring that development is compatible with protection of the area. The LUP identifies the land use categories of the Evaluation Area as Agricultural Preservation, Agricultural Conservation, Residential-Rural Density, and Wetlands and Coastal Strand. The portions of the Evaluation Area within the road rights-of-way are not given a land use designation. The North Monterey County LUP calls for the protection and preservation of known ESHA. The LUP identifies that "with the exception of resource dependent uses, all development, including vegetation removal, excavation, grading, filling, and the construction of roads and structures, shall be prohibited in the following [ESHA]: riparian corridors, wetlands, dunes, sites of known rare and endangered species of plants and animals, rookeries, major roosting and haul-out sites, and other wildlife breeding or nursery areas identified as [ESHA]." In addition "land uses adjacent to locations of [EHSA] shall be compatible with the long-term maintenance of the resource." Specific ESHA identified on the North County LCP Environmentally Sensitive Areas Map in the vicinity of the Evaluation Area include coastal strand, coastal wetlands, Santa Cruz long-toed salamander habitat, Pajaro River Riparian Woodland, and the following Natural Areas: Bennett Slough, McClusky Slough, Pajaro River Mouth, and Zmudowski State Beach. Although not specifically identified as ESHA, the LUP also provides policies for protection of oak woodland habitat.

The Monterey County Coastal Implementation Plan ("CIP") Part 2 establishes regulation, standards, and procedures to fully implement the policies of the North County LUP, including development standards for the protection, maintenance, and enhancement and restoration of North County ESHA.

***Habitat Conservation Plans or NCCP.*** There are no adopted Habitat Conservation Plans ("HCP") or Natural Community Conservation Plans ("NCCP") associated with the Evaluation Area.

| **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 Game or U.S. Fish and Wildlife Service? | ☐ | ■ | ☐ | ☐ |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | ☐ | ■ | ☐ | ☐ |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☐ | ■ |

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | ☐ | ☐ | ■ | ☐ |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ■ | ☐ | ☐ |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ■ | ☐ |

**Impact Discussion**

*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 Game or U.S. Fish and Wildlife Service?*

The Proposed Project could 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 CDFW or USFWS. DD&A did not observe any special-status plant species during focused surveys in 2024 or 2025 and no special-status plant species are expected to occur within the Service Areas where surveys were not conducted based on the species-specific reasons presented in **Appendix C**. Therefore, the Proposed Project will have **no impact** on special-status plants.

DD&A identified that the Proposed Project area includes suitable habitat for several special-status wildlife species are known or have the potential to occur within or adjacent to most of the Evaluation Area and be impacted by the Proposed Project. In addition, nesting birds have the potential to occur within or adjacent to all Project components except the Bluff/Jensen Tank and Booster Pump Station, and may be impacted by the Proposed Project. Potential impacts to each species are discussed below. In addition to species-specific measures provided below, **implementation of Mitigation Measures BIO-1 through BIO-6** are applicable to all special-status species **to avoid or reduce impacts to a less-than-significant level**.

**Mitigation Measure BIO-1:** A qualified biologist shall conduct an Employee Education Program for the construction crew prior to any construction activities. The qualified biologist will meet with the construction crew at the onset of construction at the Project site to educate the construction crew on the following: 1) the appropriate access route(s) in and out of the construction area and review Project boundaries; 2) how a biological monitor will examine the area and agree upon a method which will ensure the safety of the monitor during such activities, 3) the identification of special-status species that may be present; 4) the specific mitigation measures that will be incorporated into the construction effort; 5) the general provisions and protections afforded; and 6) the proper

procedures if a special-status species is encountered within the Project site to avoid impacts. Additional training events shall be performed by a qualified biologist as new personnel join the Project construction team. All construction personnel shall participate in a training event by a qualified biologist prior to performing any construction activities on the Project.

**Mitigation Measure BIO-2:** The following BMPs shall be implemented to avoid and reduce impacts to special-status wildlife species and their habitats:

- To prevent inadvertent entrapment of special-status wildlife during Project construction, all excavated, steep-walled holes (greater than 2:1 slope) or trenches more than two feet deep will be covered at the close of each working day with plywood or similar materials. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. For holes and trenches that are infeasible to cover, the sidewalls may be a slope greater than 2:1, or ramps may be placed to allow animals to escape.
- Only tightly woven fiber netting or similar material may be used for erosion control at the Project site. Coconut coir matting is an acceptable erosion control material. No plastic mono-filament matting will be used for erosion control, as this material may ensnare wildlife, including special-status amphibians.
- Because dusk and dawn are often the times when special-status wildlife are most actively foraging and dispersing, all construction activities shall cease one half hour before sunset and should not begin prior to one half hour after sunrise in work areas located within 300 feet of riparian, wetland, or pond habitats. In other areas, night work shall only be conducted when necessary, and lighting shall be of the lowest illumination necessary for human safety, shielded, and selectively placed to be directed downward and at the active construction area and away from natural habitat areas.
- All trash that may attract predators shall be properly contained, removed from the construction site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.
- No construction equipment shall be stored or serviced outside of designated staging areas.
- No pets or firearms shall be allowed on the Project site during construction.
- The qualified biologist and a construction monitor shall complete a daily log summarizing activities and environmental compliance throughout the duration of the Project.
- Stationary equipment such as motors, generators, and welders located shall be stored overnight at a designated staging area greater than 100 feet from wetland or riparian habitat when feasible. If it is necessary to store stationary equipment overnight within 100 feet of wetland or riparian habitats, the equipment shall be positioned over drip pans of sufficient volume to prevent any leaks of toxic materials into sensitive habitats.
- Any hazardous or toxic materials deleterious to life that could be washed into adjacent wetland or riparian habitats shall be contained in watertight containers.
- Refueling of equipment shall take place within designated staging areas or at least 100 feet from wetland or riparian habitats and drainages.
- All construction debris and associated materials stored in staging area shall be removed from the work site upon completion of the Project.

**Mitigation Measure BIO-3:** Prior to construction temporary construction fencing or flagging shall be placed to keep construction vehicles and personnel from impacting special-status wildlife habitat (e.g., nesting birds or MDFW nests), riparian and wetland habitat, and other special-status species habitat and vegetation (including trees) outside of work limits. A biological monitor shall supervise the installation and removal, and shall monitor at least once per week until construction is complete to ensure the protective exclusionary fencing remains intact.

**Mitigation Measure BIO-4:** A qualified biologist shall survey the work area and immediately adjacent areas 48 hours before and the morning of the onset of vegetation removal and/or ground-disturbing activities for the presence of special-status wildlife species. If non-listed special-status species are identified within the Project site, a qualified biologist shall relocate the animal to an area that offers suitable habitat at least 100 feet from the work area. If a federal or state-listed species (i.e., CTS, CRLF, or SCLTS) is observed and take authorization has been acquired, relocation measures, as defined in applicable permits shall be followed (see **Mitigation Measure BIO-12** below). If any life stage of a federal or state-listed species observed and take authorization has not been acquired, vegetation removal, grading and/or construction activities shall not commence until USFWS and/or CDFW are consulted, and appropriate actions are taken to allow Project activities to begin.

**Mitigation Measure BIO-5:** During vegetation removal and ground disturbing activities a qualified biologist shall survey appropriate areas of the construction site daily before the onset of work activities for the presence of special-status wildlife species. The qualified biologist shall remain on site until all initial ground disturbing activities are completed. If a non-listed special-status wildlife species is identified within the Project site, a qualified biologist shall relocate the animal to an area that offers suitable habitat at least 100 feet from the work area. If any federal or state-listed species (i.e., CTS, CRLF, or SCLTS) is observed and take authorization has been acquired, relocation measures as defined in applicable permits shall be followed (see **Mitigation Measure BIO-12** below). If a federal or state-listed species is found and these individuals are likely to be killed or injured by work activities and take authorization has not been acquired, work shall stop and USFWS and/or CDFW shall be contacted. Work activities shall not resume until USFWS and/or CDFW is consulted and appropriate actions are taken to allow Project activities to continue.

**Mitigation Measure BIO-6:** After vegetation removal and initial ground disturbing activities are complete, or earlier if determined appropriate by the qualified biologist, the qualified biologist shall designate a construction monitor (a member of the construction crew) to oversee on-site compliance with all avoidance and minimization measures. The qualified biologist shall ensure that this construction monitor receives sufficient training in the identification of all special-status species with the potential to occur. Thereafter the qualified biologist shall monitor the site at least weekly for the duration of construction to ensure compliance with all protective measures. The construction monitor and the qualified biologist shall be authorized to stop work if the avoidance and/or minimization measures are not being followed. If work is stopped due to the presence of a federal or state-listed species and take authorization has not been acquired, USFWS and/or CDFW shall be notified, and activities will not resume until USFWS and/or CDFW are consulted and appropriate actions are taken to allow Project activities to continue.

***Pallid Bat.*** Trees and the eves and awnings of buildings within and adjacent to several components (see **Table 11**) and the SR 1 overpass within the Transmission Main component may provide suitable day and night roost habitat for pallid bats. This species may forage over all open areas of the Evaluation Area. No suitable maternity roost is present. Tree removal and limbing is proposed at the Transmission Booster Pump Station component; however, it is possible that the final Project design may require additional

tree removal and/or limbing. This activity could result in disturbance or mortality of individual pallid bats, if present at the time of tree removal/limbing. Although the transmission pipeline would be installed in an existing utility crossing within the SR 1 bridge that is covered and direct impacts to pallid bats are unlikely, construction may result in disturbance of pallid bats if roosting in other parts of the bridge. This would be considered a significant impact under CEQA. **Implementation of Mitigation Measures BIO-1, BIO- 2, and BIO-5 through BIO-8 would reduce potential impacts to a less-than-significant level.**

**Mitigation Measure BIO-7:** To avoid and reduce impacts to pallid bats, the Project proponent will retain a qualified bat specialist or wildlife biologist to conduct a site survey to characterize bat utilization of the SR 1 overpass (techniques utilized to be determined by the biologist) prior to any construction on or immediately adjacent to the overpass. Based on the results of this initial survey, one or more of the following will occur:

- If it is determined that pallid bats are not present at the site, no additional mitigation is required.
- If it is determined that pallid bats are utilizing the site and may be impacted by the Proposed Project, pre-construction surveys will be conducted no more than 30 days prior to construction on or in the vicinity of the overpass. If, according to the bat specialist, no pallid bats or pallid bat signs are observed in the course of the pre-construction surveys, construction may proceed. If pallid bats and/or bat signs are observed during the pre-construction surveys, the biologist will determine if disturbance would jeopardize the roost (i.e., foraging or night).
- If pallid bats are roosting, construction may proceed after the bats have been safely excluded from the roost. Exclusion techniques shall be determined by the biologist and depend on the roost type; the biologist shall prepare a mitigation plan to be approved by CDFW.

**Mitigation Measure BIO-8:** To the extent practical any limbing/tree removal operations should occur between September 15 and November 1 to avoid impacts to pallid bat roosts. If tree limbing/tree removal operations must occur outside the period of September 15 through November 1, a survey for bats shall be conducted by a qualified biologist.

Prior to tree trimming/removal, a qualified biologist shall conduct a pre-construction survey for pallid bats as follows:

- The biologist shall determine if bats are utilizing the site for roosting. For any trees/snags that could provide roosting space for cavity-roosting bats, potential bat roost features shall be thoroughly evaluated to determine if bats are present. Visual inspection and/or acoustic surveys shall be utilized as initial techniques.
- If roosting bats are found, the biologist shall develop and implement acceptable passive exclusion methods in coordination with or based on CDFW recommendations. If feasible, exclusion shall take place during the appropriate windows (September 15 and November 1) to avoid harming winter hibernacula. (Authorization from CDFW is required to evict winter hibernacula for bats).
- Although unlikely, if established maternity colonies are found, in coordination with CDFW, a buffer shall be established around the colony to protect pre-volant young from construction disturbances until the young can fly; or implement other measures acceptable to CDFW.

- If a tree is determined not to be an active roost site for roosting bats, it may be immediately limbed or removed as follows: If foliage roosting bats are determined to be present, limbs shall be lowered, inspected for bats by a bat biologist, and chipped immediately or moved to a dump site. Alternately, limbs may be lowered and left on the ground until the following day, when they can be chipped or moved to a dump site. No logs or tree sections shall be dropped on downed limbs or limb piles that have not been in place since the previous day.

***Monterey Dusky-Footed Woodrat.*** Suitable habitat for MDFW is present within and adjacent to the Evaluation Area in oak woodland and riparian habitats (see **Table 12**). Nests of this species were not observed within the Evaluation Area during the 2024 or 2025 field surveys; however, this species may move into the site prior to construction. Construction activities, including vegetation removal, grading, and trenching, could result in direct mortality of adults or young, if present. Additionally, MDFW could be alarmed by the presence of heavy equipment and personnel, which could result in nest abandonment, and potential mortality of young. MDFW use their middens year-round; thus, potential adverse effects on this species would not be limited to the breeding season. These are considered potentially significant impacts that can be **reduced to a less-than-significant level with implementation of Mitigation Measures BIO-1 through BIO-6 and BIO-9.**

**Mitigation Measure BIO-9:** To avoid or minimize impacts to MDFW, the Project applicant shall retain a qualified biologist to conduct pre-construction surveys within areas proposed for construction and a 25-foot buffer where suitable habitat is present and accessible. Surveys for MDFW nests shall be conducted within seven (7) days prior to construction within the Project site. All MDFW nests identified shall be flagged for avoidance. Nests that cannot be avoided shall be manually deconstructed in coordination with a qualified biologist prior to land clearing activities to allow animals to escape harm. To the extent feasible, dismantling shall occur outside of the typical breeding season. If a litter of young is found or suspected, nest material shall be replaced, and the nest shall be left alone for two (2) to three (3) weeks before a re-check to verify that young are capable of independent survival before proceeding with nest dismantling.

***Coast Range Newt and Monterey Shrew.*** Coast range newt and Monterey shrew have the potential to occur within the riparian habitat within and adjacent to the Evaluation Area (see **Table 12**). The Project would not result in loss of habitat for these species; however, construction activities, including vegetation removal and trenching, could result in mortality or disturbance of these species if present at the time of construction. These are considered significant impacts that would **be reduced to a less-than-significant level with implementation of Mitigation Measures BIO-1 through BIO-6.**

***Raptors, Special-Status Birds and Other Protected Avian Species.*** Tree removal and limbing is proposed at the Transmission Booster Pump Station component; however, it is possible that the final Project design may require additional tree removal and/or limbing. Tree removal and limbing may result in direct impacts to nesting raptors and other birds protected under California Fish and Game Code and the MBTA, including the following special-status avian species: tricolored blackbird, loggerhead shrike, and white-tailed kite. In addition, construction activities (e.g., noise, vibrations) may result in indirect impacts to these species if present within or adjacent to the Project site during construction. Impacts may include injury, mortality, and/or nest abandonment. These are potentially significant impacts that can be **reduced to less-than-significant with implementation of Mitigation Measures BIO-1, BIO-2, BIO-5, BIO-6, and BIO-10.**

**Mitigation Measure BIO-10:** To avoid impacts to nesting birds, vegetation removal, demolition activities, and construction shall commence prior to the nesting season (February 1 through September 15). If this is not possible, a pre-construction survey for nesting birds shall be conducted by a qualified biologist within 15 days prior to the commencement of these activities in all accessible

areas that may provide suitable nesting habitat within 300 feet of the Project boundary. Surveys for White-tailed kite shall include all accessible areas within 500 feet of the Project boundary. If nesting birds are identified during the pre-construction survey, an appropriate buffer, as identified by the qualified biologist, shall be imposed within which no construction activities or disturbance will take place, in accordance with the Exclusionary Fencing Plan prepared as part of **Mitigation Measure BIO-3**. A qualified biologist shall be on-site during work re-initiation in the vicinity of the nest offset to ensure that the buffer is adequate and that the nest is not stressed and/or abandoned. No work shall proceed in the vicinity of an active nest until such time as all young are fledged, or until after September 15 (when young are assumed fledged). If construction is halted for more than two weeks during the nesting season, a qualified biologist shall re-survey the Project site prior to reinitiation of construction.

***Western Burrowing Owl.*** Surveys conducted in 2024 and 2025 did not identify any active WBO burrows or burrows of sufficient size to support this species. However, WBO has the potential to nest and overwinter within the non-native grassland within the potential staging area along Hilltop Road, although the quality of the habitat is low due to the limited size of the area and the presence of highly trafficked roads on either side. Agricultural fields adjacent to the Evaluation Area that are left to fallow may also provide suitable habitat for this species. The Project would not result in loss of potential habitat for this species; however, direct mortality or nest destruction may occur as a result of construction activities such as vegetation removal or trenching. In addition, indirect impacts from construction activities (e.g., noise, vibrations) could result in injury, nest abandonment, and/or mortality of WBO, if nesting or overwintering within or directly adjacent to the Evaluation Area during construction activities. These are potentially significant impacts that can be **reduced to less-than-significant with implementation of Mitigation Measures BIO-1, BIO-2, BIO-5, BIO-6, and BIO-11.**

**Mitigation Measure BIO-11:** To avoid or minimize impacts to active WBO nests, a qualified biologist shall conduct pre-construction surveys in suitable habitat within the construction footprint and within 250 feet of the footprint no more than 14 days prior to the start of construction. If ground disturbing activities are delayed or suspended for more than 14 days after the pre-construction survey, the site shall be resurveyed again within 14 days of the initiation of construction. If no WBO are found, no further mitigation is required. If it is determined that WBO occupy the site, the Applicant shall comply with CESA and contact CDFW to solicit concurrence that the Proposed Project will not result in take or to acquire take authorization in accordance with **Mitigation Measure BIO-12**.

***Federal and State-Listed Amphibians.*** Portions of the Project are located within the known dispersal range of several known and potential breeding resources for CTS. No suitable breeding habitat is present within the Evaluation Area; however, immediately adjacent aquatic resources, including Bennett Slough and agricultural ponds, may provide suitable breeding habitat. In addition, potential upland habitat for this species is present within the non-native annual grassland and ruderal habitats where small mammal burrows occur. Marginal upland habitat may also be present within the active agriculture areas.

Installation of the pipelines and the associated access around these components would result in temporary disturbances to CTS upland habitat where non-native annual grassland and ruderal habitats and active agriculture are present. Permanent Project features would be constructed at three (3) locations: the Transmission Booster Pump Station, the Iron and Manganese Treatment Plant at the PWS Well #1 site, and the Bluff-Jensen Tank and Booster Pump Station. The Transmission Booster Pump Station and Iron and Manganese Treatment Plant locations do not contain any suitable habitat for CTS and the Bluff-Jensen Tank and Booster Pump Station may only provide very marginal upland habitat for CTS given the ongoing active agricultural activities (i.e., row crops). In addition, the existing PWS and

SMWS Tank sites do not provide suitable habitat for this species and activities within these sites are limited to upgrades to the existing facilities. As such, the Proposed Project would result in loss of a small amount of low-quality upland habitat for CTS at the Bluff-Jensen Tank and Booster Pump Station site. Indirect impacts to nearby CTS breeding resources (i.e., Struve Pond adjacent to the Springfield Distribution Pipeline) could occur if construction activities result in erosion and sedimentation to adjacent habitats, or if an accident during construction were to result in the release of hazardous materials into the environment. In addition, construction activities, including vegetation removal and trenching, within the Evaluation Area may result in direct mortality of individuals, if present at the time of construction. Vehicle strikes from construction equipment and vehicles may also occur if CTS disperse through the Evaluation Area. This would be considered take of a listed species under ESA and CESA, and a significant impact under CEQA. Take of this species can be avoided and/or impacts **reduced to a less-than-significant level with implementation of Mitigation Measures BIO-1 through BIO-6, and BIO-12.**

The Project is located within the known dispersal range of CRLF. Aquatic breeding habitat for CRLF is not present within the Evaluation Area; however, upland and dispersal habitat for this species are present within undeveloped portions of the Evaluation Area, with the exception of the ruderal habitat within the Iron and Manganese Treatment Plant and PWS Tank Rehabilitation components. Potential non-breeding aquatic habitat (i.e. emergent wetland) is also present immediately adjacent to the Springfield Distribution Pipeline component. The Project would not result in direct impacts to CRLF aquatic breeding or non-breeding habitat or a loss of upland habitat, and the Project has been designed to avoid impacts to riparian habitat, including using HDD under the riparian habitat within the Project site. Temporary impacts to CRLF upland and dispersal habitat may occur as a result of vegetation removal and trenching, and indirect impacts could occur if construction activities result in erosion and sedimentation to adjacent habitats, or if an accident during construction were to result in the release of hazardous materials into the environment. The only new above-ground permanent components of the Project that may permanently impact CRLF upland and dispersal habitat are the Transmission Booster Pump Station and Bluff-Jensen Tank and Booster Pump Station components; however, these components are currently actively disturbed associated with the existing SMWS wells facility and active row cropping, respectively, and therefore the habitat is degraded. Construction activities, including vegetation removal and trenching, within the Evaluation Area may result in direct mortality of individuals, if present at the time of construction. Vehicle strikes from construction equipment and vehicles may also occur if CRLF disperse through the Project site. This would be considered take of a listed species under ESA, and a significant impact under CEQA. Take of this species can be avoided and/or **impacts reduced to a less-than-significant level with implementation of Mitigation Measures BIO-1 through BIO-6, and BIO-12.**

The Springfield Expansion Area and a portion of the Bluff-Jensen Expansion Area are located within the known dispersal range of SCLTS. Riparian habitat located immediately adjacent to the Evaluation Area within these areas may provide habitat for this species. The Project has been designed to avoid all impacts to SCLTS habitat, including using HDD under the riparian habitat within the Project site. However, direct impacts could occur if work were conducted outside of Project limits within the riparian habitats, and indirect impacts could occur if construction activities result in erosion and sedimentation to adjacent habitats or if an accident during construction were to result in the release of hazardous materials into the environment. These would be considered take of a listed species under ESA and CESA, and a significant impact under CEQA. **Implementation of Mitigation Measures BIO-1 through BIO-6** would ensure avoidance of take of SCLTS that may be present outside of Project work areas during construction and would **reduce impacts to a less-than-significant level** under CEQA. Acquisition of regulatory permits from the USFWS and CDFW for SCLTS is not required as potential impacts would be avoided with implementation of the mitigation.

**Mitigation Measure BIO-12:** Prior to construction, the Project Applicant shall comply with the ESA and CESA and contact the agencies to solicit concurrence that the Project would not result in take or to acquire take authorization. Take authorization may require the Applicant to retain a qualified biologist to prepare a mitigation plan, which would include, but is not limited to, identifying avoidance and minimization measures, a mitigation strategy, and funding assurances. The Project Applicant would be required to implement the approved plan and any additional permit requirements.

***Crotch and Western Bumble Bee.*** The special-status CBB and WBB have the potential to forage and nest within the Evaluation Area (see **Table 12** for specific Project components). Vegetation removal activities have the potential to directly impact these species through mortality of individuals, destruction or disturbance of nests, and/or disturbance of habitat if present within the Project site. Mortality of CBB and/or WBB would be considered take of a listed species under CESA and would require approval from CDFW. These are potentially significant impacts that can be **reduced to less-than-significant with implementation of Mitigation Measures BIO-1 through BIO-6, BIO-13, and (as applicable) BIO-12.**

**Mitigation Measure BIO-13:** A qualified biologist shall conduct surveys for CBB and WBB individuals and active colonies in accordance with CDFW's *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* or the most current CDFW survey guidelines. The surveys shall be conducted within areas of appropriate habitat (foraging, nesting, and overwintering) that will be impacted by the Proposed Project and, where feasible, an approximate 50-foot buffer of those areas. Surveys shall occur during the CBB and WBB life cycle when floral resources are present (ideally during peak bloom), on sunny days with wind speeds below eight miles per hour, and at least two hours after sunrise and three hours before sunset. The surveys shall be conducted no more than one year (i.e. active season) prior to initiation of construction. If no CBB individuals or active colonies (or suspected CBB or WBB that cannot be identified) are observed during the surveys, then no additional mitigation is necessary. If CBB or WBB individuals or active colonies (or suspected CBB or WBB that cannot be identified) are observed, the Applicant shall comply with CESA and contact CDFW to solicit concurrence that the Proposed Project will not result in take or to acquire take authorization in accordance with **Mitigation Measure BIO-12**.

*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, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

***Riparian and Wetland Habitat.*** Approximately 0.1 acre of riparian habitat is present within the Evaluation Area within the Transmission Main easement near the Springfield Road and SR 1 intersection. In addition, riparian and emergent wetland habitats are present immediately adjacent to the Evaluation Area, including associated with the adjacent Struve Pond, Werner Lake, the pond along Hilltop Road, and a roadside ditch along Struve Road. The floristic alliances occurring within riparian habitat are identified as sensitive on CDFW's *California Natural Communities List* (CDFW, 2025a). In addition, riparian areas are subject to the jurisdiction of CDFW under Section 1602 of the Fish and Game Code, meet the definition of ESHA under the CCA, and some areas may meet the definition of a state wetland. Wetland areas adjacent to the Evaluation Area also meet the definition of ESHA and some areas may meet the definition of a state wetland. A wetland delineation was not conducted as it was determined that these adjacent areas could be completely avoided and protected during construction.

County Code permits development on parcels containing or within 100 feet of sensitive habitats (including riparian habitat) only if the development would not have a significant adverse impact on the habitat's long-term maintenance. The Monterey County CIP identifies that all development, including

vegetation removal, excavation, grading, filling, and the construction of roads and structures, is prohibited within ESHA, and development within 100 feet of ESHA that adversely impacts the habitat's long-term maintenance is not permitted. Further, the CIP requires protection of riparian habitat by establishing setback requirements of 150 feet on each side of the bank of perennial streams and 50 feet on each side of the bank or intermittent streams, or the extent of the riparian vegetation, whichever is greater, and protection of coastal wetlands by establishing setbacks of 100 feet from the landward edge of vegetation associated with the wetland. However, the LUP and LCP allow for exceptions to development in and adjacent to ESHA (such as activities for maintenance of existing structures and roads, activities associated with fish and wildlife habitat improvements, watershed restoration, or installation of utility lines) and to setback requirements if it is determined through a biological survey that impacts of such activities would not harm the habitat's long-term maintenance or cause significant degradation of the habitat.

The Project would not result in loss of riparian habitat, as HDD will be used where riparian habitat is present within the Project area; however, direct impacts to riparian and wetland habitats could occur if work were to occur outside of Project boundaries within adjacent habitat. Additionally, indirect impacts to riparian and wetland could occur if construction activities result in erosion and sedimentation to adjacent habitats, or if an accident during construction were to result in the release of hazardous materials into the environment. These are potentially significant impacts that can be **reduced to less-than-significant with implementation of Mitigation Measures BIO-1 through BIO-3.** Acquisition of regulatory permits from the ACOE and RWQCB would not be required; however, CDFW would require a Streambed Alteration Agreement for the HDD under the riparian area, and a CDP is required for development within the coastal zone.

Portions of the Evaluation Area are within 100 feet of riparian and wetland habitat and within 50 feet of an intermittent drainage. However, the Proposed Project has been designed to construct new permanent Project features outside of these buffer zones and align pipelines within existing roads where feasible, with the exception of the easement between Jensen Road and Springfield Road which is predominantly active agriculture and denuded agricultural roads. Development within the Project site would not alter the water source for the riparian habitat (i.e., groundwater or river flooding). In addition, the Project is subject to standard stormwater requirements and therefore would not result in contamination of the sensitive habitats or drainages. Additionally, **implementation of Mitigation Measures BIO-1 through BIO-3 and BIO-6** would ensure that riparian and wetland habitats are protected during construction **and impacts are reduced to less-than-significant**. Therefore, the proposed development would not have a significant adverse impact of the long-term maintenance or cause significant degradation of the riparian or wetland habitats within or adjacent to the Proposed Project.

***Oak Woodland Habitat.*** Although not specifically identified as ESHA, the LUP identifies that oak woodland on 25 percent slopes should be left in its native state and development within oak woodland on 25 percent slopes or less shall be cited to minimize disruption of vegetation and habitat loss. Approximately 0.1 acre of oak woodland is present within the Evaluation Area within the Transmission Booster Pump Station component; however, this habitat is isolated and very disturbed as a result of the existing operations. The Project would remove two (2) coast live oak trees within this area; however, because the Project components have been sited as close to and within existing disturbed areas, the Project will not result in oak woodland habitat loss and this is a **less-than-significant 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?*

The Proposed Project has been designed to construct permanent Project features within existing facilities and align pipelines within existing roads or already disturbed areas. The Proposed Project does not include any work, including direct removal, filling, and hydrological interruption, within Federally protected wetlands as defined by Section 404 of the CWA and Wetland Protection Executive Order 11990, and **no impact would occur**.

*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?*

The Proposed Project has been designed to construct permanent Project features within existing facilities or already disturbed areas and align pipelines within existing roads and disturbed shoulders. In addition, the Proposed Project has been designed to avoid direct impacts to riparian habitats and other adjacent potential wildlife habitat areas. Therefore, the Proposed Project would not interfere with the movement of any native resident or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native nursery sites. **This impact is less-than-significant**, and no mitigation is required.

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

The Proposed Project may result in the removal of coast live oak trees, which are protected under Monterey County Code. This is a potentially significant impact that can be **reduced to a less than significant level with implementation of Mitigation Measure BIO-14.**

> **Mitigation Measure BIO-14:** Prior to the issuance of a grading permit, the District shall obtain a tree removal permit from the County if impacts to coast live oak trees are proposed. If the Project is to remove three or more trees, a Forest Management Plan will be prepared and submitted to the County for review and approval. The District shall implement any additional mitigation measures required by the tree removal permit.

*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?*

The majority of the Proposed Project area is within roadway ROWs and previously disturbed areas. The Proposed Project would comply with local policies and ordinances of the 1982 Monterey County General Plan, 2010 Monterey County General Plan, North County Area Plan, and North County LUP protecting biological resources in the Proposed Project area. Additionally, there are no adopted HCPs or NCCPs that apply to the Proposed Project area. The Proposed Project would require tree removal at the Transmission Booster Pump Station site. However, all tree removal would occur in compliance with a tree removal permit to be issued by the County of Monterey, and would not conflict with local policies or ordinances related to tree removal. Therefore, the Proposed Project would have a **less-than-significant impact** relative to local policies or ordinances to protect biological resources.

## 4.5. CULTURAL RESOURCES

Achasta Archaeological Services ("Achasta") prepared a Phase I Archaeological Assessment for the Proposed Project in November 2023. Achasta then updated the Phase I Archaeological Assessment in July 2025 to include additional areas added to the Proposed Project. The Phase I Archaeological Assessment includes the results of background research and field reconnaissance of the Proposed Project's Area of Potential Effect ("APE"). Background research consisted of a records search from the Northwest Information Center ("NWIC") at Sonoma State University and a Sacred Lands File search with the Native American Heritage Commission ("NAHC"). The field reconnaissance consisted of a Phase I pedestrian and windshield survey of the APE on October 13, 2023, for cultural and Tribal cultural resources, as well as additional surveys between 2024 and 2025 to cover Project areas not captured in the original survey effort.[8]

**Environmental Setting**

Prior to the Spanish missionary's arrival to what is now known as Monterey County in 1770, the Esselen and Salinan Tribes subsisted as hunter-gatherers. Based on 18th century observations, the Esselen and Salinan Tribes were semisedentary with a partial dependence on acorn crops beginning in the Late Period, circa 750 years before present ("YBP"). This is evidenced by bedrock mortar sites throughout California. Habitation sites are regularly found along streams and confluences, and in the vicinity of natural springs and seeps; however, the original location of these drainages may have been altered due to natural or human impacts to landscapes. Habitation, gathering, and processing sites are typically located along historic and contemporary river and creek drainages, marshlands, and vernal ponds throughout Monterey County's interior woodland and grassland areas (Achasta, 2025).

In 1770, the Spanish expedition led by Captain Don Gaspar de Portolá and Franciscan Father Junípero Serra, established the first colonial settlement in the region with the founding of the presidio and Mission San Carlos Borromeo de Monterey. In 1797, Fermin de Lasuen established Mission San Juan Bautista, located approximately 5.6-miles from the Project area (Achasta, 2025). Although generally separated by the moderately rugged terrain of the Gabilan Range, the cultural intrusion of San Juan Bautista's missionaries affected the northern Salinas Valley Esselen and Salinan Tribal districts of Mustak, Imuna-Kan, and Ensen.

Significant changes for the missions, including the opportunity to engage in international trade, began when Mexico achieved independence from Spain in 1822. Spanish land control practices were replaced with private land grants given or sold to prominent Californio families after the secularization of the California missions. In 1848 after the end of the Mexican-American War, the United States annexed nearly all of the territory of the present states of New Mexico, Utah, Nevada, Arizona, California, Texas, and western Colorado (Achasta, 2025).

The Indigenous peoples of the Central Coast continue to be identified by anthropologists according to linguistic groups, including the Esselen, Costanoan-Rumsen, Yokut, and Mutsun Tribes. Hokan-root languages, including Salinan and Esselen, are thought to be among the oldest linguistic groups so far identified in California. Previous ethnographic maps drawn by anthropologists indicated the Yokut-Mutsun, Costanoan-Rumsen, and Esselen traditional territories overlapped the northern and eastern Esselen territories near the subject parcel. Local Indigenous Knowledge of the contemporary Esselen, Costanoan-Rumsen, and Yokut-Mutsun Tribes has redrawn the extent of these Tribal traditional landscapes. Current Esselen ethnographic boundaries overlapping Costanoan-Rumsen and Yokut-

[8] Achasta's survey effort also covered areas along the western portion of Springfield Road, Giberson Road, and unnamed farm roads that were originally anticipated to be included but later eliminated from the Proposed Project.

Mutsun ethnographic boundaries include the Gabilan Range terminus in the southeast, the western slopes of To-yatak (Fremont's Peak) to the northeast, the Pajaro River corridor in the north and west, and Salmon Creek near the present-day San Luis Obispo County-Monterey County boundary. The ethnographic boundaries of the Costanoan-Rumsen Tribes in region include the coastal and inland areas of Monterey and Santa Cruz counties. The currently defined traditional Mutsun territory includes the mouth of Gazos Creek in the northwest, northeast to approximately Santa Nella Village, southeast to the present community of Huron, and southwest to the present location of King City (Achasta, 2025).

The Proposed Project falls within two (2) previously identified APEs. The Pajaro APE is located in Monterey County's High and Moderate Archaeological Sensitivity Zones and intersects Monterey County's coastal planning areas north of Moss Landing and inland planning areas within the community of Pajaro. The North Moss Landing APE is located within the north of Moss Landing area is designated a High Archaeological Sensitivity Zone.

**Regulatory Environment**

***Federal***

*National Historic Preservation Act.* Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. § 300301 et seq.), as amended, requires that a federal agency with direct or indirect jurisdiction over a proposed federal or federally assisted undertaking, or issuing licenses or permits, consider the effect of the proposed undertaking on historic properties. A historic property may include a pre-contact or post-contact building, structure, object, site or district included in, or eligible for inclusion in, the National Register of Historic Places ("NRHP or National Register") maintained by the U.S. Secretary of the Interior. Federal agencies must also allow the ACHP to comment on the proposed undertaking and its potential effects on historic properties. The implementing regulations for Section 106 of the NHPA (36 CFR 800) require consultation with the SHPO, the ACHP, federally recognized Indian tribes and other Native Americans, and interested members of the public throughout the compliance process. The four (4) principal steps are:

- Initiate the Section 106 process, including consultation with interested parties (36 CFR 800.3);
- Identify historic properties, i.e., resources included in or eligible for inclusion in the National Register (36 CFR 800.4);
- Assess the effects of the undertaking on historic properties within the area of potential effect (36 CFR 800.5); and
- Resolve adverse effects (36 CFR 800.6).

Adverse effects on historic properties are often resolved through preparation of a Memorandum of Agreement or Programmatic Agreement developed in consultation between the federal agency, the SHPO, Indian tribes, and interested members of the public. The ACHP is also invited to participate. The agreement describes stipulations to mitigate adverse effects on historic properties listed in or eligible for the National Register (36 CFR 60).

***National Register of Historic Places.*** The National Historic Preservation Act established the National Register as "an authoritative guide to be used by federal, state, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR Section 60.2). The National Register recognizes both historic-era and precontact archaeological properties that are significant at the national, state, and local levels.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Buildings, structures, objects, sites or districts of potential significance must meet one (1) or more of the following four (4) established criteria (NPS, 1990):

A. Are associated with events that have made a significant contribution to the broad patterns of our history;

B. Are associated with the lives of persons significant in our past;

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

D. Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least 50 years old to be eligible for National Register listing (NPS, 1990). In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as "the ability of a property to convey its significance" (NPS, 1990). The National Register recognizes seven (7) qualities that, in various combinations, define integrity. To retain historic integrity a property must possess several, and usually most, of these seven (7) aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance. The seven (7) factors that define integrity are location, design, setting, materials, workmanship, feeling, and association.

Although the National Register standards for historic integrity are high, the National Register accepts that a property "must also be judged with reference to the particular criteria under which a resource is proposed for eligibility." Most archaeological properties are evaluated under Criterion D; the most applicable qualities of integrity under this criterion are those of location, materials, and association.

Integrity also defines the research potential of a resource. To possess research potential, archaeological data must have integrity in the form of what has been called "focus." Focus, in this context, means the accuracy with which the archaeological remains represent a situation or condition. When focus is absent or inadequate because of disturbance, a resource does not retain integrity. Remains that represent several activities or have materials that cannot be separated from one another into discrete contexts may also lack focus and therefore integrity.

***State***

***California Environmental Quality Act:*** CEQA requires regulatory compliance for projects involving historic resources throughout the State. Under CEQA, public agencies must consider the effects of their actions on historic resources (Public Resources Code, Section 21084.1). The CEQA Guidelines define a significant resource as any resource listed in or determined to be eligible for listing in the California Register of Historical Resources ("California Register") [see Public Resources Code, Section 21084.1 and CEQA Guidelines Section 15064.5 (a) and (b)].

***California Public Resources Code:*** Several sections of the California PRC protect cultural resources located on public land. Under PRC Section 5097.5, no person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or precontact ruins, burial grounds, archaeological or vertebrate paleontological site (including fossilized footprints), inscriptions made by human agency, rock art, or any other archaeological, paleontological, or historical feature situated on public lands, except with the express permission of the public agency that has jurisdiction over the lands. Violation of this section is a misdemeanor.

PRC Section 5097.98 states that if Native American human remains are identified within a project area, the landowner must work with the Native American Most Likely Descendant as identified by the NAHC to develop a plan for the treatment or disposition of the human remains and any items associated with Native American burials with appropriate dignity. These procedures are also addressed in Section 15064.5 of the State CEQA Guidelines. California Health and Safety Code Section 7050.5 prohibits disinterring, disturbing, or removing human remains from a location other than a dedicated cemetery. Section 30244 of the PRC requires reasonable mitigation for impacts on paleontological and archaeological resources that occur because of development on public lands.

***California Health and Safety Code:*** California Health and Safety Code Section 7050.5 regulates the treatment of human remains. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined that the remains are not subject to his or her authority. If the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact the NAHC by telephone within 24 hours.

***California Assembly Bill 52:*** AB 52, in effect since July 2015, provides CEQA protections for Tribal cultural resources. All lead agencies approving projects under CEQA are required, if formally requested by a culturally affiliated California Native American Tribe, to consult with such Tribe regarding the potential impact of a project on tribal cultural resources before releasing an environmental document. Under California Public Resources Code Sec. 21074, tribal cultural resources include site features, places, cultural landscapes, sacred places, or objects that are of cultural value to a Tribe and that are eligible for or listed on the California Register or a local historic register, or that the lead agency has determined to be of significant tribal cultural value.

***Local***

***2010 Monterey County General Plan*:** The following policies of the 2010 Monterey County General Plan are applicable to the inland portions of the Proposed Project.

**Policy OS-6.1:** Important representative and unique archaeological sites and features shall be identified and protected for all parcels with undisturbed natural conditions (i.e., ungraded properties), consistent with State Office of Historic Preservation guidelines and definitions employed on a statewide basis, including Phase I, II, and III studies.

**Policy OS-6.2:** Information on the location and significance of the County's archaeological resources shall be compiled and used in the environmental and development review process. The County shall rely on and participate in the statewide inventory work of the California Native American Heritage Commission and the State Office of Historic Preservation. All Phase I, II, and III studies, and records of Native Californian consultation, shall be filed with appropriate state agencies and local tribes as well as local data source compilations maintained by the County. The County shall work with local tribes to update County GIS maps showing high, moderate, and low archaeological sensitivity areas.

**Policy OS-6.3:** New development proposed within moderate or high sensitivity zones, or within 150 feet of a known recorded archaeological and/or cultural site, shall complete a Phase I survey including use of the regional State Office of Historic Preservation or the California Native American Heritage Commission's list of sacred and traditional sites. Routine and

Ongoing Agricultural Activities shall be exempted from this policy in so far as allowed by state or federal law.

**Policy OS-6.4:** Development proposed in low sensitivity zones are not required to have an archaeological survey unless there is specific additional information that suggests archaeological resources are present.

**Policy OS-6.5:** Policies and procedures shall be established that encourage development to avoid impacts to sensitive archaeological sites including:

a. designing or clustering development to avoid archaeological site deposits, historic sites and resources, and Native Californian cultural sites;

b. requiring dedication of permanent conservation easements where subdivisions and other developments can be planned to provide for such protective easements.

**Policy OS-6.6:** Efforts by historical, educational, or other organizations to improve the public's recognition of the County's cultural heritage and the citizen's responsibilities for archaeological or cultural resource preservation shall be encouraged. The County shall adopt a uniform set of guidelines to define Phase I, II, and III significance assessment and data recovery programs. Similar guidelines shall be created to set standards for requirements for consultation with Native Californian descendants to establish procedures for determining the presence or absence of sacred or traditional sites. These guidelines shall address monitoring requirements and participation in cultural resource data recovery programs.

**Policy OS-7.1:** Important representative and unique paleontological sites and features shall be identified and protected. Developers shall be required to complete Phase I (reconnaissance level) paleontological reviews in any formation known to yield important elements of the fossil record. If significant fossil deposits are found during grading activities, data recovery shall be required to obtain a sample of materials from such deposits prior to their systematic destruction.

**Policy OS-7.4:** Development proposed in low sensitivity zones are not required to have a paleontological survey unless there is specific additional information that suggests paleontological resources are present.

**Policy OS-8.1:** Unique burial sites shall be identified and protected. All Native Californian cemeteries, burials, shrine sites, and sacred place locations shall be preserved in place to the greatest extent possible and as permitted by law. In cases where such sites and locations cannot be retained in place without modification, governing requirements in the Government Code, Health and Safety Code, California Environmental Quality Act and Native American Religious Freedom Act shall be taken into account in consulting with local Native Californian Tribal Groups with documented aboriginal ties to the study area and shall be carried out, as necessary, with the assistance and input of the California Native American Heritage Commission. Documentation of descent shall be based on Genealogical Proof Standards.

**Policy OS-8.3:** Development proposed at sites where known burials or human cemeteries are located shall in no case modify, disturb, excavate, or develop in such locations until all steps in compliance with CEQA, Native American Heritage Commission, Health and Safety Code and Government Code, and in accordance with any completed MOU with a local Tribe, have been completed. Routine and Ongoing Agricultural Activities are exempted from

this policy in so far as allowed by state or federal law. In the case of any conflict of interpretation, state requirements for the protection of burial sites are applicable and shall be implemented in good faith.

**Policy OS-8.4:** Policies and procedures shall be established that encourage development to avoid impacts to burial sites including:

a. Designing or clustering development to avoid archaeological deposits that typically contain human remains and to avoid any known cemeteries or other concentrations of human remains;

b. Requiring dedication of permanent conservation easements if subdivisions and other developments can be planned to provide for such protective easements;

c. In all cases where human remains are identified through CEQA review, archaeological research, ethnohistoric research, inadvertent grading disturbance, or historic record research, the County shall consult with the designated "most likely descendants" as identified by any Memorandum of Understanding ("MOU") adopted pursuant to Policy OS-8.7. In the event no MOU is executed, the Native American Heritage Commission shall be consulted to help determine the appropriate Tribal Group in that portion of the County where the burial remains are identified.

**Policy OS-8.6:** Tribal representatives will be consulted, consistent with state preservation law, about the location of sacred places, ancestral sites, archaeological remains of village sites, burial and cemetery sites, and other significant cultural resources during the preparation of any General Plan amendment, Master Plan, Community Plan, or Specific Plan.

***North County Area Plan*:** None of the policies provided in the North County Area Plan are applicable to the inland portions of the Proposed Project.

***1982 Monterey County General Plan*:** The following policies of the 1982 Monterey County General Plan are applicable to the coastal portions of the Proposed Project.

**Policy 12.1.3:** All proposed development, including land divisions, within high sensitivity zones shall require an archaeological field inspection prior to project approval.

**Policy 12.1.6:** Where development could adversely affect archaeological resources, reasonable mitigation procedures shall be required prior to project approval.

**Policy 12.1.7:** All available measures, including purchase of archaeological easements, dedication to the County, tax relief, purchase of development rights, consideration of reasonable project alternatives, etc., shall be explored to avoid development on sensitive archaeological sites.

***North County LUP*:** The following cultural resources policies provided in the North County LUP are applicable to the coastal portions of the Proposed Project:

**2.9.1:** North County's archaeological resources, including those areas considered to be archaeologically sensitive but not yet surveyed and mapped, shall be maintained and protected for their scientific and cultural heritage values. New land uses, both public and private, should be considered compatible with this objective only where they

incorporate all site planning and design features necessary to minimize or avoid impacts to archaeological resources.

**2.9.2.1:** Monterey County shall encourage the timely identification and evaluation of archaeological, historical, and paleontological resources, in order that these resources be given consideration during the conceptual design phase of land use planning or project development.

**2.9.2.2:** Whenever development is to occur in the Coastal Zone, including any proposed grading or excavation activity or removal of vegetation for agricultural use, the Archaeological Site Survey Office or other appropriate authority shall be contacted to determine whether the property has received an archaeological survey. If not, the parcel(s) on which the proposed development will take place shall be required to have an archaeological survey made if located:

a) within 100 yards of the floodways of the Pajaro or Salinas Rivers McCluskey, Bennett, Elkhorn, Moro Cojo, or Tembladero Sloughs, the Old Salinas River Channel or Moss Landing Harbor;

b) within 100 yards of any known archaeological site (unless the area has been previously surveyed and recorded).

The archaeological survey should describe the sensitivity of the site and appropriate levels of development, and development mitigation consistent with the site's need for protection.

**2.9.3.4:** All available measures, including purchase of archaeological easements, dedication to the County, tax relief, purchase of development rights, etc., shall be explored to avoid development on sensitive prehistoric or archaeological sites.

**2.9.2.4:** When developments are proposed for parcels where archaeological or other cultural sites are located, project design shall be required which avoids or substantially minimizes impacts to such cultural sites. To this end, emphasis should be placed on preserving the entire site rather than on excavation of the resource, particularly where the site has potential religious significance.

**2.9.3.1:** No development proposals in archaeologically sensitive areas or in areas described in policy 2.9.2(2) above shall be categorically exempt from environmental review.

**2.9.3.2:** When sufficient planning flexibility does not permit avoiding construction on archaeological or other types of cultural sites, adequate preservation measures shall be required. Mitigation shall be designed in accordance with guidelines of the State Office of Historic Preservation and the State of California Native American Heritage Commission. Any adverse impacts of development on archaeological or paleontological resources will be mitigated to the maximum extent feasible.

**2.9.3.3:** Off-road vehicle use, unauthorized collecting of artifacts, and other activities which could destroy or damage archaeological or cultural sites shall be prohibited.

**2.9.3.4:** Public access to or over known archaeological or paleontological sites should be limited, and concentrated in areas where supervision and interpretive facilities are available.

***Monterey County Code:*** The County of Monterey Zoning Ordinance (Title 20) contains regulations for areas of historical and archaeological sensitivity inside the Coastal Zone. Title 20 states that the majority

of alterations in a Historic Resources ("HR") zoning district requires approval of a Coastal Development Permit unless the alterations are minor and do not harm existing archaeological or historical resources. Title 20 refers readers to Part 2 (North County) of the Monterey County Coastal Implementation Plan for areas of archaeological sensitivity inside the Coastal Zone.

The County of Monterey Zoning Ordinance (Title 21) contains regulations for areas of historical and archaeological sensitivity for areas outside the Coastal Zone. Title 21 requires preparation of a Phase I Inventory of Archaeological Resources for development within: 1) high archaeological sensitivity zones; 2) moderate archaeological sensitivity zones if development requires CEQA approval; 3) low archaeological sensitivity zones where specific information exists that archaeological resources are present; or 4) within 250 feet of a known archaeological or tribal cultural resource (Section 21.66.050). The Phase I Inventory is required to include a minimum of a records search of available resource information at the NWIC of the California Historic Resources Information System ("CHRIS"), a determination of whether the project area has been previously surveyed in full or in part, and, if no or limited survey information is available, the results of a pedestrian survey of the project area.

| **Would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? | ☐ | ☐ | ☐ | ■ |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | ☐ | ■ | ☐ | ☐ |
| c) Disturb any human remains, including those interred outside of dedicated cemeteries? | ☐ | ■ | ☐ | ☐ |

**Impact Discussion**

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

CEQA Guidelines Sec. 15064.5 defines a historical resource as one being listed in or determined to be eligible by the State Historical Resources Commission, for listing in the California Register. Public Resources Code Section 21084.1 states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. According to Achasta's Phase I Assessment, there are two (2) historic-era resources within the Proposed Project's APE. However, the Proposed Project does not include work with undisturbed areas within or adjacent to the boundaries of these resources. The Proposed Project would not cause a substantial change in the significance of a historical resource as defined by CEQA Guidelines Sec. 15064.5 or Section 106 of the National Historic Preservation Act. The Proposed Project area does not contain any historic resources listed in the California Inventory of Historical Resources, California Historical Landmarks, or the National Register. Therefore, the Proposed Project would have **no impact** on a historical resource.

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

Section 21083.2 of the Public Resources Code requires lead agencies to assess potential impacts to archaeological resources and determine whether a project may cause a substantial adverse change in the significance of an archaeological resource. Achasta conducted a records search at the NWIC, a Sacred Lands File search with the NAHC, and completed a visual inspection of the Proposed Project area. Achasta did not observe archaeological resources during visual surveys of the Project area. However, the Project area carries moderate to high archaeological sensitivity and resources have been previously recorded both within the Project's APE and within a 750-foot radius of the Project's APE. Therefore, construction activities undertaken as part of the Proposed Project could potentially result in the inadvertent discovery of archaeological resources in the event that archaeological resources are exposed or damaged during construction. Therefore, the Proposed Project would **implement Mitigation Measures CUL-1 through CUL-3 to ensure impacts remain less-than-significant**.

**Mitigation Measure CUL-1**: Prior to Project related ground disturbance, the District shall retain a qualified archaeologist and a Tribal Citizen affiliated with one (1) or more of the Tribes who requested consultation with the District for the Proposed Project to provide cultural sensitivity training to all construction personnel involved in ground disturbing activities. The training shall explain (1) the reasons for archaeological and Tribal resource monitoring; (2) regulatory policies protecting archaeological and Tribal resources and human remains; (3) basic identification of archaeological and Tribal resources; and (4) the protocol to follow in case of a discovery of such resources. Construction personnel shall not be permitted to operate equipment within the construction area unless they have attended the training. A list of the names of all personnel who attended the training, and copies of the signed acknowledgement forms shall be submitted to the District and the Tribes who requested consultation on the Proposed Project.

**Mitigation Measure CUL-2**: Prior to Project related ground disturbance, the District shall retain the services of a qualified archaeological consultant who has expertise in California Precontact settings, and a Tribal Citizen affiliated with one (1) or more of the Tribes who requested consultation with the District for the Proposed Project, to monitor, at a minimum, all Project related ground-disturbing activities into native soils in the following areas:

- West Springfield Road and McClusky Slough areas,
- Struve Road between CA-1 and Giberson Road,
- Trafton Road,
- Salinas Road north of the Pajaro Valley Golf Club, and
- Junction of Salinas and Elkhorn Roads west of Warren Lake.

In addition to the monitoring for the specific locations identified above, the District shall retain the archaeological consultant on an on-call basis in the event of inadvertent discoveries throughout ground disturbing activities during Project construction.

**Mitigation Measure CUL-3**: In the event that any previously undiscovered Precontact or historic materials are found during construction, all work shall stop in accordance with CEQA regulations until the qualified archaeologist and a Tribal Citizen affiliated with one (1) or more of the Tribes who requested consultation with the District for the Proposed Project has the opportunity to evaluate the find and provide additional treatment recommendations. If the resource is considered significant by the archaeologist and the Tribal Citizen, all ground disturbance shall be halted until

appropriate mitigation measures are implemented as determined necessary by the qualified archaeologist, the lead agency, and Tribal Citizen. With the implementation of appropriate measures, selected by the responsible parties, any impact on previously undiscovered cultural resources will be reduced to be less than significant. Measures may include, but are not limited to:

- Planning construction to avoid the resource (PRC §21083.2(a)(1)),
- Deeding the resource into a permanent conservation easement (PRC §21083.2(a)(2)),
- Capping or covering the resource with soil prior to construction (PRC §21083.2(a)(3)),
- Planning parks, green spaces, or other open space to incorporate the resource (PRC §21083.2(a)(4)), and
- Excavation of the resource; restricted to contexts that would otherwise be damaged or destroyed by a project (PRC §21083.2(d)).

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

No known human remains, including those interred outside of formal cemeteries, are known to occur on the Proposed Project area. However, the Proposed Project area yielded positive results from a Sacred Lands File search. The presence of known Native American remains were not identified during consultation. While the likelihood of human remains, including those interred outside of a formal cemetery, with the Proposed Project area is low, it is possible that previously unknown human remains may be present. Ground disturbing construction activities may impact previously unknown remains. As a result, mitigation is required to minimize potential impacts from inadvertent discovery of human remains to less-than-significant. The **implementation of the following mitigation measure** identified below would ensure potential adverse impacts to human remains would be **reduced to less-than-significant**.

**Mitigation Measure CUL-4*:*** If human remains are found at any time within the construction area, work shall be stopped, and the County Coroner must be notified immediately. If the County Coroner determines that the remains are Native American, the Native American Heritage Commission will be notified as required by law. The commission will designate a Most Likely Descendant who will be authorized to provide recommendations for management of the Native American human remains. (Ref. California Public Resources code Section 5097.98; and Health and Safety code Section 7050.5). Work shall not resume until the County Corner determines that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

## 4.6. ENERGY

### Environmental Setting

Pacific Gas and Electric (“PG&E”) provides electricity and natural gas throughout Monterey County, and thus, would be the energy utility provider of the Proposed Project area. Beginning in 2018, all PG&E customers in Monterey, San Benito, and Santa Cruz Counties were automatically enrolled in Central Coast Community Energy (“3CE”). 3CE is a community choice energy agency that has committed to providing its customers with 100 percent carbon-free energy by the year 2030 (3CE, 2025). Community

choice energy agencies allow local governments to procure power on behalf of their residents, businesses, and municipal accounts from an alternative supplier while still receiving transmission and distribution service from their existing utility provider (in this case, PG&E). This is typically an attractive option for communities that want more local control over their electricity sources, more clean energy than their default utility offers, and/or lower electricity prices. Per Public Utilities Code Section 366.2, customers have the right to opt-out of the community choice energy program and continue to receive service from the incumbent utility (PG&E) if they so choose.

The Proposed Project consists of the consolidation of the PWS, SMWS, and SWS, as well as the various water connections in the NOML area into a single water system that the District would own and operate. In addition, the Proposed Project includes additional infrastructure improvements to facilitate O&M of the new water system. The Proposed Project would consolidate several smaller water systems and construct infrastructure improvements to improve water quality, water supply reliability, and vulnerabilities to failure.

**Regulatory Environment**

***State***

***California Renewable Energy Standards*:** In 2002, California established their Renewables Portfolio Standard ("RPS") Program, with the goal of increasing the percentage of renewable energy in the State's electricity mix to 20 percent of retail sales by 2017 through enactment of Senate Bill ("SB") 1078 (CPUC, 2025). In 2006, SB 107 revised previous elements of the Public Utilities Code so the amount of renewable energy generated per year and sold to retail customers would amount to 20 percent by 2010. In 2008, the governor issued Executive Order S-14-08 and requires that retail sellers of electricity serve 33 percent of their load with renewable energy by 2020 (Governor Schwarzenegger, 2008). In October 2015, Governor Brown signed SB 350 to codify California's climate and clean energy goals. A key provision of SB 350 requires retail sellers and publicly owned utilities to procure 50 percent of the State's electricity from renewable sources by 2030 (CPUC, 2025).

***California Building Codes*:** At the State level, the California Legislature established the Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6, of the CCR (Title 24), in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three (3) years. Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments. The California Green Building Standards Code ("CalGreen") establishes mandatory green building standards for all buildings in California. The code covers five (5) categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality. Title 24 was last updated in 2022.

***Local***

***2010 Monterey County General Plan:*** There are no policies or goals from the 2010 Monterey County General Plan that would be applicable to the inland portions of the Proposed Project.

***North County Area Plan*:** None of the policies provided in the North County Area Plan are applicable to the inland portions of the Proposed Project.

***1982 Monterey County General Plan:*** There are no policies or goals from the 1982 Monterey County General Plan that would be applicable to the coastal portions of the Proposed Project.

***North County LUP*:** There are no energy-related policies provided in the North County LUP relevant to the coastal portions of the Proposed Project.

***Monterey County Code:*** The County of Monterey Zoning Ordinance indicates that the 2022 California Energy Code, CCR, Title 24, Part 6, which includes Appendix 1-A as published by the California Building Standards Commission ("BSC") is considered the adopted Energy Code for the County of Monterey (including both coastal and inland areas) (Section 18.06).

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | ☐ | ☐ | ■ | ☐ |
| b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | ☐ | ☐ | ■ | ☐ |

**Impact Discussion**

*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?*

DD&A estimated the energy use during operation of the Proposed Project in the air quality modeling for the Proposed Project (**Appendix A**), as described below.

***Construction***

The anticipated construction schedule assumes that the Proposed Project would be built-out over a period of approximately 24-30 months. The construction phase would require energy for the manufacture and transportation of building materials, preparation of the building sites (e.g., excavation, and grading), and the actual construction of the Project. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for these tasks. The construction energy use has not been determined at this time. However, the Proposed Project would not cause inefficient, wasteful, or unnecessary consumption of energy as the construction schedule and process would be designed to be efficient to avoid excess monetary costs. Equipment and fuel are not typically used wastefully on the site due to the added expenses associated with renting, maintaining, and fueling the equipment. The Proposed Project would use hand tools when possible to avoid the use of heavy machinery. Furthermore, construction activities are temporary in nature and all potential energy resource impacts would occur in the short-term. For these reasons, the Proposed Project would have **a less-than-significant impact** with regards to the wasteful, inefficient, or unnecessary consumption of energy resources during construction.

***Operation***

Operation of the Proposed Project would result in the increased consumption of energy compared to existing conditions. The annual operational energy use has not been determined at this time. Energy use would occur associated with operating the pump station and other components of the water

distribution system, security lighting, operating landscaping and maintenance equipment, and utilizing communication systems. The Proposed Project does not include natural gas infrastructure, so all energy use during normal operation would occur through consumption of electricity. However, the Transmission Booster Pump Station under Phase 1 and the Bluff/Jensen Tank and Pump Station site would utilize backup generators to ensure ongoing water service in the event of a power outage.

The Proposed Project would incorporate the specifications of the 2022 California Building Code ("CBC") standards and Title 24 energy efficiency standards (or subsequently adopted standards during the two (2)-year construction term), and CALGreen code. These standards include insulation and design provisions to minimize wasteful energy consumption, thereby improving the efficiency of the overall Project. In addition, the decommissioning of the existing system wells and private wells serving individual properties would partially offset the increased energy use of the proposed infrastructure. With adherence to applicable building codes, the Proposed Project would have a **less-than-significant impact** related to operational energy use.

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

Construction and operation of the Project would be subject to existing state energy standards and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The Proposed Project would have a **less-than-significant impact** related to energy usage and efficiency.

## 4.7. GEOLOGY AND SOILS

Pacific Crest prepared a Geotechnical Investigation for the Proposed Project in May 2025. The following section is based on the findings of the Geotechnical Investigation and available public records related to site and regional geology.

### Environmental Setting

#### *Regional Seismicity and Faults*

The Proposed Project is located in a relatively flat area located in unincorporated Monterey County, California north of the community of Moss Landing. The Proposed Project area is located in a seismically active region. The nearest active faults include the San Andreas fault, and the Zayante-Vergeles. The Zayante-Vergeles fault is located approximately 1.7 miles to the northeast of the Proposed Project and the San Andreas fault is located approximately 4.5 miles to the northeast of the closest Proposed Project component in Pajaro (USGS, 2016). As a result, the Proposed Project could be subject to seismically induced hazards during its design lifetime.

#### *Landslides*

The Proposed Project is located in a relatively flat area. The County's GIS system indicates that the Project area is of low susceptibility to landslides (County, 2025).

#### *Liquefaction*

Surface ground rupture occurs at sites traversed by or those that lie very near to a causative fault. The Project is not located in any mapped earthquake fault zones (Department of Conservation, 2024c). The County of Monterey identifies the majority of the Proposed Project area as primarily low liquefaction susceptibility, with areas of high liquefaction susceptibility near the community of Pajaro at the site of

the Iron and Manganese Treatment System and in the vicinity of the Springfield Expansion Distribution Main will be located on Springfield Road and Struve Road (County, 2025).

***Soils***

The Proposed Project is primarily located in unincorporated Monterey County, California. The California Soil Web Map produced by the University of California Davis ("UC Davis") identifies the Proposed Project area as being composed primarily of *Mocho Silt Loam, Clear Lake Clay, Pacheco Clay Loam, Elkhorn Fine Sandy Loam, Santa Ynez Fine Sandy Loam, Oceano Loamy Sand*, and *Aquic Xerofluvents* (see **Figure 11**) (UC Davis, 2024). Each of these soil types has different characteristics as discussed further below.

*Mocho Silt Loam*

The *Mocho* series is composed of very deep, well drained soils that form in alluvial material (i.e., material deposited by rivers) from sandstone and shale rock sources. This soil type has well drained characteristics, slow or medium runoff potential, moderate or moderately slow permeability, and are slightly plastic. The composition of this soil type is suitable for agriculture.

*Clear Lake Clay*

The *Clear Lake* series is composed of very deep, poorly drained soils that formed in fine textured alluvium derived from mixed rock sources. This soil type has poor drainage characteristics, negligible to high runoff potential, slow to very slow permeability, and is very plastic. The composition of this soil type is suitable for agriculture or pasture.

*Pacheco Clay Loam*

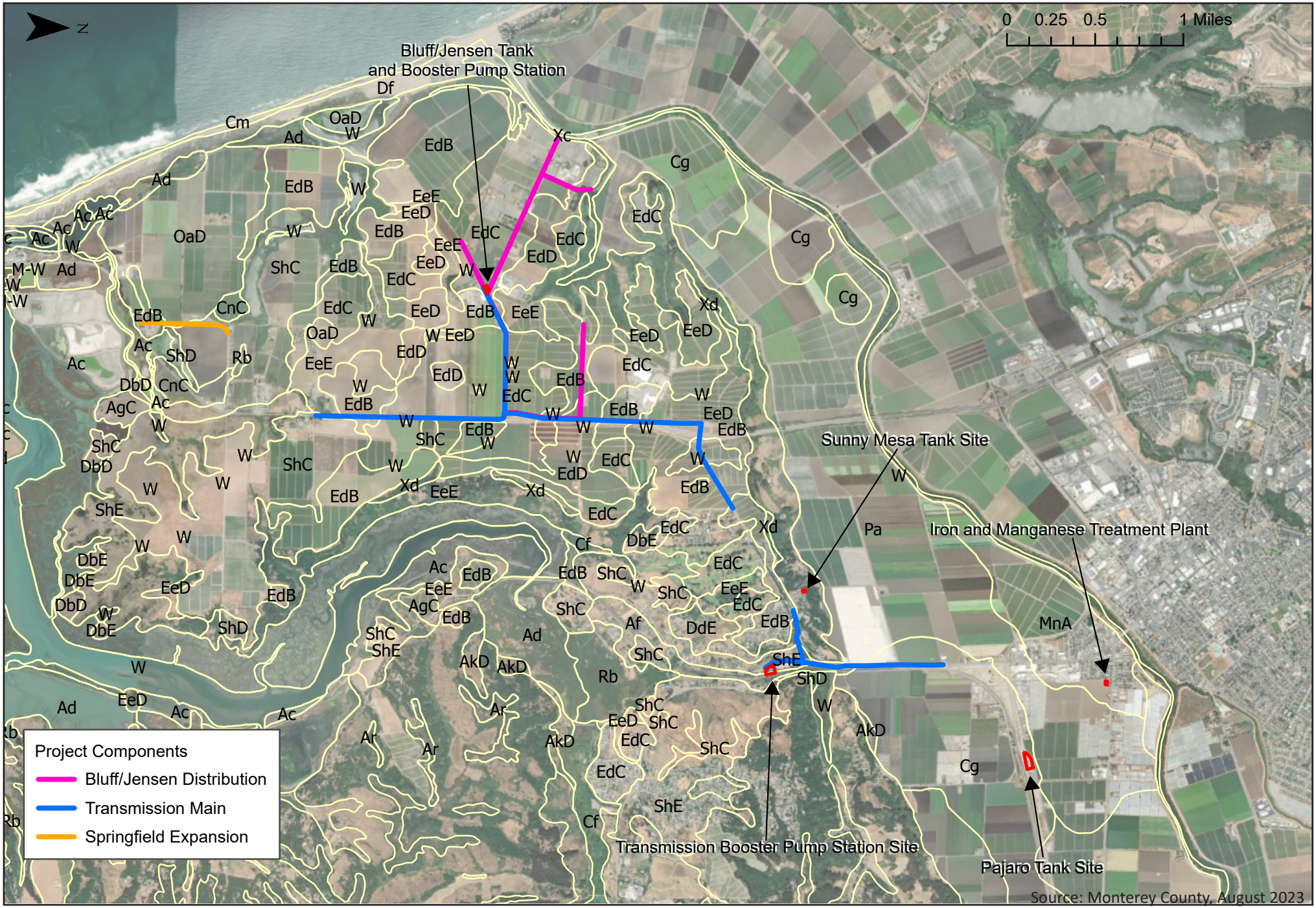
The *Pacheco* series is composed of very deep, poorly or somewhat poorly drained soils that formed in alluvium derived mostly from sedimentary rocks. This soil type has poor drainage characteristics, slow runoff potential, moderate or moderately slow permeability, and are slightly plastic. The composition of this soil type is suitable for agriculture or pasture.

*Elkhorn Fine Sandy Loam*

The *Elkhorn* series is composed of deep, well drained soils that formed in material weathered from alluvium from mixed rock sources. This soil type has well drained characteristics, slow to rapid runoff potential, moderately slow permeability, and is slightly plastic. The composition of this soil type is suitable for agriculture.

*Santa Ynez Fine Sandy Loam*

The *Santa Ynez* series is composed of deep, moderately well drained soils that formed in material weathered in alluvium from shale, sandstone and granite. This soil type has moderately well drained characteristics, slow to rapid runoff potential, very slow permeability, and is non-plastic to very plastic. The composition of this soil type is suitable for range and forage crops.




Title:

# Soil Types Map

| | |
|---|---|
| Date | 7/1/2025 |
| Scale | N/A |
| Project | 2023.47 |


Monterey | San Jose
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Figure 11

*Oceano Loamy Sand*

The *Oceano* series is composed of deep, excessively drained soils that formed in material weathered from sandy eolian (i.e., windblown sand) deposits. This soil type has excessive drainage characteristics, very slow runoff potential, very poorly developed surface drainage pattern, rapid permeability, and is plastic. The composition of this soil type is suitable for range and some agriculture with irrigation (UC Davis, 2024).

*Aquic Xerofluvents*

The Soil Web Map and Soil Data Explorer produced by UC Davis does not provide a description of *Aquic Xerofluvents*. The *Illustrated Guide to Soil Taxonomy Version 2.0* produced by the NRCS of the USDA defines *Aquic* as soils that are free of dissolved oxygen and saturated when the soil temperature is above 5 °C/41 °F, and *Xerofluvents* as soils with a Mediterranean-type climate located on flood plains along rivers or streams or on alluvial fans (USDA, 2015).

***Subsurface Conditions***

Pacific Crest conducted 46 subsurface test borings for the Proposed Project sites, as described below (Pacific Crest, 2025).

*Iron and Manganese Treatment Facility*

Pacific Crest's subsurface boring at this site to a maximum depth of 51.5 feet. The boring encountered stiff gravelly lean clay over native firm to hard sandy lean clay to a depth of 25 feet, soft to stiff silt to a depth of approximately 35 feet, and loose to medium dense silty/clayey sand to the maximum depth of exploration. Groundwater was encountered initially at 14.5 feet from ground surface but groundwater settled to a depth of about 21 feet following completion of drilling.

*Transmission Booster Pump Station*

Pacific Crest's subsurface boring at this site to a maximum depth of 50 feet. The boring encountered stiff sand strata of varying composition, including loose to medium dense clayey sand to a depth of 25 feet and dense silty sand to the maximum depth of exploration. Groundwater was encountered at a depth of about 29 feet below ground surface.

*Bluff and Jensen Water Tank Site*

Pacific Crest's subsurface boring at this site to a maximum depth of 51.5 feet. The boring encountered loose sand to a depth of 10 feet, medium dense sand to at a depth of 15 feet, and dense to very dense sand to the maximum depth of exploration. Groundwater was not encountered during boring at this site; however, Pacific Crest noted zones of groundwater seepage at depths of about 20 and 40 feet below ground surface.

*Pipeline Alignments*

Pacific Crest conducted various borings along the proposed pipeline alignments. Groundwater was encountered during five (5) test borings at depths of five (5) to seven (7) feet. Groundwater borings are described in **Table 13** below.

**Table 13.**
**Summary of Subsurface Borings for Pipeline Alignment**

| Boring | Roadway | AC (in) | AB (in) | Pipe Subgrade at 5-feet (UCSC) | Consistency/ Density |
|---|---|---|---|---|---|
| B4 | Salinas Road | 5 | 12 | Silty Sand (SM) | Medium Dense |
| B5 | Salinas Road | 10 | 3 | Silty Sand (SM) | Medium Dense |
| B6 | Salinas Road | 10 | 3 | Fat Clay (CH) | Firm |
| B7 | Salinas Road | 12 | 0 | Concrete | N/A |
| B9 | Salinas Road | 6 | 6 | Silty Sand (SM) | Medium Dense |
| B10 | Salinas Road | 3 | 2 | Sandy Fat Clay (CH) | Firm |
| B11 | Salinas Road | 3 | 5 | Clayey Sand (SC) | Medium Dense |
| B12 | Salinas Road | 3 | 7 | Clayey Sand (SC) | Medium Dense |
| B13 | Hilltop Road | 4 | 24 | Clayey Sand (SC) | Medium Dense |
| B14 | Hilltop Road | 4 | 24 | Silty Sand (SM) | Medium Dense |
| B15 | Hilltop Road | 4 | 24 | Silty Lean Clay (CL) | Very Stiff |
| B16 | Hilltop Road | 4 | 12 | Silty Sand (SM) | Medium Dense |
| B17 | Hilltop Road | 4 | 24 | Clayey Sand (SC) | Medium Dense |
| B19 | Jensen Road | 13 | 0 | Silty Lean Clay (CL) | Stiff |
| B20 | Farm Road (Jensen) | 0 | 0 | Silty Sand (SM) | Medium Dense |
| B21 | Farm Road (Jensen) | 0 | 0 | Silty Sand (SM) | Medium Dense |
| B22 | Farm Road (Jensen) | 0 | 0 | Silty Sand (SM) | Medium Dense |
| B23 | Bluff Road | 3 | 0 | Silty Sand (SM) | Loose |
| B24 | Bluff Road | 5 | 0 | Silty Sand (SM) | Medium Dense |
| B25 | Bluff Road | 3 | 0 | Silty Sand (SM) | Medium Dense |
| B26 | Trafton Road | 3 | 0 | Silty Sand (SM) | Medium Dense |
| B27 | Bluff Road | 0.5 | 3 | Silty Sand (SM) | Loose |
| B28 | Trafton Road | 4.5 | 0 | Silty Sand (SM) | Medium Dense |
| B29 | Farm Road (Hilltop) | 0 | 0 | Silty Sand (SM) | Very Loose |
| B30 | Farm Road (Hilltop) | 0 | 0 | Silty Sand (SM) | Medium Dense |
| B31 | Farm Road (Hilltop) | 0 | 0 | Sandy Lean Clay (CL) | Soft |
| B32 | Farm Road (HWY 1) | 0 | 0 | Clayey Sand (SC) | Medium Dense |
| B33 | Farm Road (HWY 1) | 0 | 0 | Clayey Sand (SC) | Medium Dense |
| B34 | Farm Road (HWY 1) | 0 | 0 | Clayey Sand (SC) | Very Loose |
| B35 | Farm Road (HWY 1) | 0 | 0 | Clayey Sand (SC) | Medium Dense |
| B36 | Farm Road (HWY 1) | 0 | 0 | Silty Sand (SM) | Medium Dense |
| B37 | Shoulder (Springfield) | 0 | 0 | Silty Sand (SM) | Very Loose |
| B38 | Springfield Road | 1 | 2 | Silty Sand (SM) | Medium Dense |
| B39 | Springfield Road | 1 | 2 | Silty Sand (SM) | Medium Dense |
| B40 | Springfield Road | 0.5 | 5 | Clayey Sand (SC) | Medium Dense |
| B41 | Struve Road | 3 | 5 | Silty Sand (SM) | Very Dense |
| B42 | Struve Road | 3 | 5 | Silty Sand (SM) | Very Dense |
| B43 | Struve Road | 3 | 5 | Silty Sand (SM) | Medium Dense |
| B44 | Shoulder (Giberson) | 0 | 0 | Sand (SP) | Medium Dense |
| B45 | Giberson Road | 3 | 3 | Silty Sand (SM) | Loose |
| B46 | Giberson Road | 2 | 5 | Silty Sand (SM) | Medium Dense |
| B47 | Giberson Road | 2.5 | 0 | Silty Sand (SM) | Medium Dense |
| B48 | Giberson Road | 1 | 1 | Sand with Silt (SP-SM) | Loose |

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### *Paleontology*

Significant paleontological resources are fossils or assemblages of fossils that are unique, unusual, rare, uncommon, and diagnostically or stratigraphically important, as well as those that add to an existing body of knowledge in specific areas, stratigraphically, taxonomically, or regionally. They include fossil remains of large to very small aquatic and terrestrial vertebrates, remains of plants and animals previously not represented in certain portions of the stratigraphy and assemblages of fossils that might aid stratigraphic correlations – particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, paleoclimatology, and the relationships of aquatic and terrestrial species. Most of the fossils found in Monterey County are of marine life forms and form a record of the region's geologic history of advancing and retreating sea levels.

**Regulatory Environment**

### *Federal*

***National Earthquake Hazards Reduction Program*:** Implemented by the Federal Emergency Management Agency ("FEMA"), the National Earthquake Hazards Reduction Program ("NEHRP") pursues research, development, and implementation of earthquake mitigation measures. Passed in 1977, NEHRP is a collaborative effort between federal, state, local governments, universities, research centers, professional societies, trade associations, and businesses. FEMA is the primary agency implementing the research and development of earthquake measures and safety materials. Implementation of these measures and materials is accomplished through the following:

- Providing federal grant programs for states and local governments to implement earthquake mitigating measures;
- engaging businesses, through the QuakeSmart program;
- providing Multi-State National Earthquake Assistance grants for public education of mitigation activities;
- collaborating with universities and non-profit organizations to encourage enforcement of building codes and use of seismic rehabilitation at a regional level;
- training for earthquake readiness and mitigation through National Earthquake Technical Assistance Program;
- providing educational materials and research reports through the FEMA Library.

NEHRP has no regulatory authority and therefore cannot enforce national earthquake standards. All the program's provisions are incumbent upon the state, local government, and business to adopt as appropriate (FEMA, 2025).

### *State*

***Alquist-Priolo Earthquake Fault Zoning Act*:** The Alquist-Priolo Earthquake Fault Zoning Act, passed in 1972, seeks to mitigate surface faulting's hazard to structures for human occupancy. In accordance with this act, the State Geologist established regulatory zones, called "earthquake fault zones," around the surface traces of active faults and published maps showing these zones. In these zones, buildings for human occupancy cannot be constructed across the surface traces of active faults. Because many active faults are complex and consist of multiple branches, each earthquake fault zone extends approximately 200 to 500 feet on either side of the mapped fault trace.

Title 14 of the CCR, Section 3601(e), defines buildings intended for human occupancy as those that would be inhabited for more than 2,000 hours per year. The Proposed Project does not cross an Alquist-Priolo Earthquake Fault Zone. Therefore, these provisions of the Alquist-Priolo Earthquake Fault Zoning Act do not apply to the Proposed Project.

***Seismic Hazards Mapping Act*:** The purpose of the Seismic Hazards Mapping Act of 1990 (PRC Sections 2690–2699.6) is to reduce damage resulting from earthquakes. The Seismic Hazards Mapping Act addresses earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. The state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards. Cities and counties are required to regulate development in mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites in Seismic Hazard Zones until appropriate site-specific geologic and/or geotechnical investigations have been conducted and measures to reduce potential damage have been incorporated into the development plans.

***Local***

***2010 Monterey County General Plan*:** The following policies from the 2010 Monterey County General Plan would be applicable to the inland portions of the Proposed Project.

**Policy OS-3.1*:*** Best Management Practices (BMPs) to prevent and repair erosion damage shall be established and enforced.

**Policy S-1.1:** Land uses shall be sited and measures applied to reduce the potential for loss of life, injury, property damage, and economic and social dislocations resulting from ground shaking, liquefaction, landslides, and other geologic hazards in the high and moderate hazard susceptibility areas.

**Policy S-1.3**: Site-specific geologic studies may be used to verify the presence or absence and extent of the hazard on the property proposed for new development and to identify mitigation measures for any development proposed. An ordinance including permit requirements relative to the siting and design of structures and grading relative to seismic hazards shall be established.

**Policy S-1.4**: The Alquist-Priolo Earthquake Fault Zoning Act shall be enforced.

***North County Area Plan*:** None of the policies provided in the North County Area Plan are applicable to the inland portions of the Proposed Project.

***1982 Monterey County General Plan*:** The following policies from the 1982 Monterey County General Plan would be applicable to the coastal portions of the Proposed Project.

**Policy 3.1.1:** Erosion control procedures shall be established and enforced for all private and public construction and grading projects.

**Policy 3.1.3:** In the absence of more detailed site specific studies, determinations of soil suitability for particular land uses shall be made according to the Soil Conservation Service's Soil Survey of Monterey County.

**Policy 15.1.1:** The following areas described in the General Plan should be defined as high hazard areas:

- zones 1/8 mile each side of active or potentially active faults;

- areas of tsunami hazard;
- areas on the Potential Seismic and Geologic Hazards Map designated as "High Hazard"; and
- areas designated as Zones IV, V, and VI on the Geotechnical Evaluation maps of the County's 1975 Seismic Safety Element

***North County LUP*:** The following geology and soils materials policies provided in the North County LUP are applicable to the coastal portions of the Proposed Project:

**2.8.2.1:** All development shall be sited and designed to minimize risk from geologic, flood, tsunami or fire hazards to a level generally acceptable to the community. Areas of a parcel which are subject to high hazard(s) shall generally be considered unsuitable for development. Any proposed development in high hazard areas shall require the preparation of an environmental or geotechnical report prior to County review of the project.

**2.8.2.2:** In high hazard areas, low intensity or open space uses will be encouraged as the most appropriate land uses. Critical facilities (fire, police, hospitals, emergency communication facilities, bridges and overpasses, public utilities, dams), shall generally be prohibited in high hazard areas.

**2.8.2.4:** As part of the development review process, all proposed development, including single-family residences on lots of record, shall be evaluated for conformance and be required to comply with adopted hazard policies applicable to the site in question.

**2.8.2.6:** In locations determined to have significant hazards, development permits shall include a special condition requiring the owner to record a deed restriction describing the nature of the hazard(s), geotechnical and/or fire suppression mitigations and, where appropriate, long-term maintenance requirements.

**2.8.3.A.1:** All development shall be sited and designed to conform to site topography and to minimize grading and other site preparation activities.

**2.8.3.A.2:** All structures, with the exception of utility lines where no alternative route is feasible, shall be sited a minimum of 50 feet from an active fault or potentially active fault. Greater setbacks may be required where it is warranted by local geologic conditions.

***Monterey County Code:*** The County of Monterey Zoning Ordinance (Title 16) provides rules and regulations for grading, inclusive of areas inside the Coastal Zone and inland areas. Title 16 requires that a soil engineering report and engineering geology report be required for any grading that requires issuance of a grading permit (Section 16.08.110). Title 16 also provides design standards for excavation (Section 16.08.300) and fills (Section 16.08.310), erosion control (Section 16.08.340), and standards for private roads (Section 16.08.350). Title 16 also includes requirements for inspection, stopping work, and final reporting.

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? | ☐ | ☐ | ☐ | ■ |
| ii) Strong seismic ground shaking? | ☐ | ☐ | ■ | ☐ |
| iii) Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ■ | ☐ |
| iv) Landslides? | ☐ | ☐ | ■ | ☐ |
| b) Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ■ | ☐ |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | ☐ | ☐ | ■ | ☐ |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | ☐ | ☐ | ■ | ☐ |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | ☐ | ☐ | ☐ | ■ |
| f) Directly or indirectly destroy a paleontological resource or site or unique geologic feature? | ☐ | ☐ | ☐ | ■ |

**Impact Discussion**

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

*a.i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*

The various components of the Proposed Project under both phases of construction are not located in an Alquist-Priolo Earthquake Fault Zone (Department of Conservation, 2024c). Additionally, there are no faults or fault zone hazard areas identified by the County of Monterey in the vicinity of the Proposed Project. The Proposed Project would be designed and constructed in accordance with standard engineering and seismic safety design techniques. **No impact** would occur.

*a.ii) Strong-seismic ground shaking?*

The Proposed Project area is in a seismically active region. The nearest active faults include the San Andreas fault, and the Zayante-Vergeles. The Zayante-Vergeles fault is located approximately 1.7 miles to the northeast of the Proposed Project and the San Andreas fault is located approximately 4.5 miles to the northeast of the closest Proposed Project component in Pajaro (USGS, 2016). As a result, the Proposed Project could be subject to seismically induced hazards during its design lifetime. However, the Proposed Project is a water system consolidation project and does not include the addition of any new habitable structures. Additionally, the final design of the Proposed Project would comply with the recommendations of a design-level geotechnical analysis anticipated to be required as part of the grading permit application. The Proposed Project would be designed and constructed in accordance with standard engineering and seismic safety design techniques of the Uniform Building Code and the CBC adopted by the County of Monterey (or any subsequently adopted revised CBC standards in place at the time of permit issuance). Compliance with existing building code requirements, standard engineering and seismic safety design techniques, as well as the recommendations of a design-level geotechnical report would ensure that the Proposed Project would minimize potential impacts. The Proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death from strong seismic ground shaking. This represents a **less-than-significant impact**.

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

The Proposed Project component closest to a mapped fault is the Iron and Manganese treatment system at the existing District offices, which is located approximately 1.7 miles from the Zayante-Vergeles fault. Therefore, there is a low potential for surface ground rupture within the Proposed Project area. The County of Monterey identifies the majority of the Proposed Project area as primarily low liquefaction susceptibility, with areas of moderate liquefaction susceptibility at the Transmission Booster Pump Station and high liquefaction susceptibility near the community of Pajaro at the site of the Iron and Manganese Treatment System and in the vicinity of the Springfield Expansion Distribution Main will be located on Springfield Road and Struve Road. To ensure impacts because of seismic related ground failure, including liquefaction, are minimized, the Proposed Project would be designed and constructed in accordance with standard engineering and seismic safety design techniques contained in the Uniform Building Code and CBC. In addition, the Proposed Project is a water system consolidation project and does not include the addition of any new habitable structures. Moreover, the Proposed Project would comply with the recommendations of the design-level geotechnical analysis prepared by Pacific Crest. The Proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death from seismic-related ground failure, including liquefaction. This represents a **less-than-significant impact**.

*a.iv) Landslides?*

Landslides are common in Monterey County due to the combination of uplifting mountains, fractured and weak rocks, and periodic intense rainfall along the coast. The level of susceptibility of an area is dependent on the local geologic conditions. The Proposed Project area is generally flat and the County identifies the area as having low landslide susceptibility (Monterey County, 2025). As a result, the Proposed Project is unlikely to be exposed to potential landslide hazards. This represents a **less-than-significant impact**.

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

The County's GIS database identifies the Proposed Project area as primarily having low erosion potential in the northern portion of the Proposed Project area, moderate erosion potential in the central and southern portions of the Proposed Project Area, and areas of high erosion along Salinas Road and Elkhorn Road within the Proposed Project area (Monterey County, 2025). The County classifies the majority of the Proposed Project area as having low or moderate erosion susceptibility (Monterey County, 2025). While the Proposed Project is located on soils with varying drainage and permeability characteristics, the Proposed Project would be designed and constructed in accordance with standard engineering and seismic safety design techniques of the CBC adopted by the County of Monterey (or any subsequently adopted revised CBC standards in place at the time of permit issuance). In addition, the Proposed Project would comply with the recommendations design-level geotechnical analysis anticipated to be required as part of the grading permit application. The Proposed Project would have a **less-than-significant impact** from substantial soil erosion or the loss of topsoil.

*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?*

The Proposed Project is not located on a geologic unit or soil that is unstable, or that would become unstable because of the Proposed Project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquification, or collapse. While the Proposed Project is located on soils with varying degrees of liquification and erosion potential, the Proposed Project would be designed and constructed in accordance with standard engineering requirements contained in the current editions of the Uniform Building Code and CBC in place at the time of permit issuance. Moreover, the Proposed Project would comply with the recommendations design-level geotechnical analysis. This represents a **less-than-significant impact**.

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

The California Soil Web Map produced by the UC Davis identifies the Proposed Project site as being composed of primarily of *Mocho Silt Loam, Clear Lake Clay, Pacheco Clay Loam, Elkhorn Fine Sandy Loam, Santa Ynez Fine Sandy Loam, Oceano Loamy Sand*, and *Aquic Xerofluvents*. These soils have varying degrees of drainage and plasticity (UC Davis, 2024). The Proposed Project is a water system consolidation project and does not include the addition of any new habitable structures. Additionally, construction of the Proposed Project would comply with the most recent regulatory requirements, which would ensure the protection of structures and occupants from geo-seismic hazards, such as expansive soils. Therefore, the Proposed Project would have a **less-than-significant impact** regarding expansive soils.

*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?*

The Proposed Project does not include the use of septic tanks or alternative wastewater disposal systems. **No impact** would occur.

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

A review of nearly 700 known fossils localities in the County was conducted in 2001, which identified 12 fossil sites as having outstanding scientific value. The Proposed Project area is not located on or near any of those sites based on a review of available GIS data for regional paleontological resources (Rosenberg, 2001). In addition, the Proposed Project would not directly or indirectly destroy any unique geological features as none are located within the Project's construction footprint. **No impact** would occur.

## 4.8. GREENHOUSE GAS EMISSIONS

### Environmental Setting

GHGs are gases that absorb and re-emit infrared radiation in the atmosphere. The gases considered as the principal contributors to human-induced climate change include carbon dioxide ("$CO_2$"), methane ("$CH_4$"), nitrous oxide ("$N_2O$"), fluorinated gases such as hydrofluorocarbons ("HFCs") and perfluorocarbons ("PFCs"), and sulfur hexafluoride ("$SF_6$"). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

Both natural processes and human activities emit GHGs. Of these gases, humans emit $CO_2$ and $CH_4$ in the greatest quantities. Emissions of $CO_2$ are largely by-products of fossil fuel combustion, whereas $CH_4$ results from off-gassing associated with agricultural practices and landfills. MBARD defines their GHG threshold in terms of carbon dioxide equivalent ("$CO_2e$"), a metric that accounts for emissions from various GHGs based on their global warming potential. If annual emissions of GHGs exceed these threshold levels, the Proposed Project would result in a cumulatively considerable contribution of GHG emissions and must implement mitigation measures (MBARD, 2016). The significance of GHG emissions may be evaluated based on locally adopted quantitative thresholds or consistency with a regional GHG reduction plan (such as a Climate Action Plan). MBARD has developed an operational GHG threshold of 10,000 metric tons per year of $CO_2e$ ("$MTCO_2e$/ year") for stationary source projects, which includes equipment, processes, and operations that require an Air District permit to operate (MBARD, 2016). MBARD has not yet adopted a threshold for construction-related GHG emissions but recommends utilizing thresholds set by neighboring districts (e.g., Sacramento Metropolitan Air Quality Management District ["SMAQMD"]). SMAQMD adopted an updated threshold based on the 2030 target year in April 2020. SMAQMD adopted the current GHG thresholds of significance, which include a construction threshold (1,100 metric tons of $CO_2e$/year) and a land use operational threshold (1,100 metric tons of $CO_2e$/year). Projects whose emissions would meet or exceed the significance criteria will have a potentially significant adverse impact on global climate change (SMAQMD, 2020).

### Regulatory Environment

#### *Federal*

***Federal Regulation and the Clean Air Act - Executive Order 13514*:** Executive Order 13514 is focused on reducing GHGs internally in federal agency missions, programs, and operations. Additionally, the executive order directs federal agencies to participate in the Interagency Climate Change Adaptation Task Force, which is engaged in developing a national strategy for adaptation to climate change.

On April 2, 2007, in Massachusetts v. USEPA, 549 U.S. 497 (2007), the Supreme Court found that GHGs are air pollutants covered by the FCAA and that the USEPA has the authority to regulate GHG. The Court held that the USEPA Administrator must determine whether emissions of GHGs from new motor

vehicles cause or contribute to air pollution which may be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision.

On December 7, 2009, the USEPA Administrator signed two (2) distinct findings regarding GHGs under section 202(a) of the Clean Air Act:

- Endangerment Finding: The Administrator found that the current and projected concentrations of the six (6) key well-mixed GHGs ($CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, and $SF_6$) in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator found the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare.

Although these findings did not impose any requirements on industry or other entities, this action was a prerequisite to finalizing the USEPA's *Proposed Greenhouse Gas Emission Standards for Light-Duty Vehicles* published on September 15, 2009. On May 7, 2010, the final *Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards* was published in the Federal Register.

USEPA and the National Highway Traffic Safety Administration ("NHTSA") are taking coordinated steps to enable the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines. These next steps include developing the first-ever GHG regulations for heavy-duty engines and vehicles and additional light-duty vehicle GHG regulations. President Obama outlined these steps in a Presidential Memorandum on May 21, 2010.

The final combined USEPA and NHTSA standards making up the first phase of this national program apply to passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. The standards require these vehicles to meet an estimated combined average emissions level of 250 grams of $CO_2$ per mile (the equivalent to 35.5 miles per gallon if the automobile industry were to meet this $CO_2$ level solely through fuel economy improvements). Together, these standards will cut GHG emissions by an estimated 960 million metric tons ("MMTs") and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012-2016). On August 28, 2012, USEPA and NHTSA issued their joint rule to extend this national program of coordinated GHG and fuel economy standards to model years 2017 through 2025 passenger vehicles.

***State***

***Assembly Bill 32 – California Global Warming Solutions Act*:** AB 32, the Global Warming Solutions Act of 2006, codifies the State of California's GHG emissions target by directing CARB to reduce the state's global warming emissions to 1990 levels by 2020. Governor Schwarzenegger signed and passed into law AB 32 on September 27, 2006. Since that time, the CARB, the California Energy Commission ("CEC"), the California Public Utilities Commission ("CPUC"), and the BSC have all been developing regulations that will help meet the goals of AB 32 and Executive Order S-3-05.[9]

A Scoping Plan for AB 32 was adopted by CARB in December 2008. It contains the State of California's main strategies to reduce GHGs from business as usual ("BAU") emissions projected in 2020 back down to 1990 levels. BAU is the projected emissions in 2020, including increases in emissions caused by growth, without any GHG reduction measures. The Scoping Plan has a range of GHG reduction actions, including direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. This plan

[9] Note that AB 197 was adopted in September 2016 to provide more legislative oversight of CARB.

required CARB and other state agencies to develop and adopt regulations and other initiatives reducing GHGs by 2012.

As directed by AB 32, CARB has also approved a statewide GHG emissions limit. On December 6, 2007, CARB staff resolved an amount of 427 MMT of $CO_2e$ as the total statewide GHG 1990 emissions level and 2020 emissions limit. The limit is a cumulative statewide limit, not a sector-or facility-specific limit. CARB updated the future 2020 BAU annual emissions forecast because of economic downturn, to 545 MMT of $CO_2e$. Two (2) GHG emissions reduction measures currently enacted that were not previously included in the 2008 Scoping Plan baseline inventory were included, further reducing the baseline inventory to 507 MMT of $CO_2e$. Thus, an estimated reduction of 80 MMT of $CO_2e$ is necessary to reduce statewide emissions to meet the AB 32 target by 2020.

CARB prepared an updated Scoping Plan which was released in 2017. The 2017 Scoping Plan identifies ways for California to reach the statewide 2030 climate target and next steps for reaching the 2050 target goal.

***Senate Bill 1368*:** SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 required the CPUC to establish a GHG emission performance standard. Therefore, on January 25, 2007, the CPUC adopted an interim GHG Emissions Performance Standard to help mitigate climate change. The Emissions Performance Standard is a facility-based emissions standard requiring all new long-term commitments for baseload generation to serve California consumers be with power plants that have emissions no greater than a combined cycle gas turbine plant. That level is established at 1,100 pounds of $CO_2$ per megawatt-hour. "New long-term commitment" refers to new plant investments (new construction), new or renewal contracts with a term of five (5) years or more, or major investments by the utility in its existing baseload power plants. Additionally, the CEC established a similar standard for local publicly owned utilities that cannot exceed the GHG emission rate from a baseload combined-cycle natural gas fired plant. On July 29, 2007, the Office of Administrative Law disapproved the CEC's proposed Greenhouse Gases Emission Performance Standard rulemaking action and subsequently, the CEC revised the proposed regulations. SB 1368 further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the CPUC and CEC.

***Senate Bill 350 – Clean Energy and Pollution Reduction Act*:** In September 2015, the California Legislature passed SB 350 (de Leon, 2015), which increases the State's RPS for content of electrical generation from the 33 percent target for 2020 to a 50 percent renewables target by 2030.

***Executive Order S-03-05*:** On June 1, 2005, Governor Schwarzenegger signed Executive Order S-03-05, the purpose of which was to implement requirements for the California Environmental Protection Agency ("CalEPA") to provide ongoing reporting on a biennial basis to the State Legislature and Governor's Office on how global warming is affecting the state. Required areas of impact reporting include public health, water supply, agriculture, coastline, and forestry. The CalEPA secretary is required to prepare and report on ongoing and upcoming mitigation designed to counteract these impacts.

***Executive Order B-30-15*:** On April 15, 2015, Governor Brown signed Executive Order B-30-15, the purpose of which is to establish a GHG reduction of 40 percent below 1990 levels by 2030. The Executive Order intended to help the state work towards a further emissions reduction target of 80 percent below 1990 levels by the year 2050. The order directed state agencies to prepare for climate change impacts through prioritization of adaptation actions to reduce GHG emissions, preparation for uncertain climate impacts through implementation of flexible approaches, protection of vulnerable populations, and prioritization of natural infrastructure approaches.

***Executive Order B-55-18 and SB 100 – 100 Percent Clean Energy Act of 2018*:** On September 10, 2018, Governor Brown signed both SB 100 – 100 Percent Clean Energy Act of 2018 and Executive Order B-55-18 to Achieve Carbon Neutrality. SB 100 sets California on course to achieving carbon-free emissions from the electric power production sector by 2045. SB 100 also increases the required emissions reduction generated by retail sales to 60 percent by 2030, an increase of 10 percent compared to previous goals. B-55-18 establishes a new goal of achieving statewide "carbon neutrality as early as possible and no later than 2045, and to achieve and maintain net negative emissions thereafter" (Governor Brown, 2018).

***California Building Code*:** The CBC contains standards regulating the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The CBC is adopted every three (3) years by the BSC. In the interim, the BSC also adopts annual updates to make necessary mid-term corrections. The CBC standards apply statewide. However, a local jurisdiction may amend a CBC standard if it makes a finding the amendment is reasonably necessary due to local climatic, geological, or topographical conditions.

***Local***

***2010 Monterey County General Plan*:** There are no policies from the 2010 Monterey County General Plan that would apply to the inland portions of the Proposed Project.

***North County Area Plan*:** There are no policies from the North County Area Plan that would apply to the inland portions of the Proposed Project.

***1982 Monterey County General Plan*:** There are no policies from the 1982 Monterey County General Plan that would apply to the coastal portions of the Proposed Project.

***North County LUP*:** There are no greenhouse gas emissions policies provided in the North County LUP relevant to the coastal portions of the Proposed Project.

***Monterey County Code:*** The County of Monterey Zoning Ordinance does not specifically discuss greenhouse gas emissions.

| **Would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☐ | ☐ | ■ | ☐ |
| b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | ☐ | ☐ | ■ | ☐ |

**Impact Discussion**

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

***Construction***

DD&A evaluated construction GHG emissions as part of **Appendix B**,[10] as shown in **Table 14.**

**Table 14**
**Construction Emissions of GHGs**

| Construction Phase | Annual Emissions ($MTCO_2e$/Year) |
|---|---|
| Site Preparation (2026) | 0.93 |
| Staging/Delivery (2026) | 20.0 |
| Grading (2026) | 4.13 |
| Building Construction (2026) | 5.75 |
| Pump Station Installation (2026) | 0.35 |
| Trenching (2026) | 22.89 |
| Trenching (2027) | 12.15 |
| Pipeline Installation (2026) | 321.8 |
| Pipeline Installation (2027) | 168.34 |
| Paving (2026) | 29.37 |
| Total Annual Construction Emissions (2026): | 405 |
| Total Annual Construction Emissions (2027): | 180 |
| Amortized Construction Emissions[1](2026): | 13.6 |
| Amortized Construction Emissions[1](2027): | 6.0 |

Source: Denise Duffy & Associates, Inc. 2025 CalEEMod. **Appendix B.**
[1]Amortized emissions are quantified based on an estimated 30-year project life.

As shown in **Table 14**, construction of the Proposed Project would generate 405 $MTCO_2e$/year in 2026 and 180 $MTCO_2e$/year in 2027. Amortized over a 30-year period, construction of the Proposed Project would generate 13.6 $MTCO_2e$/year for construction occurring in 2026 and 6.0 $MTCO_2e$/year for construction occurring in 2027.[11] These projected annual GHG emission totals would be well below SMAQMD's threshold of 1,100 $MTCO_2e$/year. Therefore, the Proposed Project would result in a **less-than-significant impact** related to generating GHG emissions during construction.

***Operation***

DD&A evaluated operational GHG emissions as part of **Appendix B**, as shown in **Table 15**.

[10] The actual construction schedule is anticipated to take approximately 30 months – the use of a 20 month construction window for modeling represents a conservative approach to GHG emissions modeling as modeled emissions would be more concentrated under a 20-month construction scenario and would result in a higher maximum annual emission of $CO_2e$.
[11] Amortized construction emissions are calculated by dividing the total estimated emissions by the estimated lifetime of the project, about 30 years. Amortizing construction emissions allows projects to analyze a combined total of construction and operational emissions over the lifetime of the project against the chosen CEQA threshold, in this case the 1,100 $MTCO_2$/year as defined by SMAQMD. Construction GHG emissions, operational GHG emissions, and total GHG emissions (amortized construction emissions plus operational emissions) for the project are all below SMAQMD's GHG threshold.

**Table 15**
**Operational Emissions of GHGs (Year 2027)**

| Source | Annual Emissions ($MTCO_2e$/Year) |
|---|---|
| Area | 0.89 |
| Energy Use (Electricity) | 41.1 |
| Energy Use (Natural Gas) | 97.8 |
| Mobile | 0 |
| Waste | 16.9 |
| Water | 18.8 |
| Refrigerants | 1.88 |
| Stationary Emissions (Emergency Generators) | 13.4 |
| Total: | 191 |
| Total with Amortized Construction Emissions:[1] | 210.6 |
| Significance Threshold: | 1,100 |
| Exceeds Significance Threshold?: | No |

Source: Denise Duffy & Associates, Inc. 2025 CalEEMod. **Appendix B**

As shown in **Table 15**, operation of the Proposed Project would generate 191 $MTCO_2e$/year of GHG. When accounting for the amortized construction GHG emissions, the proposed project would generate 210.6 $MTCO_2e$/year of GHG. Therefore, the projected annual emissions during operation of the Proposed Project would be below SMAQMD's threshold of 1,100 $MTCO_2e$/year. Therefore, the Proposed Project would result in a **less-than-significant impact** related to generating GHG emissions during operation.

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

As described above, the Proposed Project would not generate GHG emissions that would exceed applicable thresholds. Therefore, the Proposed Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This represents a **less-than-significant impact**.

## 4.9. HAZARDS AND HAZARDOUS MATERIALS

### Environmental Setting

Hazardous materials, as defined by the CCR, are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. Hazardous materials and waste can result in public health hazards if improperly handled, released into the soil or groundwater, or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer.

Government Code Section 65962.5 requires CalEPA to develop a Cortese List and update the list annually. While CalEPA no longer maintains a single Cortese List, CalEPA uses the following database and list to meet the requirements of Government Code Section 65962.5.

- List of Hazardous Waste and Substances sites from Department of Toxic Substances Control ("DTSC") EnviroStor database.

- List of Leaking Underground Storage Tank ("LUST") Sites from the State Water Board's GeoTracker database.
- List of solid waste disposal sites identified by State or Regional Water Board with waste constituents above hazardous waste levels outside the waste management unit.
- List of "active" Cease and Desist Orders ("CDOs") and Clean-up and Abatement Orders ("CAOs") from State Water Board.
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC.

In addition to these databases, the SWRCB and the DTSC maintain databases of other hazardous material release sites with documented environmental contamination (SWRCB, 2024a and DTSC, 2025). A regulatory search for the Project was conducted to identify if the Project area contains hazardous materials sites. According to the DTSC EnviroStor database, there are no contaminated cleanup sites in proximity of the Project area. The State Water Board GeoTracker database identified three (3) closed-status sites within the vicinity of the Proposed Project: Watsonville Train Depot (T0605300299) located at 499 Salinas Road and 1,200 feet to the north of the new Salinas Road transmission main (SWRCB, 2024d) and the connection point to the existing PWS component of the Project, Hilltop Mini-Mart (T0605300208) located at 1007 Salinas Road and 0.19 miles north of the North of Moss Landing Transmission Main (SWRCB 2024c), and Clint Miller Farms (T0605300017) located at 215 San Juan Road and 0.06 miles east of the Iron and Manganese Treatment System (SWRCB 2024b). No additional hazardous material sites are located on or in the vicinity of the Proposed Project area.

**Regulatory Environment**

***Federal***

***Environmental Protection Agency:*** The USEPA is responsible for enforcing regulations at the federal level pertaining to hazardous materials and wastes. The primary federal hazardous materials and wastes laws are contained in the Resources Conservation and Recovery Act ("RCRA") of 1976 and in the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") of 1980.

***Comprehensive Environmental Response, Compensation and Liability Act:*** CERCLA, more commonly known as Superfund, established the National Priorities List for identifying and obtaining funding for remediation of severely contaminated sites. Federal regulations pertaining to hazardous materials and wastes are contained in the Code of Federal Regulations (40 CFR). The regulations contain specific guidelines for determining whether a waste is hazardous, based on either the source of generation or the characteristics of the waste.

***U.S. Department of Transportation:*** The U.S. Department of Transportation ("DOT") regulates transportation of hazardous materials by truck and rail. DOT regulations establish criteria for safe handling procedures. The California Administrative Code also includes federal safety standards.

***Solid Waste Disposal Act/Federal Resource Conservation and Recovery Act*:** RCRA manages solid waste, landfills, and medical wastes. Under this act, solid wastes include hazardous materials. The act provides provisions for the generation, storage, treatment, and disposal of hazardous waste.

***Toxic Substances Control Act:*** The Toxic Substances Control Act ("TSCA"), passed in 1976, requires the USEPA to report, test, place restriction on, and keep record of chemical substances and mixtures. The USEPA has authority over the use, production, importation, and disposal of specific chemicals. Some chemicals include polychlorinated biphenyls ("PCBs"), asbestos, radon, and lead paint.

***State***

***California Environmental Protection* Agency:** The USEPA has delegated much of its regulatory authority to individual states whenever adequate state regulatory programs exist. The Department of Toxic Substance Control Division of CalEPA is the agency empowered to enforce federal hazardous materials and waste regulations in California, in conjunction with the USEPA.

California hazardous materials and waste laws incorporate federal standards, but in many respects, are stricter. For example, the California Hazardous Waste Control Law, the state equivalent of RCRA, contains a much broader definition of hazardous materials and waste. The CCR, Titles 22 and 26, contain state hazardous materials waste laws. Regulations implementing the California Hazardous Waste Control Law list hazardous chemicals; establish criteria for identifying, packaging, and labeling hazardous wastes; prescribe management of hazardous wastes; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills.

***Local***

***Regional Water Quality Control Board*:** The Central Coastal RWQCB is the lead agency responsible for identifying, monitoring, and remediating LUSTs on the Central Coast. Local jurisdictions may take the lead agency role as a Local Oversight Program ("LOP") entity, implementing State as well as local policies.

***2010 Monterey County General Plan*:** The following hazards and hazardous materials policy from the 2010 Monterey County General Plan would be applicable to the inland portions of the Proposed Project.

**Policy PS-8.3:** Programs for the routine inspection of food, water systems, sewage disposal, public housing, institutions, labor camps, swimming pools, recreation facilities, locations of hazardous substances, and noise hazards shall be established or maintained.

***North County Area Plan*:** None of the hazards and hazardous materials policies provided in the North County Area Plan are applicable to the inland portions of the Proposed Project.

***1982 Monterey County General Plan*:** The following hazards and hazardous materials policies from the 1982 Monterey County General Plan would be applicable to the coastal portions of the Proposed Project.

**Policy 15.1.1:** The following areas described in the General Plan should be defined as high hazard areas:

- zones 1/8 mile each side of active or potentially active faults;
- areas of tsunami hazard;
- areas on the Potential Seismic and Geologic Hazards Map designated as "High Hazard"; and
- areas designated as Zones IV, V, and VI on the Geotechnical Evaluation maps of the County's 1975 Seismic Safety Element

**Policy 15.1.14:** The County shall require wave action and erosion information to be submitted by a qualified oceanographer before an application is considered in areas identified as having a tsunami hazard; approval of development shall be conditioned on the recommendations of the oceanographic information.

**Policy 17.2.3:** The County shall develop a procedure to inform potential developers of the requirements for development in high and very high fire hazard areas. This information should be made available through the County Building Inspector.

**Policy 17.4.2:** Every building, structure and/or development shall be constructed to meet, at minimum, the requirements specified in Volume I of the current edition of the Uniform Building Code, Fire Hazards Policy 17.3.5, and Table 2 of this general plan. The chief of the fire agency having jurisdiction may recommend to the appropriate decision-making authority a variation of the general plan fire hazard policies and Table 2 (but not U.B.C. standards) for such development where, in his opinion, the fire safety of the County and adjoining and nearby properties and improvements is not materially impaired by such variation.

**Policy 17.4.6:** The County should discourage location of public facilities and aboveground utilities in high or very high fire hazard areas. When unavoidable, special precautions shall be taken to ensure an acceptable level of risk and uninterrupted operation of these facilities.

**Policy 18.1.1:** The County shall establish land use controls to reduce undesirable effects of hazardous chemicals.

**Policy 48.1.1:** The County shall increase the extent and frequency of health inspections in areas of food, milk and dairy operations, water systems, public housing, institutions, labor camps, swimming pools and recreation places as well as inspections related to hazardous substances, occupational health and noise hazards.

***North County LUP*:** The following hazards and hazardous materials policies provided in the North County LUP are applicable to the coastal portions of the Proposed Project:

**2.3.3.B.8:** Oil and other toxic substances shall not be allowed to enter or drain into the estuarine system. Oil spill and toxic substance discharge contingency plans shall be developed by the appropriate agencies of Monterey County to coordinate emergency procedures for clean-up operations of all foreseeable conditions. New development shall be permitted adjacent to estuarine areas only where such development does not increase the hazard of oil spill or toxic discharge into the estuaries.

**2.8.3.C.2:** Portions of a parcel(s) proposed for development which are characterized by a high to very high fire hazard shall only be developed if no less hazardous portion of the site is suitable for development and the development will not increase the threat of fire to the public.

***Monterey County Code:*** The County of Monterey Zoning Ordinance (Title 20) refers readers to the North County LUP for hazards/hazardous materials policies applicable to areas inside the Coastal Zone.

The County of Monterey Zoning Ordinance (Title 21) contains regulations for hazards and hazardous materials for areas outside the Coastal Zone. Title 21 does not identify any regulations specific to the portions of the Proposed Project located outside the Coastal Zone.

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

**Impact Discussion**

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

Construction and operation of the Proposed Project would require the use of hazardous materials, as described below.

***Construction***

The Proposed Project would not store hazardous materials on-site during construction other than typical construction equipment fluids, including gasoline, diesel, and lubricants for maintaining equipment. These materials would be handled and stored in compliance with all local, state, and federal regulations pertaining to hazardous materials.

The Proposed Project consists of water system consolidation and water system improvements, and would not require the routine storage, transport or disposal of hazardous materials; however, the construction of the Proposed Project would require the use and transport of materials commonly used in construction processes.

Construction activities would require the temporary use of hazardous substances such as fuel and other petroleum-based products for operation of construction equipment, as well as oil and solvents. As a result, the Proposed Project could result in the exposure of persons and/or the environment to an adverse environmental impact due to the accidental release of a hazardous material. However, the transportation, use, handling, and disposal of hazardous materials would be temporary and would coincide with the short-term project construction activities. Further, handling of hazardous materials would be limited to the quantities and concentrations set forth by the manufacturer and/or applicable regulations, and all hazardous materials would be securely stored in a construction staging area or similar designated location within the Project site. In addition, the handling transport, use, and disposal of hazardous materials would comply with all applicable federal, state, and local agencies and regulations, including DTSC; Occupational Safety and Health Administration ("OSHA"); Caltrans; and the Monterey County Health Department - Hazardous Materials Management Services.

Adherence to federal and state requirements relative to the transport and handling of hazardous materials would not create a significant hazard to the public or the environment through accidental conditions and would reduce any potential impacts associated with transporting, handling, and disposing of these materials.

The Proposed Project would develop and implement a Spill Prevention and Control Plan ("SPCP") (see **Mitigation Measure HAZ-1**) prior to construction to address any accidental spills and reduce potential impacts related to hazardous materials. The SPCP would identify applicable safety and clean-up procedures in the event of a spill, designate construction staging areas where hazardous materials may be stored, identify applicable emergency notification procedures, identify locations where spill kits will be maintained during construction, and identify dedicated storage areas where material may be stored.

**Mitigation Measure HAZ-1*:*** Prior to issuance of a grading permit, the contractor shall prepare a Hazardous Materials Spill Prevention and Control Plan ("SPCP") that addresses potential impacts associated with hazardous material usage during construction and operation. The plan shall, at a minimum, consist of the following:

- Identify applicable safety and clean-up procedures in the event of a spill.
- Designate construction staging areas where hazardous materials may be stored. All staging areas shall be located outside of sensitive biological areas. Staging areas shall be designed to contain runoff to prevent contaminants (e.g., oil, grease, fuel products, etc.) from draining towards receiving waters and sensitive areas.
- Identify appropriate emergency notification procedures and emergency contacts (e.g., County of Monterey Environmental Health, etc.).
- Designated location where a spill kit shall be maintained on-site throughout the Project.
- Identify dedicated storage areas where hazardous material may be stored and/or used during operation.

The SPCP shall be provided to the District for review and comment prior to the initiation of construction.

With **implementation of Mitigation Measure HAZ-1**, the Proposed Project **would result in a less-than-significant impact** related to upset and accident conditions involving the release of hazardous materials into the environment resulting from use, transport, or disposal of hazardous materials during construction.

***Operation***

Once operational, the Proposed Project may require the occasional routine use, transport, and disposal of hazardous materials associated with maintenance of the Proposed Project, likely limited to maintenance activities of Proposed Project components. A qualified professional would conduct regular maintenance and the Project would transport, use, and dispose of any hazardous materials for maintenance in compliance with all applicable manufacturers' regulations. While **Mitigation Measure HAZ-1** focuses primarily on construction related impacts, the SPCP would be implemented throughout operation. **Mitigation Measure HAZ-1** would ensure that areas where hazardous material may be stored and/or used during operation would be clearly shown on the SPCP. The other components of the Proposed Project would supply water to existing connections and would not result in 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. This represents a **less-than-significant impact with mitigation incorporated**.

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

The nearest active school to the Proposed Project is Ohlone Elementary School at 21 Bay Farms Road, located 0.15 miles to the south of the Transmission Main component of the Proposed Project within Salinas Road. The construction would require the use and transportation of limited quantities of hazardous or acutely hazardous materials (including solvents, fuels, lubricants, etc.) as part of the Proposed Project. All handling of these materials would occur in compliance with all applicable manufacturers' regulations, which would reduce the potential for emitting hazardous materials. In addition, the Proposed Project includes an SPCP pursuant to **Mitigation Measure HAZ-1** to ensure prompt response and cleanup of any incidental spills of hazardous materials. The existing Springfield Well No. 2, where Project improvements and staging would occur, is located at the former Moss Landing Middle School site; however, this school has been closed since 2005 and there are currently no plans to re-open it. The Proposed Project would not result in the generation of hazardous emissions in a one-quarter mile radius of a school. This represents a **less-than-significant impact with mitigation incorporated**.

*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?*

The Proposed Project is not listed on a hazardous materials site identified pursuant to Government Code Section 6596.2 (i.e., Cortese List), including the DTSC online EnviroStor database and SWRCB online GeoTracker database. While there are sites listed on GeoTracker in the vicinity of the Proposed Project (SWRCB, 2024b, 2024c, 2024d), the Proposed Project does not include work on these sites and would not result in a significant hazard to the public or the environment. **No impact** would occur.

*e. Would the project, for a project located in 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?*

The Proposed Project is not located in the vicinity of a private airstrip or an airport LUP, or within two (2) miles of a public airport or public use airport. The Proposed Project would not result in a safety hazard or exposure to excessive noise for people residing or working in the Proposed Project area as the nearest airport is four (4) miles northwest of the Proposed Project area. **No impact** would occur.

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

The *Monterey County 2021 Evacuation and Transportation Plan* does not identify specific designated evacuation routes because the plan considered evacuation routes as dynamic and would change based on the nature and location of an emergency (Monterey County, 2021). As a result, the County could utilize all local roadways within the Proposed Project area as evacuation routes during an emergency. While the Proposed Project would result in short-term lane or road closures, all such closures would be conducted in accordance with two (2) Traffic Control Plans reviewed and approved by Caltrans and the County as part of their respective encroachment permit processes. This would ensure that the proposed road or lane closures would not interfere with emergency response vehicles or area evacuation in an emergency. In addition, lane or road closures from the Proposed Project would be short-term overall and would not be located in a single place for long periods of time due to the linear nature of installing the distribution pipelines. The Proposed Project would not generate additional traffic once operational that could interfere with emergency response or evacuation. The Proposed Project would not impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan. This represents a **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?*

The Proposed Project is not located in a State Responsibility Area ("SRA") or a Local Responsibility Area ("LRA") Classified as a Very High Fire Hazard Severity Zone ("FHSZ") (Monterey County, 2025). However, the Proposed Project is partially located within a Moderate FHSZ in an LRA. Specifically, the Sunny Mesa Tank Site, Transmission Booster Pump Station Site, and segments of the Transmission Main along Salinas Road and Elkhorn Road are in a Moderate FHSZ. Additionally, the portion of the Proposed Project on Salinas Road and Elkhorn Road is located approximately 0.05 miles from a Moderate SRA FHSZ (CALFIRE, 2025). Within the Moderate FHSZ portion of the LRA, the Sunny Mesa Tank Site and Transmission Booster Pump Station Site would be located above ground; however, these sites would not constitute habitable structures and would not expose people or structures to a significant risk of loss, injury, or death from wildland fires. The Transmission Main along Salinas and Elkhorn Roads would be located underground and away from the risks of wildfires. The components of the Proposed Project located near this SRA FHSZ would be located within existing road ROWs and an undeveloped parcel. Land uses within and surrounding the Proposed Project area consist primarily of agricultural and residential uses. Construction activities would utilize mechanized equipment that has the potential to produce sparks. However, construction vehicles would be fitted with spark arrestors in compliance with all applicable state and local regulations, which would substantially reduce the risk of wildland fire as a result of construction. Once completed, the Proposed Project would be largely underground and would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk. In

addition, these components of the Proposed Project would not require continuous in-person staffing that could result in injury or death involving wildland fires.

Aside from the Sunny Mesa Tank Site and Transmission Booster Pump Station Site, the aboveground components of the Proposed Project are not susceptible to wildfire as they are located in agricultural areas and roadway ROWs. In addition, the Proposed Project does not include the construction of any new habitable structures. For these reasons, the Proposed Project would have a **less-than-significant impact** related to directly or indirectly exposing people or structures to wildland fire.

## 4.10. HYDROLOGY AND WATER QUALITY

### Environmental Setting

The Project area is located in the southern portion of the Pajaro Valley Subbasin of the Corralitos Basin (Basin 3-002.01). The Pajaro Valley groundwater subbasin is a portion of the Corralitos Basin, located in Santa Cruz and Monterey counties. The northern boundary of the subbasin is the northern boundary of the Pajaro Valley Water Management Agency ("PVWMA"). The eastern boundary of the subbasin is the San Andreas Fault, adjacent pre-Quaternary formations, and the Santa Cruz Mountains. The southern boundary of the subbasin is comprised of the pre-Quaternary formations and the southern boundary of the PVWMA. The subbasin is bounded on the west by Monterey Bay (DWR, 2016). The Aromas Red Sands aquifer is the principal aquifer and main producing aquifer of the Corralitos Basin (PVWMA, 2021). The Proposed Project area is within the Pajaro watershed and Alisal-Elkhorn Sloughs watershed (Monterey County, 2025).

#### *Surface Water*

The Proposed Project area is in proximity to the Bennett Slough, Elkhorn Slough, and McClusky Slough. The North of Moss Landing components, Bluff/Jensen components, Springfield components, and service connections are geographically situated between the Monterey Bay on the west and the Elkhorn Slough on the east. The Project area is within close proximity of Elkhorn Slough. Elkhorn Slough is a tidal marsh and runs south of the Project area; however, the Project proposes no development in the riverbed or near the river. Elkhorn Slough meanders seven (7) miles southward, then westward, and then joins the Monterey Bay. The Proposed Project is in the vicinity of the McClusky Slough. McClusky Slough is a freshwater wetland system that drains into Elkhorn Slough at Moss Landing Harbor (Elkhorn Slough Foundation, 1999). In addition, the Pajaro River is located approximately 1,160 feet from the District's offices where the Project would install the Iron and Manganese Treatment System.

#### *Groundwater*

The Proposed Project area is located within the Corralitos – Pajaro Valley Groundwater Subbasin (Basin 3-002.01) (DWR, 2023). The Corralitos - Pajaro Valley Groundwater Subbasin is completely dependent on local groundwater, surface water, and recycled water. Decades of groundwater overdraft lowered water levels throughout the Corralitos – Pajaro Valley Groundwater Subbasin, and eventually caused seawater to intrude into freshwater aquifers. PVWMA is a state-chartered special purpose district formed under state law pursuant to the Pajaro Valley Water Management Agency Act. PVWMA was formed to efficiently and economically manage existing and supplemental water supplies to prevent further increase in, and to accomplish continuing reduction of long-term overdraft and to provide and ensure sufficient water supplies for present and anticipated needs within its boundaries. PVWMA has the authority to adopt ordinances to conserve local groundwater supplies that all public and private

water purveyors within the PVWMA's boundaries must adhere to. The PVWMA's jurisdiction is comprised of portions of three (3) counties consisting of Santa Cruz, Monterey, and San Benito Counties.

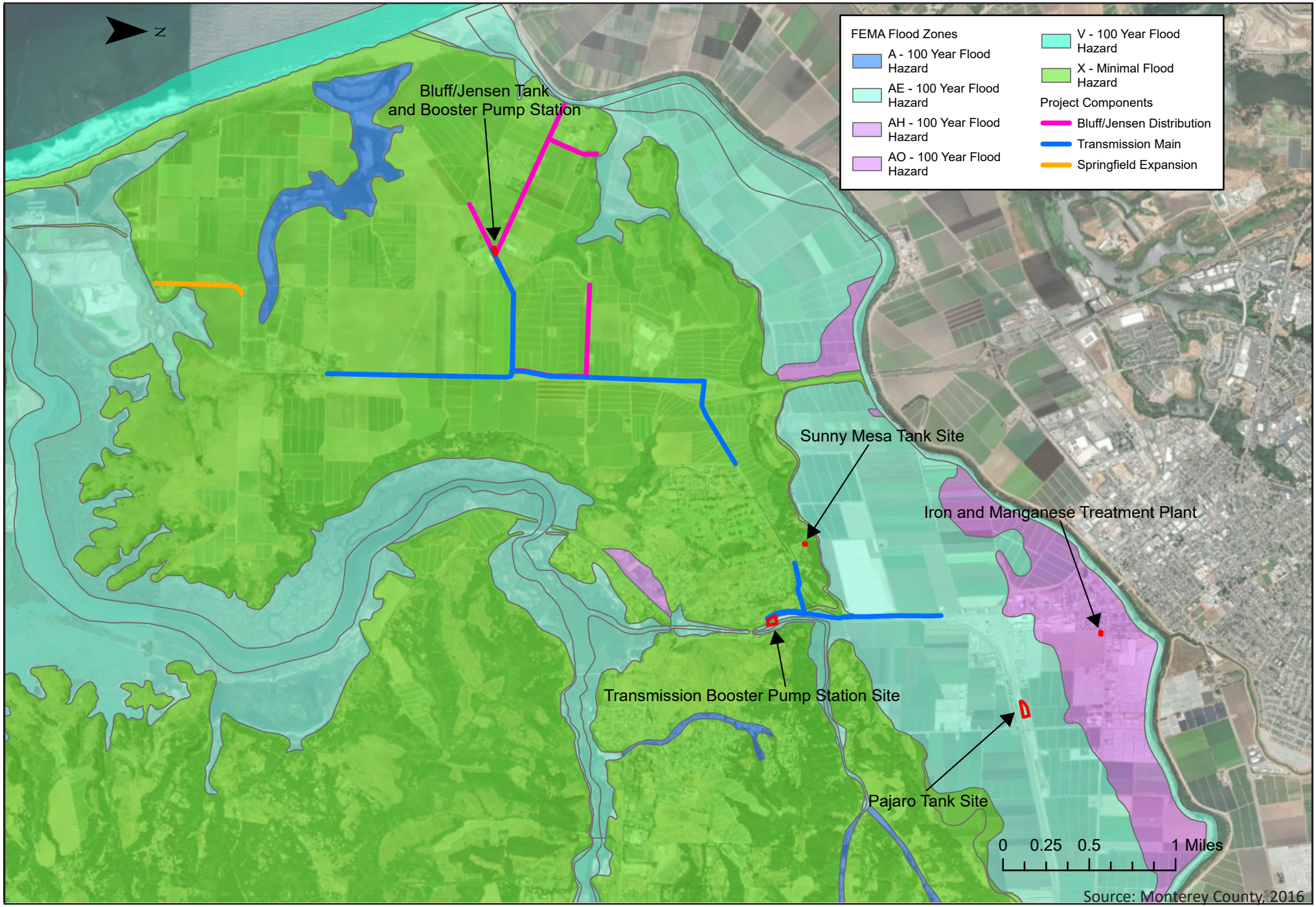
The 2014 California Sustainable Groundwater Management Act requires that medium and high-priority groundwater basins and subbasins develop Groundwater Sustainability Plans ("GSP") that outline how groundwater sustainability will be maintained for 50 years. PVWMA is the Groundwater Sustainability Agency ("GSA") for the Pajaro Valley Groundwater Subbasin and received approval for their Alternative Groundwater Sustainability Plan ("AGSP") under the Sustainable Groundwater Management Act (DWR, 2023; DWR, 2019). PVWMA must resubmit the AGSP to the DWR every five (5) years to allow the DWR to assess progress in achieving the sustainability goal within the basin and recommend corrective action to address any deficiencies. PVWMA last updated the AGSP in December 2021 and DWR granted their most recent approval of the AGSP on June 27, 2024. The AGSP identifies potential management actions and projects that ensure the sustainable use of groundwater, including drought resiliency actions.

The hydrological characteristics of the area have been outlined by MNS Engineers, Inc. ("MNS") in a Well Impact Study for the Proposed Project (MNS, 2025). A copy of the Well Impact Study is provided as **Appendix E.** Pertinent background information is summarized below and in the following sections. The aquifer system in the study area is characterized by Quaternary alluvial deposits overlying the Pleistocene Aromas Formation, which in turn rests on the Pliocene Purisima Formation. The Aromas Formation constitutes the principal water-bearing unit tapped by Pajaro Valley municipal wells, including Pajaro Wells No. 1 and No. 2. The Aromas Formation is subdivided into an upper sandy aquifer, a discontinuous confining clay/silty clay unit, and a lower sandy aquifer. The formation consists of friable, quartzose, reddish-brown sands with fluvial and eolian facies; gravel lenses are common in fluvial sections, with thickness ranging from approximately 100 feet along the basin margins to 600 to 800 feet in the center of the Valley and near the mouth of the Pajaro River (**Appendix E**). The Pajaro Valley Water Basin Management Plan Update (2014) describes the Aromas Formation as semi-confined to confined in the lower basin and unconfined in recharge areas. Beneath the Aromas Formation, the Purisima Formation comprises marine mudstone, siltstone, and fine-grained sandstone. It has relatively low permeability and typically acts as a semi-confining unit. Flow within the basin is predominantly downward from the alluvium to the upper Aromas, and then to the lower Aromas, with some leakage to the Purisima.

***Flooding***

FEMA publishes maps of flooding hazard areas in the U.S. The Proposed Project area covers multiple flood hazard zones designated by FEMA, including areas with special flood hazards and areas with minimal flood hazards.

**Table 16** provides the Proposed Project components and their respective flood hazard zones. The flood hazard zones in the Project area are depicted in **Figure 12**.




Title:

# FEMA Flood Map

| | |
|---|---|
| Date | 7/1/2025 |
| Scale | N/A |
| Project | 2023.47 |


Monterey | San Jose
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Figure
12

**Table 16**
**Project Components and FEMA Flood Hazard Zones**

| Project Component | FEMA Flood Hazard Zone |
|---|---|
| Iron and Manganese Treatment System | Zone AO |
| Transmission Booster Pump Station | Zone AE<br>Zone X (Area of Minimal Flood Hazard) |
| Transmission Booster Pump Station Supply Pipeline | Zone AE |
| PWS to SMWS Transmission Main | Zone X (0.2% Annual Chance Flood Hazard)<br>Zone X (Area of Minimal Flood Hazard) |
| Springfield Transmission Main | Zone X (Area of Minimal Flood Hazard) |
| Bluff/Jensen Transmission Main | Zone X (Area of Minimal Flood Hazard) |
| SMWS to NOML/Bluff/Jensen Split Transmission Main | Zone X (Area of Minimal Flood Hazard) |
| NOML Distribution System Piping | Zone X (Area of Minimal Flood Hazard) |
| SWS Distribution System Expansion Piping | Zone A<br>Zone X (Area of Minimal Flood Hazard) |
| Bluff/Jensen Tank and Pump Station site | Zone X (Area of Minimal Flood Hazard) |

Source: Monterey County, 2025

FEMA defines the flood zones within the Proposed Project area as follows:

- Zone A: An area with a one (1) percent chance of annual flooding and a 26 percent chance of flooding over the life of a 30-year mortgage. No depths or base flood elevations are shown within this zone as detailed flooding analyses have not been conducted.
- Zone AE: An area with a one (1) percent chance of annual flooding and a 26 percent chance of flooding over the life of a 30-year mortgage. Detailed base flood elevation information is available for parcels within Zone AE, compared to Zone A.
- Zone AO: An area with a one (1) percent chance of annual flooding and a 26 percent chance of flooding over the life of a 30-year mortgage. Detailed average flood depth information is available for parcels within Zone AO, compared to Zone A.
- Zone X – Shaded (0.2% Annual Chance Flood Hazard): An area of moderate flood hazard, where the annual flood risk is between 0.2 percent and one (1) percent.

Zone X – Unshaded (Area of Minimal Flood Hazard): An area with a less than 0.2 percent chance of annual flooding. Outside the 500-year flood area and protected from 100-year flood by levee.

***Tsunami/Seiche***

Portions of the Proposed Project are within the Coastal Zone. The Proposed Project in the Springfield area on Struve Road located near the Bennett Slough and on Springfield Road located near the McClusky Slough are within state tsunami hazard areas.

***PSM/CSD Well System***

The methodology and conclusions of MNS' Well Impact Study can be found in (**Appendix E**). The following summarizes the well system, proposed improvements, and modeling effort. The USGS Integrated Hydrologic Model provides hydraulic properties for the Upper Aromas, the Aromas confining unit, and the Lower Aromas. The drilling reports for Pajaro Wells No. 1 and No. 2 (included as Appendix B in **Appendix E**) indicate that the screened intervals for both wells are likely (though not conclusively) within the Aromas Formation. Therefore, MNS considered the full range of aquifer properties for the Aromas Formation in their study of the potential impacts from the shift in groundwater pumping under

the Proposed Project in the Well Impact Study (See **Appendix E**). The Well Study reported the following results:

***Pajaro Well No. 1*:** Pajaro Well No. 1 was drilled and constructed in May 1986. The well borehole was drilled to a depth of 600 ft, and the well was constructed with a 14-inch diameter casing to a depth of 600 ft, with screen intervals from 430 to 455 feet below ground surface ("bgs") and 470 to 595 feet bgs. A sanitary seal was installed from the surface to a depth of 415 feet bgs. The aquifer material adjacent to the screen was reported on the Drillers Report to be fine brown sand from 375 to 455 feet bgs, brown clay from 455 to 476 feet bgs, fine brown sand with small clay from 476 to 580 feet bgs, hard shale from 580 to 581 feet bgs, and sand from 581 to 600 feet bgs. The District reports Pajaro Well No. 1 has a pumping capacity of 800 gpm. MNS and the District conducted an eight (8)-hour pump test on September 29, 2025 as described in **Appendix E**. The maximum drawdown during testing was approximately 20 feet (equivalent to a pumping water level of approximately 55 feet bgs), which is approximately 17.9 gpm per foot of drawdown.

***Pajaro Well No. 2*:** Pajaro Well No. 2 was drilled in April 1986, with construction completed in May 1986. The well borehole was drilled to a depth of 1,200 ft, and the well was constructed with a 14-inch diameter casing to a depth of 600 ft. The well has a screen interval from 450 to 595 feet bgs, and a sanitary seal from the surface to a depth of 420 feet bgs. The aquifer material reported in the Drillers Reports is brown sand from 290 to 600 feet bgs. Pajaro Well No. 2 is reported to have a pumping capacity of 1,600 gpm. MNS and the District conducted an eight (8)-hour pump test on October 2, 2025 as described in **Appendix E**. The maximum drawdown during testing was approximately 37.1 feet (equivalent to a pumping water level of approximately 73.6 feet bgs), which is approximately 37.7 gpm per foot of drawdown.

***Site Specific Aquifer Coefficients*:** MNS analyzed water-level data from both pumping tests using the AQuifer TEst SOLVer application ("AQTESOLV") using the Hantush–Jacob (1955) analytical solution for a leaky confined aquifer.[12] MNS subsequently verified and calibrated the site-specific aquifer coefficients derived from AQTESOLV using the FWD:SOLV program. FWD:SOLV is a predictive modeling tool used to simulate drawdown in confined and unconfined aquifers responding to one (1) or more pumping wells. The Theis (1935) forward-solution model was applied, assuming an isotropic, single-porosity, nonleaky aquifer. These assumptions tend to yield conservative results, with the Theis model typically predicting larger and deeper cones of depression than those observed in leaky systems such as the Aromas Formation.

MNS used FWD:SOLV to create predicted water level drawdown curves and cone of depression contour maps, illustrating the radius of the area with a hydrologic impact (water-level drawdown) based on the eight (8)-hour pumping test at each well. MNS compared the simulated results to observed drawdown data collected at the pumping and monitoring wells during field testing. The time duration for the cone of depression contour maps was set to coincide with the observed time during the pump test, where the water level in the monitoring well reached its lowest recorded value. A summary of the site-specific aquifer coefficients determined from these analyses is presented in **Table 17**.

[12] Accounts for partial penetration since neither Pajaro Well No. 1 or Pajaro Well No. 2 fully penetrate the Aromas Formation.

**Table 17**
**Summary of the Site-Specific Aquifer Coefficients**

| Well | Transmissivity (T) | Storativity (S) | Aquifer Model | Solution |
|---|---|---|---|---|
| Pajaro Well No. 1 | 7,810 $ft^2$/day | 0.00015 | Leaky | Huntush-Jacob 1955 |
| Pajaro Well No. 2 | 12,180 $ft^2$/day | 0.00055 | Leaky | Huntush-Jacob 1955 |

Source: MNS, 2025 (**Appendix E**)

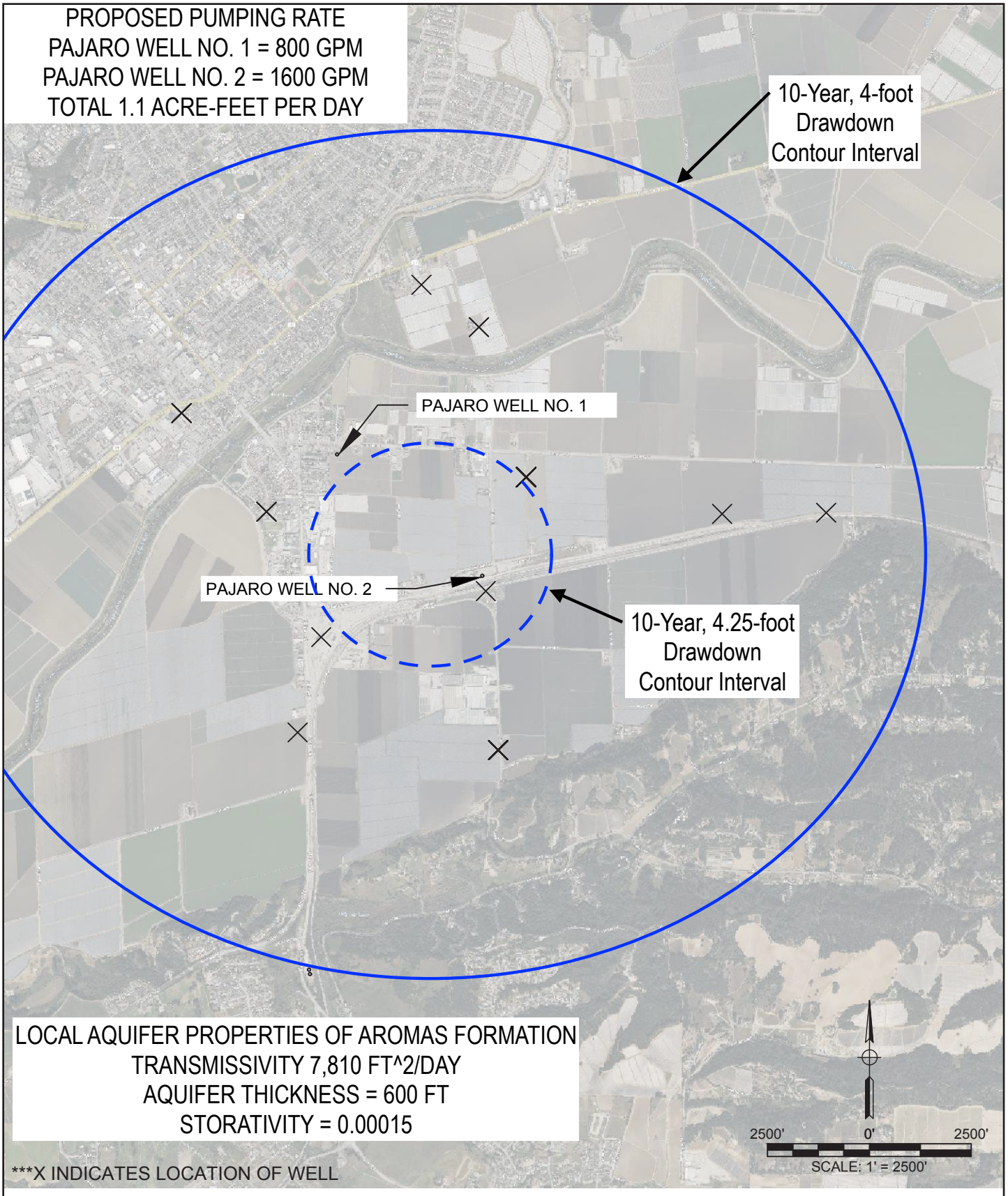
***Proposed Pumping Plan*:** The Proposed Project would primarily be supplied water from a total of three (3) sources, comprised of Pajaro Wells No. 1 and No. 2 and Springfield Well No. 2. Additionally, SMWS Wells No. 1 and No. 2 would be retained as standby sources of water for the Proposed Project, for an overall total of five (5) water sources. The Proposed Project's pumping plan is to split the total annual extraction of 400 ac-ft/yr currently supplied by SMWS Wells No. 1 and No. 2, small water systems, and private wells between Pajaro Wells No. 1 and No. 2. Pajaro Wells No. 1 and No. 2 would operate on alternating days, with each well operating only long enough to meet the average daily demand for the consolidated water system. Pajaro Well No. 1 and Pajaro Well No. 2 would each extract water every other day for approximately 7.5 hours and 3.7 hours, respectively, based on their respective maximum design flow rates of 800 and 1600 gpm.

***Impact of Proposed Pumping Plan*:** MNS created drawdown and recovery curves for a two (2)-day pump cycle for both wells using FWD:SOLV. MNS used FWD:SOLV to develop cone of depression contour maps to show the radius of the area with a hydrologic impact (water-level drawdown) based on the proposed pumping plan for one (1)-year and 10-year periods for both sets of aquifer coefficients (detailed results are included as Appendix D in **Appendix E**). The transmissivity value of 7,810 $ft^2$/day and the storativity value of 0.00015 resulted in a more conservative, deeper cone of depression[13]. **Figure 13** shows the contour lines from this cone of depression and the locations of nearby registered wells.

The pumping impact assessment indicates that after 10 years of the proposed pumping, the static water-level drawdown in the vicinity of Pajaro Well No. 1 and Pajaro Well No. 2, including nearby wells, is expected to be less than five (5) ft. Similar to Pajaro Well No. 1 and Pajaro Well No. 2, the neighboring wells are assumed to be screened in the Aromas Formation and likely have over 100 feet of available drawdown to the top of their casing perforations.

A private domestic well, WCR2019-012003, is located approximately 600 feet to the southeast of Pajaro Well No. 2, and is the closest well to either Pajaro Well No. 1 or Pajaro Well No. 2. While Pajaro Well No. 2 is pumping, the water level in this well is likely to be lowered by approximately 12 feet from its static water level. Once Pajaro Well No. 2 stops operating, the water level in this domestic well is expected to recover to approximately 95 percent of the maximum drawdown by the following day. The temporary impact on this private domestic well is similar for both the current operations and the proposed operations. The proposed pumping plan will reduce the frequency of this impact from daily under existing operations to every other day under Proposed Project conditions. After 10 years of the proposed pumping, the drawdown of the static water level in this domestic well is projected to be less than five (5) feet (**Appendix E**).

[13] ***Aquifer Coefficients*** The aquifer transmissivity (T) generally describes the ability of the penetrated aquifer to supply water to a pumping well. The T value is dependent on the hydraulic conductivity (K) and the aquifer thickness (b), and is defined by the relationship T = K × b. Transmissivity is expressed in terms of gallons per day per foot ("gpd/ft") or square feet per day ("$ft^2$/day"). Hydraulic conductivity is expressed in units of gallons per day per square foot ("gpd/$ft^2$") or feet per day ("ft/day").




Source: MNS Engineers, October 2025

Title: Well Impact Map

Date 10/15/2025
Scale N/A
Project 2023.47

Monterey | San Jose
Denise Duffy and Associates, Inc.
Environmental Consultants Resource Planners
947 Cass Street, Suite 5
Monterey, CA 93940
(831) 373-4341

Figure 13

**Regulatory Environment**

***Federal***

***National Flood Insurance Program*:** FEMA established the National Flood Insurance Program ("NFIP") based on the directives of Executive Order 11988 in May 1977. The NFIP is intended to reduce flooding on private and public properties. The program provides subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the program, FEMA publishes Flood Insurance Rate Maps ("FIRM") that identify Special Flood Hazard Areas ("SFHAs"). An SFHA is an area that would be inundated by the one (1) percent annual chance flood, which is also referred to as the base flood or 100-year flood.

***Porter-Cologne Water Quality Act*:** The Porter-Cologne Act delegates authority to the SWRCB to establish regional water quality control boards. The Central Coast Area RWQCB has authority to use planning, permitting, and enforcement to protect beneficial uses of water resources in the project region. Under the Porter-Cologne Water Quality Control Act (California Water Code Sections 13000-14290), the RWQCB is authorized to regulate the discharge of waste that could affect the quality of the state's waters, including projects that do not require a federal permit through the USACE. To meet RWQCB 401 Certification standards, all hydrologic issues related to a project must be addressed, including the following:

- Wetlands
- Watershed hydrograph modification
- Proposed creek or riverine related modifications
- Long-term post-construction water quality

Any construction or demolition activity that results in land disturbance equal to or greater than one (1) acre must comply with the Construction General Permit ("CGP"), administered by the SWRCB. The CGP requires the installation and maintenance of BMPs to protect water quality until the site is stabilized. The Proposed Project would disturb more than one (1) acre of soil and is required to obtain coverage under the RWQCB National Pollutant Discharge Elimination System ("NPDES") General Storm Water Permit.

***Safe Drinking Water Act*:** Congress passed the Safe Drinking Water Act in 1974 for the purpose of regulating drinking water and protecting public health. The Safe Drinking Water Act is enforced by the USEPA by setting national-health based standards for drinking water to protect against natural and human contaminants with the potential to be found in drinking water.

***State***

***Statewide Construction General Permit*:** The SWRCB has implemented an NPDES CGP for the State of California. For projects disturbing one (1) acre or more, a Notice of Intent ("NOI") and Stormwater Pollution Prevention Plan ("SWPPP") must be prepared by a qualified professional prior to commencement of construction. The CGP includes requirements for training, inspection, record keeping, and for projects of certain risk levels, monitoring. The general purpose of the requirements is to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

***California Code Regulation Title 23 and Section 2924*:** Title 23 and Section 2924 define the Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment

Systems ("OWTSs") adopted by the SWRCB in 2012. This regulation sets standards for OWTS at all phases of the system's lifecycle from construction to demolition. Title 23 also applies to OWTS that pool or discharge waste across the ground, and that may make groundwater or surface water undrinkable. State regional control boards are responsible for incorporating OWTS Policy standards into their water quality control plans in 12 months of the effective date of the OWTS Policy. Additionally, implementation of said policy falls under the State Water Board, regional water quality boards, and local agencies (i.e., Monterey County).

***Local***

***2010 Monterey County General Plan*:** The following policies from the 2010 Monterey County General Plan would be applicable to the inland portions of the Proposed Project.

**Policy S-2.3** All new development, including filling, grading, and construction, in designated 100-year floodplain areas shall conform to the guidelines of FEMA and the National Flood Insurance Program and ordinances established by the County Board of Supervisors. Except for the construction of structures, Routine and Ongoing Agricultural Activities shall be exempt from this policy.

**Policy S-2.6** Drainage and flood control improvements needed to mitigate flood hazard impacts associated with potential development in the 100-year floodplain shall be determined prior to approval of new development and shall be constructed concurrently with the development.

**Policy S-3.1** Post-development, off-site peak flow drainage from the area being developed shall not be greater than pre-development peak flow drainage. On-site improvements or other methods for storm water detention shall be required to maintain post-development, off-site, peak flows at no greater than predevelopment levels, where appropriate, as determined by the Monterey County Water Resources Agency.

**Policy S-3.2** Best Management Practices to protect groundwater and surface water quality shall be incorporated into all development.

**Policy S-3.5** Runoff Performance Standards that result in an array of site planning and design techniques to reduce storm flows plus capture and recharge runoff shall be developed and implemented, where appropriate, as determined by the Monterey County Water Resources Agency.

***North County Area Plan*:** The following policy provided in the North County Area Plan is applicable to the inland portions of the Proposed Project:

**Policy NC-5.2** Water development projects that can offer a viable water supply to water-deficient areas in North County shall be a high priority.

***1982 Monterey County General Plan*:** The following policies from the 1982 Monterey County General Plan would be applicable to the coastal portions of the Proposed Project.

**Policy 16.2.1** The County's primary means of minimizing risk from flood hazards shall be through land use planning and the avoidance of incompatible structural development in flood prone areas.

**Policy 16.2.3** All new development for which a discretionary permit is required, including filling, grading, and construction, shall be prohibited within 200 feet of the riverbank or within the 100-year floodway except as permitted by ordinance. No new development,

including structural flood control projects, shall be allowed within the riparian corridor. However, improvements to existing dikes and levees shall be allowed if riparian vegetation damage can be minimized and at least an equivalent amount and quality of replacement is planted. In addition, exceptions may be made for carefully sited recreational trails.

**Policy 16.2.4** All new development, including filling, grading, and construction, within designated 100-year floodplain areas shall conform to the guidelines of the National Flood Insurance Program and policies established by the County Board of Supervisors, with the advice of the Monterey County Flood Control and Water Conservation District.

**Policy 16.2.5** All new development, including filling, grading, and construction, proposed within designated floodplains shall require submission of a written assessment prepared by a qualified hydrologist/engineer on whether the development will significantly contribute to the existing flood hazard. Development shall be conditioned on receiving approval of this assessment by the County Flood Control and Water Conservation District.

***North County LUP*:** The following hydrology and water quality policies provided in the North County LUP are applicable to the coastal portions of the Proposed Project:

**2.5.3.A.1:** The County's Policy shall be to protect groundwater supplies for coastal priority agricultural uses with emphasis on agricultural lands located in areas designated in the plan for exclusive agricultural use.

**2.5.3.A.3:** The County shall regulate construction of new wells or intensification of use of existing water supplies by permit. Applications shall be regulated to prevent adverse individual and cumulative impacts upon groundwater resources.

**2.5.3.B.6:** The problem of saltwater intrusion should be studied, and reasonable measures undertaken to retard or halt its advance.

***Monterey County Code:*** The County of Monterey Zoning Ordinance (Title 20) contains regulations for hydrology and water quality for areas inside the Coastal Zone. There are no regulations in Title 20 that would be relevant to the portions of the Proposed Project located inside of the Coastal Zone.

The County of Monterey Zoning Ordinance (Title 21) contains regulations for hydrology and water quality for areas outside the Coastal Zone. There are no regulations in Title 21 that would be relevant to the portions of the Proposed Project located outside of the Coastal Zone.

| **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 groundwater quality? | ☐ | ■ | ☐ | ☐ |
| b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | ☐ | ☐ | ■ | ☐ |

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: | | | | |
| i) result in substantial erosion or siltation on- or off-site? | ☐ | ☐ | ■ | ☐ |
| ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite? | ☐ | ☐ | ■ | ☐ |
| iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | ☐ | ☐ | ■ | ☐ |
| iv) impede or redirect flood flows? | ☐ | ☐ | ■ | ☐ |
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | ☐ | ■ | ☐ | ☐ |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ■ | ☐ | ☐ |

**Impact Discussion**

*a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?*

The Proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. The Proposed Project would consolidate multiple water systems, construct water system infrastructure, and would address issues related to water quality, water supply reliability, and vulnerabilities to failure. The Proposed Project's potential to result in impacts related to compliance with local and state water quality control and groundwater management plans during construction and operation is discussed below.

***Construction***

Construction of the Proposed Project would consist of substantial grading and excavation, which could result in temporary water quality impacts. Additional water quality impacts could come from the use of hazardous materials (e.g., diesel fuel, gasoline, lubricants, oils, hydraulic fluids, etc.). To minimize construction generated water quality impacts the Proposed Project would implement standard construction BMPs (e.g., control/minimize grading, re-vegetate disturbed areas). Additionally, the Project would address potential water quality impacts associated with accidental spills through implementation of **Mitigation Measure HAZ-1** (spill prevention plan). Moreover, the Proposed Project would comply with the requirements of the NPDES General Construction Permit to manage construction and post construction runoff. As part of this process, the Proposed Project would submit a NOI with the

SWRCB and prepare a SWPPP. The Proposed Project would have a **less-than-significant impact** related to violating water quality standards or waste discharge requirements or degrading surface or groundwater quality during construction **with mitigation incorporated**.

***Operation***

The Proposed Project would address issues related to water quality, water supply reliability, and vulnerabilities to failure. The Proposed Project would produce potable water that meets state standards for pollutant MCLs and would not violate any water quality standards, including those set forth by the Safe Drinking Water Act.

The Proposed Project would result in an addition of approximately 12,150 sf of impervious surfaces compared to existing conditions, as the Iron and Manganese Treatment System, Transmission Booster Pump Station Site, and the Bluff/Jensen Tank and Pump Station site would include new paving. This increase in impervious surfaces could potentially generate additional stormwater runoff that would infiltrate groundwater and/or surface water in the area. The Proposed Project would also include improvements to the stormwater drainage system, including new storm drain cleanouts, storm drains, an access manhole, and connections to existing site and local drainage infrastructure at the Iron and Manganese Treatment site. Other Project components would also include drainage improvements to manage onsite stormwater flows. Therefore, water runoff generated at each of the Proposed Project sites would be transferred to existing drainage infrastructure and would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. The Proposed Project would result in a **less-than-significant impact** related to violating water quality standards or waste discharge requirements or degrading surface or groundwater quality during operation.

*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?*

The Proposed Project would not substantially decrease groundwater supplies or substantially interfere with groundwater recharge such that it would impede sustainable groundwater management of the basin. The Project area lies within the southern portion of the Pajaro Valley Groundwater Subbasin (Basin 3-002.01), managed by the PVWMA. The PVWMA serves as the GSA under the Sustainable Groundwater Management Act ("SGMA") and implements its approved AGSP, which was most recently updated in December 2021 and approved by the California DWR on June 27, 2024.

The Proposed Project would result in a minor increase in impervious surfaces of approximately 12,150 sf of impervious surfaces associated with the Transmission Booster Pump Station Site, Iron and Manganese Treatment System site, and the Bluff/Jensen Tank and Pump Station site. While this increase in impervious surfaces would slightly reduce localized groundwater infiltration, the Project includes stormwater drainage and retention features that would direct stormwater to pervious areas thereby mitigating potential groundwater recharge loss and minimizing any potential reduction in groundwater recharge from the minor increase in impervious surfaces as a result of the Project.

The Project would also not substantially interfere with groundwater recharge such that it would impede sustainable groundwater management of the basin. The Proposed Project consists of the consolidation of existing water systems and does not add new service connections for potable water. As a result, any groundwater pumped as a result of the Project would be offset by the reduction of pumping for the individual water systems and private wells as identified in **Section 1.5** of this document. As a result, the Proposed Project would not result in a net increase in basin-wide groundwater demand.

The Proposed Project would draw groundwater from the Pajaro Subbasin via three (3) sources, comprised of Pajaro Wells No. 1 and No. 2 and Springfield Well No. 2. The Proposed Project would have a peaking hour demand of approximately 872 gpm and a maximum pumping capacity of 2,500 gpm. The Proposed Project is a water system consolidation to serve existing connections and does not include additional water service connections.

The Proposed Project would shift the location of groundwater pumping to an inland area in the vicinity of the community of the Pajaro area. The daily inland pumping under the Proposed Project would be approximately 1.1 acre feet per day, drawn alternately each day from Pajaro Well No. 1 and Pajaro Well No. 2. The Proposed Project would replace existing water systems and wells; therefore, any groundwater pumped from the Pajaro Subbasin as part of the Project would be offset by shutting down the individual water systems and private wells. As a result, the Project would not substantially decrease area groundwater supplies in the Pajaro Subbasin. The potential for localized impact from increased intensity of groundwater pumping at the interconnected cone of depression between Pajaro Wells No. 1 and No. 2 was evaluated by MNS hydrologists and provided to the PVWMA. MNS performed hydrological monitoring to address potential impacts from the shift in groundwater pumping to this inland area as well as consider the localized impact on area wells (**Appendix E**).[14]

As discussed above, the pumping impact assessment reported on the static water-level drawdown in the vicinity of Pajaro Well No. 1 and Pajaro Well No. 2, including nearby wells, after 10 years of the pumping under Project conditions. One (1) private domestic well is located about 600 feet southeast of Pajaro Well No. 2 (**Figure 13**). Based on the modeling conducted in **Appendix E**, the water level at this nearby well is anticipated to lower by approximately 12 feet from its static water level when Pajaro Well No. 2 is operating. However, given that Pajaro Wells No. 1 and No. 2 would operate on a rotating basis (every other day), the water level at this well would recover to approximately 95 percent of the maximum drawdown by the following day. Given that Pajaro Well No. 2 operates on a daily basis under existing conditions, this impact on local groundwater levels would be roughly equivalent to existing operation. In addition, modeling shows that after 10 years of pumping under the Project, the drawdown of the static water level in this domestic well is projected to be less than five (5) feet in this inland area.

The Proposed Project would not substantially decrease groundwater supplies such that the Project would impede sustainable groundwater management of the basin. As noted, the Project relocates groundwater extraction inland—away from coastal areas most affected by seawater intrusion. PVWMA has an established Basin Management Plan ("BMP") and supplemental programs aimed at reducing long-term overdraft, halting seawater intrusion, improving managed recharge and implementing supplemental supply sources. The shift in pumping under the Proposed Project away from coastal areas subject to seawater intrusion is considered consistent with the basin's overall management regime and would not substantially decrease groundwater supplies based upon an increase in consumptive overall groundwater demand, nor does it substantially reduce groundwater recharge or impede sustainable groundwater management. This shift directly supports PVWMA's BMP (2014) and AGSP goals to halt seawater intrusion, reduce overdraft, and manage groundwater levels through inland redistribution and managed recharge.

As demonstrated above, and presented in **Appendix E**, modeling conducted for the Proposed Project indicates that groundwater level drawdown in the vicinity of Pajaro Wells No. 1 and No. 2 would be less than approximately five (5) feet after ten (10) years of operation, with short-term drawdown at the nearest domestic well (located 600 feet away) recovering to 95 percent of its static water level between

[14] Impacts from the shift in pumping due to Springfield Well No.2 replacing Springfield Well No. 1 were evaluated as part of the IS/MND for the Springfield Water System Improvements Project (District, 2020) and are not discussed in this analysis.

pumping cycles. Because the Proposed Project relocates groundwater extraction inland—away from coastal areas most affected by seawater intrusion—and does not increase overall groundwater demand, it would not substantially deplete groundwater supplies or interfere with groundwater recharge. The Project is also consistent with BMPs and Agricultural Groundwater Sustainability Plan policies, which promote inland redistribution of pumping and sustainable basin management. Therefore, the Proposed Project's impacts on groundwater supplies and recharge would be **less-than-significant** and the Project would not impede sustainable groundwater management of the Pajaro Valley Basin.

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, ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or-off site, iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or iv) impede or redirect flood flows?*

The Proposed Project would require excavation and other ground disturbing activities to install and construct Project components. These ground disturbing activities for both the aboveground and underground components of the Project could result in erosion on-site, which could potentially alter the existing drainage patterns of the Project area. The Proposed Project would comply with the requirements of the SWPPP during construction as a requirement of the NPDES, which would ensure that construction impacts are less-than-significant. However, the Proposed Project includes restoration of all areas disturbed for installation of underground components to pre-project conditions. Restoration of all disturbed areas would ensure that these components would not result in substantial erosion or siltation, increase the rate of surface runoff and lead to flooding and/or exceed stormwater facilities, or impede or redirect flood flows once the Project is operational. The aboveground components of the Proposed Project would result in the addition of approximately 12,150 sf of impervious surfaces compared to existing conditions. This increase in impervious surfaces could result in increased surface water runoff or redirection of flood flows. A review of FEMA NFIP flood maps show that the aboveground components are located in Zone AE and Zone X (Transmission Booster Pump Station) and Zone X (Bluff/Jensen Tank and Pump Station site). The new facilities added as part of the Transmission Booster Pump Station would be elevated above the base flood level. While approximately 2,000 sf of new impervious surfaces would be installed at the Iron and Manganese Treatment System site, this site is located on a mostly developed site (the District's offices at 136 San Juan Road), includes drainage and floodproofing improvements, and would therefore not result in additional flood impact compared to existing conditions as it includes new stormwater infrastructure to manage changes in flood flows. For these reasons, the Proposed Project would have a **less-than-significant impact** concerning the alteration of drainage patterns, substantial erosion or siltation, or the contribution to stormwater runoff that would exceed existing or planned drainage systems.

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

Portions of the Proposed Project are within the Coastal Zone. The portions of the Proposed Project in the Springfield area on Struve Road located near the Bennett Slough and on Springfield Road located near the McClusky Slough are within state tsunami hazard areas. In addition, although the Project is not mapped in a seiche zone, seiches could occur within the Proposed Project area due to bodies of surface water in nearby sloughs. The components of the Proposed Project within the tsunami hazard zones would be located underground once operational. Inundation of these areas due to a tsunami would not

involve the risk of pollutants. During construction, a tsunami event in active construction areas could potentially result in the release of hazardous materials, such as solvents, paints, fuels, and lubricants associated with construction activities. However, implementation of a spill plan consistent with **Mitigation Measure HAZ-1** would reduce potential impacts from tsunami inundation to a less than significant level. As a result, the Proposed Project would have a **less-than-significant impact** related to the risk or release of pollutants due to inundation from a tsunami or seiche **with incorporation of mitigation**.

The Proposed Project has components located within various flood hazard zones as depicted in **Table 16**. The pipeline components of the Proposed Project would be located belowground and would not be impacted by flood hazards. The Transmission Booster Pump Station is located within Zone AE and Zone X (unshaded). However, the Project components located on this site are sited to avoid Zone AE and are not subject to significant flood hazards (Monterey County, 2025). The Bluff/Jensen Tank and Pump Station site is located within Zone X (unshaded) and is not subject to significant flood hazards (Monterey County, 2025). The Iron and Manganese Treatment System at the existing Pajaro Well No. 1 site is located in in Zone AO where flood hazards could occur. As a result, the Proposed Project could result in the risk of pollutant release due to inundation from flooding. However, implementation of a spill plan consistent with **Mitigation Measure HAZ-1** would reduce potential impacts from flooding to a less than significant level. In addition, the Project would design the Iron and Manganese Treatment System to avoid impacts from flooding. Design features due to known flood hazards at this site would include increasing elevations of development areas, flood proofing of project components, and new stormwater infrastructure improvements. As a result, the Proposed Project would have a **less-than-significant impact** related to the risk or release of pollutants due to inundation from being located in a flood hazard zone **with incorporation of mitigation**.

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

PVWMA is the agency responsible for overseeing groundwater sustainability and quality within the Pajaro Subbasin which underlies the Project area. The Proposed Project is located within an area that has been subject to increased seawater intrusion due to historic groundwater over drafting (PVWMA, 2021). Groundwater within the Project area has increased in salinity due to increased seawater intrusion, which has negatively impacted local groundwater quality. In addition, individual wells and water systems within the Project area have been issued citations and violations by the County due to concentrations of pollutants exceeding their respective maximum contaminant levels. The Proposed Project would consolidate potable water service in the Project area and includes the removal of wells that do not meet standards for drinking water quality. In addition, the Proposed Project would source water from locations located further inland, which would help to lessen the rate of seawater intrusion within coastal portions of the Proposed Project area. As noted above, the shift in groundwater pumping to an inland area would not substantially decrease groundwater supplies in the short-term or long-term (see *Impact b.*, above).

The Proposed Project would accommodate existing demand and does not propose adding additional water connections that would result in increased groundwater pumping that would be in conflict with PVWMA's 2022 Groundwater Sustainability Update. The shift of pumping inland from the Springfield Terrace, an area impacted by seawater intrusion, could provide a beneficial effect to regional groundwater quality. For example, PVWMA's Coastal Distribution System distributes supplemental water (recycled and other sources) to the Springfield Terrace and other coastal areas in the Pajaro Valley to reduce groundwater pumping. Reducing pumping in the coastal area aligns with PVWMA's efforts to develop and maintain a hydrostatic barrier to slow and eventually halt seawater intrusion through in-

lieu groundwater recharge in coastal areas of reduced pumping (PVWMA, 2022). While the Proposed Project represents a shift in pumping away from coastal areas rather than an outright reduction in groundwater pumping, the reduced pumping in coastal areas would likewise help to maintain a hydrostatic barrier to slow and eventually halt seawater intrusion.

The PVWMA noted a potential impact of concern with the Proposed Project if the individual property owners' domestic wells in the Springfield area fall into disrepair from lack of operation and maintenance if they are not abandoned upon implementation. PVWMA raised concerns that without proper well destruction, individual wells in the future that fall into disrepair could provide a conduit for contaminants from the ground surface to enter the well or for contaminants in groundwater to migrate elsewhere through intra-borehole flow. PWWMA recommends that any well that is not intended to be utilized following the consolidation should be properly destroyed to protect groundwater resources from the risk of contamination. As discussed above under **Section 1.6**, individual private wells would either be destroyed in accordance with the California Department of Water Resources ("DWR") Bulletin Nos. 74-81 and 74-90 and County Public Health Department requirements by a California State C-57 licensed contractor or retained on a case-by-case basis for irrigation. Well destruction is assumed to occur entirely within developed and disturbed areas. Well destruction typically includes removal of the top five (5) feet of well casing, requiring excavation. However, individual well destruction would be subject to the conditions of well destruction permits issued by the County Environmental Health Bureau, including verification that no sensitive resources would impacted during well destruction. Any wells to be retained for irrigation purposes would be at the discretion of the individual owners and would require improvements to ensure that well water does not enter the District's service system, including but not limited to, the installation of backflow devices and airgaps. Well owners shall be required to ensure that all water using equipment is installed in accordance with plumbing code requirements pursuant to Section 7584 of Title 17 of the California Code of Regulations and would be responsible for paying for an annual cross connection certification to demonstrate no connections exist between the potable and non-potable systems. In addition, any wells retained may require County permitting and/or approvals that are not included under the Proposed Project. However, cross contamination as a result of well retention could represent a potentially significant impact to the water quality objectives of PVWMA and the District. Therefore, the District would **implement the following mitigation measure** to ensure that water quality impacts from cross-contamination that would conflict with or obstruct an applicable water quality control plan from wells to be retained are **less-than-significant**.

> **Mitigation Measure HYD-1**: Prior to initiating District water service at any parcel that is utilizing locally pumped irrigation water from an on-site well, the parcel owner and/or occupant shall provide the District with documentation demonstrating that equipment has been installed to separate the non-potable irrigation use from District provided potable water pursuant to Section 7584 of Title 17 of the California Code of Regulations.
>
> On an ongoing basis throughout operation of the Proposed Project, the District shall perform water monitoring at service connections where wells have been retained for irrigation to ensure that equipment for separating potable and non-potable water is functioning correctly. Monitoring shall be included as part of regular system maintenance checks unless the District decides that more frequent monitoring is required. In the event that water monitoring shows that equipment may not be functioning correctly, the District shall take applicable steps to protect their water distribution system, including, but not limited to, suspending water service for service connections where non-potable water is suspected of infiltrating the potable water system. Water service to these service connections shall not be restored until the owner/occupant has made the necessary repairs and/or

replacements to the equipment and additional water monitoring shows that cross-contamination between the potable and non-potable water connections has ceased.

**Consistency with PVWMA Groundwater Sustainability Planning**

The PVWMA's approved AGSP and 2022 Groundwater Sustainability Update ("GSU22") identify basin sustainability indicators for groundwater levels, storage, seawater intrusion, and water quality. The overarching management goal is to achieve groundwater sustainability by 2040 through projects and programs that reduce coastal pumping, enhance inland recharge, and balance extractions with the basin's sustainable yield.

The Proposed Project's operational framework—consolidating existing water systems, decommissioning substandard coastal wells, and shifting limited groundwater production inland—is consistent with PVWMA management actions described in the GSU22, including Management Action MA-9: Redistribute groundwater production away from the coast and MA-11: Support water supply reliability through system interties and consolidation.

The Project does not increase total groundwater demand in the Basin and instead redistributes pumping to areas less susceptible to seawater intrusion, supporting PVWMA's objective to develop and maintain a hydrostatic barrier in the Coastal Zone. Temporary construction dewatering, if required, would be minimal and subject to PVWMA and Central Coast RWQCB permitting. Dewatering volumes would not measurably alter basin conditions.

Furthermore, implementation of **Mitigation Measure HYD-1** ensures that all unused or unmaintained private wells are either properly destroyed or equipped with cross-connection controls consistent with DWR Bulletin Nos. 74-81 and 74-90. These measures prevent the creation of vertical conduits that could allow contaminant migration or inter-aquifer flow, directly supporting PVWMA's water quality protection objectives (GSU22 § 5.3).

The Proposed Project would not create new groundwater demand (consistent with PVWMA AGSP § 5.1), would help to reduce coastal pumping and seawater intrusion risk (GSU22 § 4.2), would address protection of groundwater quality by requiring proper well destruction and backflow prevention (GSU22 § 5.3), and would serve to improve system reliability through consolidation and infrastructure upgrades (MA-11).

Therefore, with the implementation of **Mitigation Measure HYD-1** and State and local requirements for well destruction and abandonment and installation of backflow prevention devices to prevent cross-contamination, the Proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, the impact is **less-than-significant with mitigation incorporated**.

## 4.11. LAND USE AND PLANNING

### Environmental Setting

The Proposed Project is located north of the community of Moss Landing and south of the community of Pajaro in unincorporated Monterey County. The 2010 Monterey County General Plan, the 1982 Monterey County General Plan, the North County Area Plan, and the North County LUP/LCP are applicable to the Proposed Project and regulate land use policies in the Proposed Project Area.

Portions of the Proposed Project are located within the North County LUP Area, which includes the unincorporated area of the Coastal Zone spanning from the City of Marina's municipal limits to the Santa Cruz County boundary at the Pajaro River, and inland nearly to U.S. Route 101 to include as much

as possible of the Elkhorn Slough watershed. The remaining portions of the Proposed Project are located within the North County Area Plan, which includes the unincorporated inland area from the City of Marina's city limits to the Santa Cruz County boundary. The majority of the Proposed Project is within the Coastal Zone as designated by the California Coastal Commission. Two (2) separate documents direct land use planning in North County: the North County Area Plan and the North County LUP segment of the LCP. The North County LUP/LCP cover land use activities within the Coastal Zone, which encompasses about half of the North County Planning Area, while the North County Area Plan has jurisdiction over the rest of the planning area. The Board of Supervisors adopted the North County LUP/LCP and certified by the California Coastal Commission in 1982 as part of the LCP for Monterey County.

The North County LUP/LCP identifies the quality of water as one of the most crucial issues facing the North County area of Monterey County. Water issues such as lack of developed infrastructure, significant groundwater overdraft, nitrate contamination and saltwater intrusion into the groundwater aquifer are serious problems faced by all of the communities of North County. Some individual water/sewer systems and failing municipal systems are increasingly unable to meet the current and rising demand for development and services. The Proposed Project would consolidate multiple water systems and water connections in the NOML area in North County in order to address issues with water quality, water supply reliability, and vulnerabilities to failure.

As described in **Table 3**, components of the Project are located in both the Coastal Zone and inland areas of Monterey County. The Iron and Manganese Treatment System, Sunny Mesa Tank Site, and Pajaro Tank site are located outside of the Coastal Zone. The Transmission Booster Pump Station, Bluff/Jensen Tank and Pump Station site, and proposed easement components of the Proposed Project are located within the Coastal Zone. The various pipeline components of the Proposed Project are located both inside and outside of the Coastal Zone as depicted in **Figure 3**.

The North County Area Plan designate the lands surrounding the Proposed Project area outside of the Coastal Zone as "Farmlands 40 – 160 Ac Min", "Resource Conservation", "Commercial", "Residential - Low Density 5 - 1 Acres/Unit", "Residential - Medium Density 1 - 5 Units/Acre", and Residential - High Density 5 - 20 Units/Acre." The North County LUP/LCP designates lands surrounding the Proposed Project area inside of the Coastal Zone as "Agricultural Preservation 40 Ac Min", "Residential - Rural Density 5 - 40 AC/U", "Residential - Medium Density 1 - 4 U/AC", "General Commercial", and "Wetlands & Coastal Strand" (see **Figure 3**).

The Proposed Project includes annexation of eight (8) parcels into the District's current service area as described in **Section 1.6** of this document. The Proposed Project requires approval from the Monterey County LAFCO for a Sphere of Influence Amendment and Service Area Annexation for the District to amend its service area to extend water supply infrastructure to these parcels to provide water service. The Proposed Project is subject to Monterey County LAFCO policies and the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code Section 56000 et seq.). LAFCO's policies promote the efficient provision of public services, the orderly formation and expansion of local government agencies, and the discouragement of urban sprawl. Applicable LAFCO policies include, but are not limited to:

- **Encouragement of Service Consolidation:** LAFCO supports the consolidation or extension of public service systems where such actions improve service reliability, water quality, or cost-efficiency and address documented public health or safety concerns.

- **Sphere of Influence Amendments:** SOI boundaries should reflect the probable 20-year service area of an agency, consistent with its capacity to provide services and in coordination with adopted County land use plans.
- **Annexation Policy:** Annexations should result in logical and contiguous service areas, ensure adequate service delivery, and be consistent with adopted General Plan and Area Plan policies.
- **Public Health and Environmental Protection:** LAFCO may consider annexations or service extensions outside existing boundaries to correct documented water quality or quantity problems affecting public health or safety, provided that the extension does not induce growth or conflict with land use plans.

The Proposed Project's objective—to consolidate individual water systems experiencing water quality and quantity deficiencies and to extend potable water service from the District—aligns with these LAFCO policies promoting regional coordination, efficient service delivery, and protection of public health.

The District's existing service area is depicted in **Figure 14**.

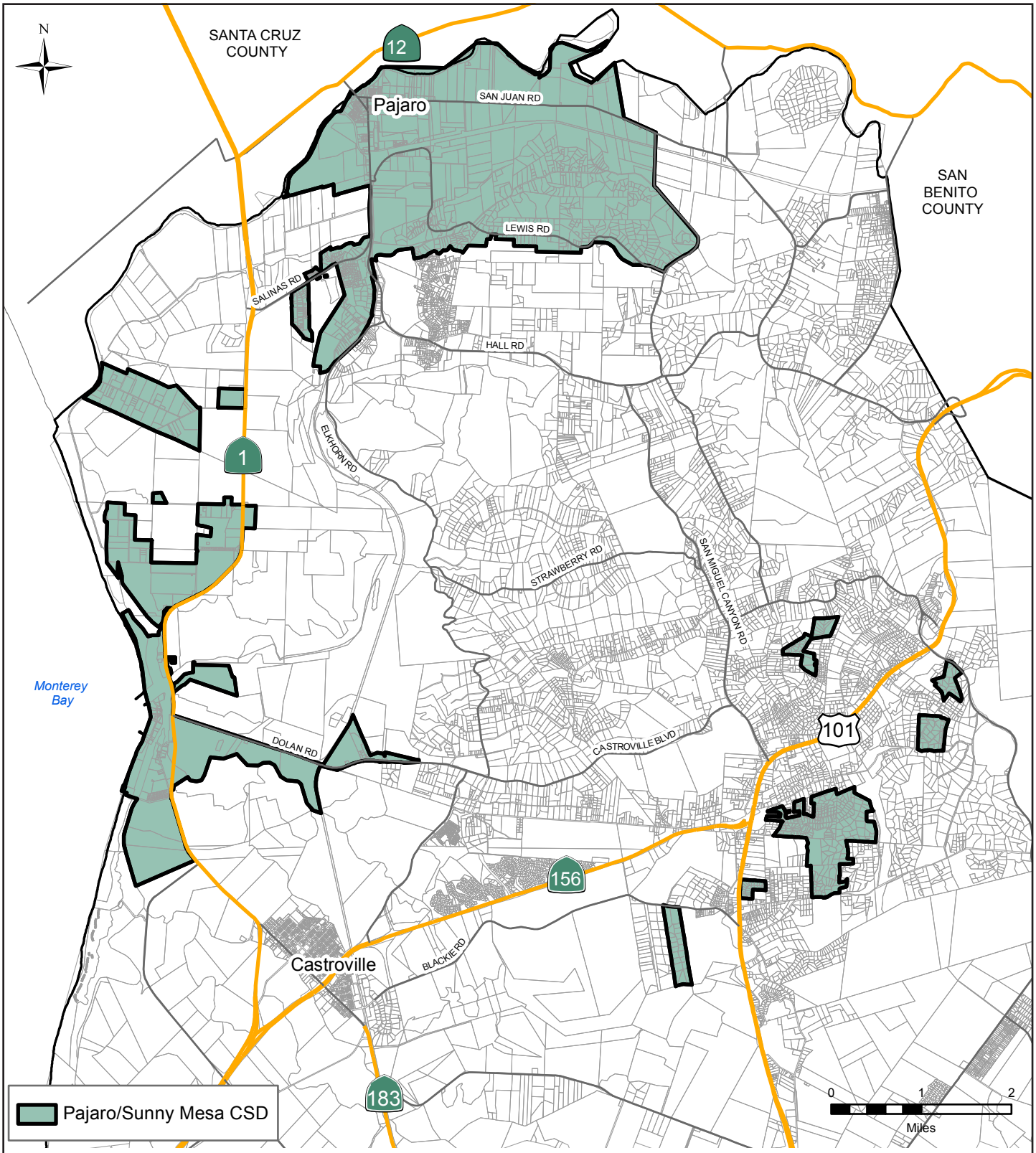
**Regulatory Environment**

***Federal***

***Coastal Zone Management Act*:** Congress passed the Coastal Zone Management Act in 1972 to regulated growth in coastal areas of the United States. The Coastal Zone Management Act is administered by NOAA to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone" through three (3) distinct programs, the National Coastal Zone Management Program, the National Estuarine Research Reserve System, and the Coastal and Estuarine Land Conservation Program. The Coastal Zone Management Act also encourages states to develop coastal management programs and implement federal consistency procedures. The federal government certified the California Coastal Management Program in 1977 and provides funding to implement programs to support management of the California Coast.

***State***

***California Coastal Management Program*:** As stated above, the federal government certified the California Coastal Management Program in 1977 and provides funding to implement programs to support management of the California Coast. The California Coastal Management Program is administered by three (3) state agencies, consisting of the CCC, California Coastal Conservancy, and the San Francisco Bay Conservation and Development Commission.




Source: LAFCO, 2015

| | | | | |
|---|---|---|---|---|
| Title: Existing District LAFCO Boundaries | Date 10/20/2025<br>Scale N/A<br>Project 2023.47 | Monterey \| San Jose<br>**Denise Duffy and Associates, Inc.**<br>Environmental Consultants Resource Planners<br>947 Cass Street, Suite 5<br>Monterey, CA 93940<br>(831) 373-4341 | | Figure 14 |

***California Coastal Act:*** The CCC was established by voter initiative in 1972 (Proposition 20) and later made permanent by the California State Legislature through adoption of the CCA of 1976. The CCC, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone. California's coastal zone generally extends 1,000 yards inland from the mean high tide line. In significant coastal estuarine habitat and recreational areas, it extends inland to the first major ridgeline or five miles from the mean high tide line, whichever is less. In developed urban areas, the boundary is generally less than 1,000 yards. Development activities, which are broadly defined by the CCA to include (among others) construction of buildings, divisions of land, and activities that change the intensity of use of land or public access to coastal waters, generally require a CDP from either the CCC or the local government if an LCP has been certified. After certification of an LCP, coastal development permit authority is delegated to the appropriate local government, but the CCC retains original permit jurisdiction over certain specified lands (such as tidelands and public trust lands). The Commission also has appellate authority over development approved by local governments in specified geographic areas as well as certain other developments. A CDP is required in addition to any other permit required from resource agencies.

***Local***

***2010 Monterey County General Plan*:** Relevant policies from the 2010 Monterey County General Plan applicable to the inland portions of the Proposed Project are identified throughout this IS/MND.

***North County Area Plan:*** Relevant policies from the North County Area Plan applicable to the inland portions of the Proposed Project are identified throughout this IS/MND.

***1982 Monterey County General Plan*:** Relevant policies from the 1982 Monterey County General Plan applicable to the coastal portions of the Proposed Project are identified throughout this IS/MND.

***North County LUP*:** Relevant policies from the North County LUP are applicable to the coastal portions of the Proposed Project and are identified throughout this IS/MND.

***Monterey County Code:*** Relevant regulations from Title 20 that are applicable to the coastal portions of the Proposed Project are identified throughout this IS/MND.

Relevant regulations from Title 21 that are applicable to portions of the Proposed Project located outside the Coastal Zone are identified throughout this IS/MND.

***Monterey County Local Agency Formation Commission ("LAFCO") Policies***

The Proposed Project is subject to Monterey County LAFCO policies and the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Government Code Section 56000 et seq.) and will require LAFCO approval for annexation of property into the District and amending the District's Sphere of Influence (SOI) to facilitate the water system consolidation. In addition to its statutory responsibilities under the Cortese–Knox–Hertzberg Local Government Reorganization Act of 2000, the LAFCO's mission includes preserving agricultural lands and open space while fostering orderly growth of local agencies. (Monterey County LAFCO website). The Proposed Project will be evaluated for consistency with LAFCO's policies for agricultural land protection, efficient provision of public services, orderly formation and expansion of local government agencies, and the discouragement of urban sprawl.

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Physically divide an established community? | ☐ | ☐ | ☐ | ■ |
| b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ■ | ☐ |

**Impact Discussion**

*a. Would the project physically divide an established community?*

The division or disruption of an established community would occur if a project created a physical barrier that separates, isolates, or divides portions of a built community. The physical division of a community is traditionally associated with the construction of large-scale transportation improvements such as a highway or the creation of a large university campus. The Proposed Project consists of the consolidation of smaller water systems and construction of water treatment and distribution system improvements to serve the Proposed Project area. The Project would install all pipeline components underground and would not physically divide an established community.

The Proposed Project includes a LAFCO Sphere of Influence Amendment and Service Area Annexation to add several parcels into the District's service area. The Proposed Project would amend the District's existing service area, however, this action would not physically divide an established community. **No impact** would occur.

*b. Would the project 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?*

The Proposed Project would not cause a significant environmental impact due to a conflict with any coastal or inland land use plan, policy, or regulations adopted for the purpose of avoiding or mitigation an environmental effect. The new distribution system pipeline alignments under each phase of construction would be located primarily in the public ROW on public roads. The consolidation of water systems and construction of water distribution system improvements are consistent with the land use designations within the Proposed Project area. The Proposed Project would address issues related to water quality, water supply reliability, and vulnerabilities related to the multiple water systems and individual wells in the Proposed Project area by providing reliable supply of water meeting state drinking water standards through the District as well as constructing water treatment and distribution system improvements.

The Proposed Project includes a LAFCO Sphere of Influence Amendment and Service Area Annexation to add several parcels into the District's service area. The District's ability to provide water to parcels outside of their existing boundaries under the Proposed Project would be contingent on these LAFCO approvals. The addition of these parcels to the District's would occur in compliance with all applicable LAFCO policies related to Sphere of Influence Amendments and Service Area Annexations as outlined in the LAFCO Policies and Procedures Manual (LAFCO, 2025) including, but not limited to, a LAFCO service review and a duly noticed public hearing. LAFCO's policies promote the efficient provision of public

services, the orderly formation and expansion of local government agencies, and the discouragement of urban sprawl. Applicable LAFCO policies include, but are not limited to:

- Encouragement of Service Consolidation: LAFCO supports the consolidation or extension of public service systems where such actions improve service reliability, water quality, or cost-efficiency and address documented public health or safety concerns.
- Sphere of Influence Amendments: SOI boundaries should reflect the probable 20-year service area of an agency, consistent with its capacity to provide services and in coordination with adopted County land use plans.
- Annexation Policy: Annexations should result in logical and contiguous service areas, ensure adequate service delivery, and be consistent with adopted General Plan and Area Plan policies.
- Public Health and Environmental Protection: LAFCO may consider annexations or service extensions outside existing boundaries to correct documented water quality or quantity problems affecting public health or safety, provided that the extension does not induce growth or conflict with land use plans.
- Provision of Municipal Services: The District must demonstrate the technical and financial capability to provide safe and reliable water service to the affected area in compliance with State Water Resources Control Board Division of Drinking Water standards.

While the Proposed Project would expand the District's service area, this water consolidation project is intended to address public health and water quality deficiencies rather than to stimulate or allow new growth or expansion. Therefore, the proposed Sphere of Influence Amendment and Service Area Annexation would not conflict with any land use plans, policies, or regulations adopted to avoid or mitigate a potential environmental effect.

For these reasons, the Proposed Project would have a net beneficial impact to water quality. Construction of the Proposed Project would be limited to areas that are currently developed and previously disturbed in connection with existing use. Where appropriate, this IS/MND has identified mitigation measures to further ensure impacts remain less than significant. As a result, the Proposed Project would not conflict with any policies adopted for the purpose of avoiding and/or substantially lessening an adverse impact. Therefore, impacts would be **less-than-significant**.

## 4.12. MINERAL RESOURCES

### Environmental Setting

The Surface Mining and Reclamation Act ("SMARA") of 1975 and the California Geological Survey ("CGS") defines and maps regional significant mineral resources. The CGS delineates Mineral Resource Zones ("MRZs") based on their mineral resource potential. The Transmission Booster Pump Station and PWS to SMWS Transmission Main components are located in an area classified as MRZ-1. CGS defines MRZ-1 as "areas where available geologic information indicates that little likelihood exists for the presence of significant construction aggregate resources." However, no mineral resources are known to exist in the remainder of the Proposed Project area (DOC, 2024a). Additionally, the County does not designate the Proposed Project area as a mineral recovery site in the 1988 Monterey County North County Coastal Implementation Plan, 2010 Monterey County General Plan, North County LUP/LCP, or the North County Area Plan.

**Regulatory Framework**

***State***

***Surface Mining and Reclamation Act***: The SMARA of 1975 and the CGS define and prepare maps of regionally significant mineral resources. The CGS delineates MRZs based on their mineral resource potential.

***Local***

***2010 Monterey County General Plan*:** There are no relevant mineral resources policies in the 2010 Monterey County General Plan that would apply to the inland portions of the Proposed Project.

***North County Area Plan:*** There are no relevant mineral resources policies in the North County Area Plan that would apply to the inland portions of the Proposed Project.

***1982 Monterey County General Plan*:** There are no relevant mineral resources policies in the 1982 Monterey County General Plan that would apply to the inland portions of the Proposed Project.

***North County LUP*:** There are no mineral resources policies provided in the North County LUP relevant to the coastal portions of the Proposed Project:

***Monterey County Code:*** The County of Monterey Zoning Ordinance (Title 20) includes regulations for mineral resource extraction for areas inside the Coastal Zone. There are no mineral resource extraction regulations identified in Title 20 applicable to the portions of the Proposed Project within the Coastal Zone.

The County of Monterey Zoning Ordinance (Title 21) includes regulations for mineral resource extraction for areas outside the Coastal Zone. There are no mineral resource extraction regulations identified in Title 21 applicable to the portions of the Proposed Project outside of the Coastal Zone.

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | ☐ | ☐ | ■ | ☐ |
| b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | ☐ | ☐ | ☐ | ■ |

**Impact Discussion**

*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?*

The Transmission Booster Pump Station and PWS to SMWS Transmission Main components are located in an area classified as MRZ-1. CGS defines MRZ-1 as "areas where available geologic information indicates that little likelihood exists for the presence of significant construction aggregate resources." No

mineral resources are known to exist within the Proposed Project area (DOC, 2024a). This represents a **less-than-significant 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?*

Neither the 1988 Monterey County North County Coastal Implementation Plan, 2010 Monterey County General Plan, North County LUP/LCP, or the North County Area Plan designate the Project area as a mineral recovery site. Therefore, the Proposed Project would not result in the loss of availability of a locally important mineral resource recovery site. **No impact** would occur.

## 4.13. NOISE

### Environmental Setting

Noise is generally defined as sound that is loud, disagreeable, or unexpected. Sound is mechanical energy transmitted in the form of a wave because of a disturbance or vibration. Sound levels are described in terms of both amplitude and frequency. Noise is commonly defined as unwanted sound. Airborne sound is a rapid fluctuation of air pressure above and below atmospheric pressure. Sound levels are usually measured and expressed in decibels ("dBs") with 0 dB corresponding to the threshold of hearing. **Table 18 Definitions of Acoustical Terms Used** contains definitions of key technical terms. Most sounds consist of a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound.

**Table 18**
**Definitions of Acoustical Terms Used in this Report.**

| Term | Definitions |
|---|---|
| Decibel, dB | A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20. |
| Sound Pressure Level | Sound pressure is the sound force per unit area, usually expressed in micro-Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micro-Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter. |
| Frequency, Hz | The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz. |
| A-Weighted Sound Level, dBA | The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. |
| Equivalent Noise Level, $L_{eq}$ | The average A-weighted noise level during the measurement period. The hourly $L_{eq}$ used for this report is denoted as dBA $L_{eq[h]}$. |
| Community Noise Equivalent Level, CNEL | The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels in the night between 10:00 pm and 7:00 am. |

| Term | Definitions |
|---|---|
| Day/Night Noise Level, Ldn or DNL | The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am. |
| Ln Values<br>$L_{01}$, $L_{10}$, $L_{50}$, $L_{90}$ | The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period. |
| Ambient Noise Level | The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location. |
| Intrusive | That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level. |

The method commonly used to quantify environmental sounds consists of evaluating all the frequencies of a sound in accordance with a weighting that reflects the facts that human hearing is less sensitive at low frequencies and extreme high frequencies than in the frequency mid-range. This phenomenon is called "A" weighting, and the decibel level measured is called the A-weighted sound level ("dBA"). Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources, which creates a relatively steady background noise in which no particular source is identifiable. To describe the time-varying character of environmental noise, the statistical noise descriptors, $L_{01}$, $L_{10}$, $L_{50}$, and $L_{90}$, are commonly used. They are the A-weighted noise levels equaled or exceeded during one (1) percent, 10 percent, 50 percent, and 90 percent of a stated time period. A single number descriptor called the $L_{eq}$ is also widely used and represents the average, or a weighted noise level during a stated period of time.

The Proposed Project is not located in the vicinity of a private airstrip or an airport LUP, or within two (2) miles of a public airport or public use airport.

**Regulatory Environment**

***State***

The State of California regulates vehicular and freeway noise affecting classrooms, sets standards for sound transmission and occupational noise control, and identifies noise insulation standards and airport noise/land-use compatibility criteria.

***California General Plan Guidelines*:** The State of California General Plan Guidelines, published by the Governor's Office of Land Use and Climate Innovation ("LCI") (formerly the Office of Planning and Research), also provides guidance for the acceptability of projects in specific CNEL/Ldn contours. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution. For multi-family land uses, the State of California General Plan Guidelines identify a "normally acceptable" exterior noise level of up to 65 dBA CNEL/Ldn. Multi-family land uses are considered "conditionally acceptable" in noise environments of 60 to 70 dBA CNEL/Ldn, "normally unacceptable" in exterior noise environments of 70 to 75 CNEL/Ldn, and "clearly unacceptable" in exterior noise environments exceeding 75 dBA CNEL/Ldn. Assuming a minimum exterior-to-interior noise reduction of 25 dB, an exterior noise environment of 70 dBA CNEL/Ldn would allow for a normally acceptable interior noise level of 45 dBA CNEL/Ldn.

***California Code of Regulations*:** The California Commission of Housing and Community Development officially adopted noise insulation standards in 1974. In November 1988, the BSC approved revisions to

these standards (Title 24, Part 2, CCR). Title 24 requires interior noise levels attributable to exterior sources must not exceed 45 dB in any habitable room. Additionally, the code specifies that multi-family residential buildings or structures that will be located in exterior CNEL (or Ldn) contours of 60 dBA, or greater, of sources such as a freeway, expressway, parkway, major street, thoroughfare, airport, rail line, rapid transit line or industrial noise source shall require an acoustical analysis showing that the building has been designed to limit intruding noise to an interior CNEL (or Ldn) of 45 dBA. Predictions must also be made for future noise levels for a period of at least 10 years from the time of building permit application.

***Local***

***2010 Monterey County General Plan:*** The following policy from the 2010 Monterey County General Plan would be applicable to the inland portions of the Proposed Project.

**Policy PS-8.3** Programs for the routine inspection of food, water systems, sewage disposal, public housing, institutions, labor camps, swimming pools, recreation facilities, locations of hazardous substances, and noise hazards shall be established or maintained.

**Policy S-7.2** Proposed development shall incorporate design elements necessary to minimize noise impacts on surrounding land uses and to reduce noise in indoor spaces to an acceptable level.

**Policy S-7.8** All discretionary projects that propose to use heavy construction equipment that has the potential to create vibrations that could cause structural damage to adjacent structures within 100 feet shall be required to submit a pre-construction vibration study prior to the approval of a building permit. Projects shall be required to incorporate specified measures and monitoring identified to reduce impacts. Pile driving or blasting are illustrative of the type of equipment that could be subject to this policy.

**Policy S-7.9** No construction activities pursuant to a County permit that exceed "acceptable" levels listed in Policy S-7.1 shall be allowed within 500 feet of a noise sensitive land use during the evening hours of Monday through Saturday, or anytime on Sunday or holidays, prior to completion of a noise mitigation study. Noise protection measures, in the event of any identified impact, may include but not be limited to:

- Constructing temporary barriers, or
- Using quieter equipment than normal.

**Policy S-7.10** Construction projects shall include the following standard noise protection measures:

- Construction shall occur only during times allowed by ordinance/code unless such limits are waived for public convenience;
- All equipment shall have properly operating mufflers; and
- Lay-down yards and semi-stationary equipment such as pumps or generators shall be located as far from noise-sensitive land uses as practical.

***North County Area Plan*:** None of the policies provided in the North County Area Plan are applicable to the inland portions of the Proposed Project.

***1982 Monterey County General Plan:*** There are no policies from the 1982 Monterey County General Plan that would apply to the coastal portions of the Proposed Project.

***North County LUP*:** There are no noise policies provided in the North County LUP relevant to the coastal portions of the Proposed Project.

***Monterey County Code:*** The County of Monterey Zoning Ordinance (Title 20) includes regulations for noise producing activities for areas inside the Coastal Zone. None of the noise regulations included in Title 20 would apply to the Proposed Project.

The County of Monterey Zoning Ordinance (Title 21) includes regulations for noise producing activities for areas outside the Coastal Zone. None of the noise regulations included in Title 21 would apply to the Proposed Project.

The County of Monterey Health and Safety Ordinance (Title 10, Chapter 10.60) includes regulations for noise producing activities in unincorporated areas of the County. The Ordinance applies to "any machine, mechanism, device, or contrivance" within 2,500 feet of any occupied dwelling unit and limits the noise generated to 85 dBA at a distance of 50 feet from the noise source. In addition, Title 10 prohibits making, assisting in making, allowing, continuing, creating, or causing any loud and unreasonable sound (any sound that is plainly audible at a distance of 50 feet or more in any direction from the source) any day of the week from 9:00 p.m. to 7:00 a.m. the following morning.

| **Would the project result in:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ■ | ☐ | ☐ |
| b) Generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ■ | ☐ |
| c) For a project located in the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, in 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? | ☐ | ☐ | ☐ | ■ |

**Impact Discussion**

*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?*

The Proposed Project would construct water pipelines and infrastructure improvements within the Project area, which is predominantly characterized by residential and agricultural land uses. In addition, there are educational land uses (Ohlone Elementary School at 21 Bay Farms Road) and commercial land uses in the Proposed Project area. Residential and educational uses in proximity to the Proposed Project would constitute sensitive receptors. The Proposed Project would not generate a substantial 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. The Proposed Project would, however, result in temporary construction-related noise and operational noise. The Project would implement mitigation measures necessary to ensure that temporary construction-related impacts would remain less-than-significant.

***Construction***

Construction noise typically occurs intermittently and varies depending upon the nature or phase of construction (e.g., land clearing, grading, construction). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Although noise ranges were found to be similar for all construction phases, the initial site preparation phases, including grading and excavation activities, tend to involve most equipment and result in the highest average-hourly noise levels. **Table 19** summarizes noise levels commonly associated with construction equipment. As noted in **Table 19**, instantaneous noise levels (in dBA $L_{max}$) generated by individual pieces of construction equipment typically range from approximately 80 dBA to 85 dBA $L_{max}$ at 50 feet. Typical operating cycles may involve two (2) minutes of full power, followed by three (3) or four (4) minutes at lower settings. Average-hourly noise levels for individual equipment range from 73 to 82 dBA $L_{eq}$. Based on typical off-road equipment usage rates and assuming multiple pieces of equipment operating simultaneously in a localized area, average-hourly noise levels could reach levels of approximately 80 dBA $L_{eq}$ at roughly 100 feet.

**Table 19**
**Construction Equipment Noise Emission Levels**

| Equipment | Typical Noise Level (dBA) 50 feet from Source | Typical Noise Level (dBA) 100 feet from Source[1] | Typical Noise Level (dBA) 200 feet from Source[1] | Typical Noise Level (dBA) 400 feet from Source[1] |
|---|---|---|---|---|
| Air Compressor | 81 | 75 | 69 | 63 |
| Backhoe | 80 | 74 | 68 | 62 |
| Ballast Equalizer | 82 | 76 | 70 | 64 |
| Ballast Tamper | 83 | 77 | 71 | 65 |
| Compactor | 82 | 76 | 70 | 64 |
| Concrete Mixer | 85 | 79 | 73 | 67 |
| Concrete Pump | 82 | 76 | 70 | 64 |
| Concrete Vibrator | 76 | 70 | 64 | 58 |
| Dozer | 85 | 79 | 73 | 67 |
| Generator | 81 | 75 | 69 | 63 |
| Grader | 85 | 79 | 73 | 67 |
| Impact Wrench | 85 | 79 | 73 | 67 |
| Jack Hammer | 88 | 82 | 76 | 70 |
| Loader | 85 | 79 | 73 | 67 |
| Paver | 89 | 83 | 77 | 71 |
| Pneumatic Tool | 85 | 79 | 73 | 67 |
| Pump | 76 | 70 | 64 | 58 |
| Roller | 74 | 68 | 62 | 56 |

Source: DOT, Transit Noise and Vibration Impact Assessment, 2006
Construction generated noise levels drop off at a rate of about six (6) dBA per doubling of distance between the source and receptor.

The nearest sensitive receptors adjacent to the Proposed Project are residences located along the road ROWs in the Proposed Project area, residences located adjacent to the existing Sunny Mesa Tank site, as well as educational receptors located at Ohlone Elementary School located approximately 792 feet from

the Transmission Main component. Typical hourly average construction-generated noise levels range from about 75 dBA to 89 dBA Leq, measured at a distance of 50 feet from the center of the site during busy construction periods, e.g., earth moving equipment, impact tools, etc. Construction activities for the pipeline alignments could occur within 25-feet of residences and based on the noise emissions illustrated in **Table 19**, would generate a temporary but potentially significant impact. In addition, construction activities would be located approximately 792 feet from educational receptors. Noise from the Proposed Project may also impact other groups including agricultural workers, and longer-term construction at the Bluff/Jensen Tank and Pump Station would occur within 100 feet of residential receptors. Noise emissions diminish with distance from equipment as depicted on the construction noise emission levels illustrated in **Table 19**. However, construction-generated noise levels could potentially exceed the County's noise standards identified in Title 10 for both daytime (70 dBA at 50 feet from source of noise) and nighttime construction (65 dBA at 50 feet from source of noise). For these reasons, mitigation is necessary to ensure that temporary noise related impacts do not exceed applicable County noise standards.

**Mitigation Measure NOS-1:** Contractor specifications shall include a requirement that construction equipment shall be equipped with noise reducing engine housings or other noise reducing technology. Prior to and during construction, portable acoustic barriers and/or shields shall be installed and maintained to reduce noise levels such that noise levels are no more than 75 dBA (or, A-Weighted Sound Level) at 25 feet to block noise from nearby sensitive receptors within 100 feet of the limits of construction. Prior to construction, the contractor shall submit to the County of Monterey, a "Construction Noise Control Plan" for review and approval. The plan shall identify all feasible noise control procedures that would be implemented during construction activities. At a minimum, the plan shall specify the noise control treatments to achieve the specified above noise performance standard.

**Mitigation Measure NOS-2:** Residences and other sensitive receptors in 250 feet of a construction area shall be notified of the construction location and schedule in writing, at least two (2) weeks prior to the commencement of construction activities associated with each phase of construction. The notice shall also be posted along road ROWs where construction activities are planned, as well as other project construction sites including the Iron and Manganese Treatment System site (136 San Juan Road), Transmission Booster Pump Station, and Bluff/Jensen Tank and Pump Station site. The contractor shall designate a noise disturbance coordinator who shall be responsible for responding to complaints regarding construction noise. The coordinator shall determine the cause of the complaint and ensure that reasonable measures are implemented to correct the problem. A contact number for the noise disturbance coordinator shall be conspicuously placed on construction site fences and included in the notification sent to nearby residences. The County of Monterey shall review and approve the construction notice prior to distribution.

The Proposed Project would have a **less-than-significant impact** from construction noise **with incorporation of mitigation**.

***Operation***

Operation of the Proposed Project would not substantially increase noise levels beyond existing baseline conditions. The Proposed Project consists of the construction of water distribution pipeline and infrastructure facilities. The pipelines of the Proposed Project would be located underground. Noise generated from operation of the Iron and Manganese Treatment System at Pajaro Well No. 1 would be consistent with the noise generated from the existing water infrastructure at the site. Noise generated during operation of the Transmission Booster Pump Station would be located approximately 400 feet

from the nearest residential sensitive receptor. In addition, noise producing components of this site would be contained in enclosures that would lessen operational noise. The Bluff/Jensen Tank and Pump Station site would be located adjacent to residential receptors. However, the noise producing components of this site would be contained in enclosures that would lessen noise at adjacent sensitive receptors. The Proposed Project would not result in significant sources of new noise during Proposed Project operation. Therefore, the Proposed Project would have a **less-than-significant impact** during operation.

*b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Construction of the Proposed Project would generate temporary groundborne vibration. A vibration impact could occur where noise-sensitive land uses are exposed to excessive vibration levels. The nearest residential sensitive receptors are located along the road ROWs and in the vicinity of the District's office at 136 San Juan Road and residences located adjacent to the existing Sunny Mesa Tank site. The nearest educational sensitive receptors are located approximately 792 feet from the Transmission Main component of the Proposed Project at Ohlone Elementary School located at 21 Bay Farms Road. People residing in these areas could be exposed to temporary groundborne vibration or groundborne noise levels. Vibratory compactors or rollers and pavement breakers can generate perceptible vibration. Heavy trucks can also generate groundborne vibration, which varies depending on vehicle type, weight, and pavement conditions. The Federal Transit Authority has published standard vibration levels and peak particle velocities for construction equipment. **Table 20** below summarizes these standards for construction equipment.

**Table 20**
**Vibration Velocities for Construction Equipment**

| Equipment | Approximate Velocity Level at 25 Feet ("VdB") | Approximate Peak Particle Velocity at 25 Feet ("inches/second") | Approximate Peak Particle Velocity at 50 feet ("inches/second") | Approximate Peak Particle Velocity at 400 feet ("inches/second") |
|---|---|---|---|---|
| Pile Driving (sonic) | 104 | 0.644 | N/A[1] | 0.006 |
| Pile Driver (impact) | 112 | 1.518 | N/A[1] | 0.015 |
| Large Bulldozers | 87 | 0.089 | 0.031 | 0.001 |
| Small Bulldozer | 58 | 0.003 | 0.001 | 0.000 |
| Loaded Trucks | 86 | 0.076 | 0.027 | 0.001 |
| Jackhammer | 79 | 0.035 | N/A[1] | 0.000 |

Note: Data reflects typical vibration level. Source: (DOT, May 2006)

For purposes of this analysis, excessive groundborne vibration would be 0.2 inches per second (as derived from the DOT, *Earthborne Vibrations Technical Advisory* equation for attenuation of vibration) which is the level at which vibration could cause damage to masonry and wood buildings. Vibration levels from construction equipment attenuate as they radiate from the source (DOT, May 2006). The nearest sensitive receptors adjacent to the pipeline components of the Proposed Project are residences located along the road ROWs, residences located adjacent to the existing Sunny Mesa Tank site, as well as educational receptors located at Ohlone Elementary School located approximately 792 feet from the

Transmission Main component of the Project. Construction activities could occur within approximately 20-feet of residences. The Project may expose sensitive receptors in the area to groundborne vibrations of varying magnitudes depending on the type of equipment and proximity to construction activities, as shown in **Table 20**. Ground disturbing activities associated with Project grading and excavation could involve the operation of large and small bulldozers and loaded trucks. These activities could impact sensitive receptors in the area. The vibration level associated with these types of equipment would attenuate to a maximum of approximately 0.089 inches per second at 25 feet, which would not exceed the groundborne vibration threshold of 0.2 inches per second. In addition, linear construction of pipelines in the ROW would occur near these residences. Given the nature of linear construction, noise emissions would not be concentrated in single locations for extended periods of time.

More extensive construction activities would occur at the Iron and Manganese Treatment System at the existing District office at 136 San Juan Road. The nearest sensitive receptor to the Iron and Manganese Treatment System site is located 75 feet to the west of construction activities. Vibration associated with construction of this component of the Proposed Project would be below levels that could cause damage to structures, would not result in prolonged interference for sensitive receptors, and would barely be perceptible. Construction activities at the Transmission Booster Pump Station would be located approximately 400 feet from nearby sensitive receptors and would not result in construction-period vibration impacts. Construction activities at the Bluff/Jensen Tank and Pump Station site would be located approximately 100 feet from nearby sensitive receptors and would not result in construction-period vibration impacts. Rehabilitation work would not require extensive groundborne vibration at the Pajaro Tank Site or the Sunny Mesa Tank Site. For these reasons, this impact would be **less-than-significant**.

c. *For a project located in 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?*

None of the components of the Proposed Project are located in the vicinity of a private airstrip or an airport LUP. There are no airports within two (2) miles of any components of the Proposed Project. **No impact** would occur.

## 4.14. POPULATION AND HOUSING

### Environmental Setting

The Proposed Project is located north of the community of Moss Landing in northern unincorporated Monterey County. The community of Moss Landing is located 12 miles northwest of the City of Salinas, seven (7) miles south of the City of Watsonville, four (4) miles north of the community of Castroville, and eight (8) miles north of the City of Marina. The Iron and Manganese Treatment System component of the Proposed Project is located in the community of Pajaro, approximately 15 miles north of the City of Salinas and 0.5 miles south of the City of Watsonville. Portions of the Proposed Project area are within the vicinity of SR 1. The Proposed Project would serve an area that has an approximate population of 2,471 persons, with an estimated 864 residential connections. The average household size in unincorporated Monterey County is 2.86 persons per housing unit (DOF, 2024). The intent of the Proposed Project is to serve existing residences within the Proposed Project area, rather than new development. The Proposed Project would consolidate several smaller water systems and construct infrastructure improvements to improve water quality, water supply reliability, and vulnerabilities to failure.

**Regulatory Setting**

***Local***

***Monterey County General Plan*:** The 2010 Monterey County General Plan includes a Housing Element that identifies policies to address population and housing. The following policies from the 2010 Monterey County General Plan's Housing Element would be applicable to the inland portions of the Proposed Project.

**Policy H-2.13** Assist in infrastructure and public facility improvements that support existing and new affordable housing.

***North County Area Plan*:** None of the policies provided in the North County Area Plan are applicable to the inland portions of the Proposed Project.

***1982 Monterey County General Plan*:** There are no policies from the 1982 Monterey County General Plan that would apply to the coastal portions of the Proposed Project.

***North County LUP*:** There are no population and housing policies provided in the North County LUP relevant to the coastal portions of the Proposed Project.

***Monterey County Code:*** The County of Monterey Zoning Ordinance (Title 20) identifies housing regulations for areas inside the Coastal Zone. There are no housing regulations in Title 20 that would apply to the portions of the Proposed Project inside the Coastal Zone.

The County of Monterey Zoning Ordinance (Title 21) identifies housing regulations for areas outside the Coastal Zone. There are no housing regulations in Title 21 that would apply to the portions of the Proposed Project outside the Coastal Zone.

| 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 the area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | ☐ | ☐ | ■ | ☐ |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ■ |

**Impact Discussion**

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

The Proposed Project involves the consolidation of the PWS, SMWS, and SWS, as well as the various water connections in the NOML area into a single water system that the District would own and operate. In addition, the Proposed Project includes additional infrastructure improvements to facilitate O&M of the new water system. The Proposed Project also includes annexation of these existing service

areas into the District's service boundary, and installation of new pipelines, meters, and associated infrastructure necessary for efficient and reliable operation of the consolidated system. The District has designed the Proposed Project to serve the existing connections only and does not involve the expansion or development of new residential or commercial development.

Although the Proposed Project would expand the District's service boundary through annexation, the purpose of this expansion is to replace and rehabilitate existing failing and unsafe private water systems currently serving existing homes and businesses. The areas proposed for annexation are already developed, and the Proposed Project does not propose, authorize, or facilitate new residential or commercial construction. The proposed infrastructure has been designed to meet current average day, maximum day, and fire flow demands of existing customers only, without additional capacity that could accommodate unplanned future growth.

The Proposed Project would not extend potable water service into undeveloped or agricultural areas, nor would it alter existing land use designations or zoning established under the Monterey County General Plan and North Monterey County LUP. The annexation and system improvements are therefore consistent with adopted local and regional land use and growth management policies. While not planned or contemplated, any future development or new service connections outside the current developed areas would be subject to subsequent project-level CEQA review, including analysis of land use policies, potential population growth and potential for impacts from increased water demand.

In accordance with CEQA Guidelines §15126.2(d), while the Proposed Project would expand the District's service area, this action would not be considered "growth-inducing" because it is intended to address public health and water quality deficiencies rather than to stimulate or allow new development.

Therefore, the Proposed Project would not induce (directly or indirectly) unplanned population growth. For these reasons, the Proposed Project would have a **less-than-significant impact** regarding the potential to induce substantial and unplanned population growth.

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

The Proposed Project consists of multiple water systems consolidation, and treatment and distribution improvements and would not displace substantial numbers of existing people or housing. The Proposed Project would not necessitate the construction of replacement housing elsewhere. **No impact** would occur.

## 4.15. PUBLIC SERVICES

### Environmental Setting

The Proposed Project is a water system consolidation and improvements project located north of the community of Moss Landing in unincorporated Monterey County. The North County Fire Protection District ("NCFPD") serves the Proposed Project area, and the nearest fire station (Station #3) is located approximately one (1) mile to the south of the Proposed Project at 301 Elkhorn Road, on the corner of Elkhorn Road and Hall Road. The Monterey County Sheriff's Department ("MCSD") patrols the Proposed Project area, and the nearest patrol station (Central Patrol Station) is located 12 miles to the southeast of the Proposed Project area at 1414 Natividad Road in Salinas. The Proposed Project area is located within the Pajaro Valley Unified School District and the North Monterey County School District. The nearest active school to the Proposed Project is Ohlone Elementary School located at 21 Bay Farms

Road, approximately 0.15 miles to the south of the Transmission Main component of the Proposed Project.

**Regulatory Setting**

***Local***

***2010 Monterey County General Plan*:** The following policies from the 2010 Monterey County General Plan would be applicable to the inland portions of the Proposed Project.

**Policy PS-2.1** Coordination among, and consolidation with, those public water service providers drawing from a common water table to prevent overdrawing the water table is encouraged.

***North County Area Plan*:** The following policy provided in the North County Area Plan is applicable to the inland portions of the Proposed Project.

**NC-5.2** Water development projects that can offer a viable water supply to water-deficient areas in North County shall be a high priority.

***1982 Monterey County General Plan*:** The following policies from the 1982 Monterey County General Plan would be applicable to the coastal portions of the Proposed Project.

**Policy 25.1.3** The County shall evaluate and respond to long-range infrastructure needs for existing and future residential, commercial, and industrial development.

**Policy 31.1.2** The County shall designate adequate locations for future development of needed public services and facilities.

***North County LUP*:** There are no public services policies provided in the North County LUP relevant to the coastal portions of the Proposed Project:

***Monterey County Code:*** The County of Monterey Zoning Ordinance (Title 20) includes regulations for public services for areas inside the Coastal Zone. None of the public services regulations included in Title 20 are applicable to the portions of the Proposed Project inside the Coastal Zone.

The County of Monterey Zoning Ordinance (Title 21) includes regulations for public services for areas outside the Coastal Zone. None of the public services regulations included in Title 21 are applicable to the portions of the Proposed Project outside the Coastal Zone.

| **Would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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: | | | | |
| a) Fire protection? | ☐ | ☐ | ■ | ☐ |

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| b) Police protection? | ☐ | ☐ | ☐ | ■ |
| c) Schools? | ☐ | ☐ | ■ | ☐ |
| d) Parks | ☐ | ☐ | ■ | ☐ |
| e) Other public facilities | ☐ | ☐ | ■ | ☐ |

**Impact Discussion**

*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 fire protection?*

The Proposed Project is a water system consolidation and improvements project and would have no post-construction impacts on NCFPD. The Proposed Project would install fire hydrants at street intersections at intervals not exceeding 500 feet. Although unlikely, NCFPD could respond to potential construction-related emergencies. Construction of Phase 1 of the project would occur over a 24-30 month period and construction of Phase 2 is expected to be completed within approximately 18 months (including up to 12 months of overlapping construction activities between the two (2) phases). These construction activities would not significantly impact fire protection services or require the construction of new or remodeled facilities. The Proposed Project would serve existing potable water connections in the Proposed Project area and would not facilitate growth and that could result in indirect impacts on existing fire protection services once operational. This represents a **less-than-significant impact**.

*b. 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 police protection?*

The Proposed Project is a water system consolidation and improvements project and would have no post-construction impacts on MCSD. Although unlikely, MCSD could respond to potential construction-related emergencies. Construction of Phase 1 of the project is expected to be completed within 24-30 months and construction of Phase 2 is expected to be completed within approximately 18 months (including up to 12 months of overlapping construction activities between the two (2) phases). These construction activities would not significantly impact police protection services or require the construction of new or remodeled facilities. The Proposed Project would serve existing potable water connections in the Proposed Project area and would not facilitate growth and that could result in indirect impacts on existing police protection services once operational. This represents a **less-than-significant impact**.

*c. 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 schools?*

The Proposed Project is a water system consolidation and improvements project and would have no physical impact on schools, and would not require the construction of new or remodeled facilities. The Proposed Project would serve existing water connections in the Proposed Project area and would not facilitate new population growth and that could result in indirect impacts on schools. Because the Proposed Project would not result in an increase in housing units or population, there would be no change in demand for school services, and therefore no need for new or physically altered school facilities to maintain acceptable service ratios or performance standards. Therefore, **no impact** would occur.

*d. 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 parks?*

The Proposed Project is a water system consolidation and improvements project and would have no physical impact on parks, and would not require the construction of new or remodeled facilities. The Proposed Project would serve existing the residences in the Proposed Project area and would not facilitate growth and that could result in indirect impacts on parks or other recreational facilities. Therefore, **no impact** would occur.

*e. 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 other public facilities?*

The Proposed Project is a water system consolidation and improvements project and would have no physical impact on other public facilities, and would not require the construction of new or remodeled facilities. The Proposed Project would serve existing residences in the Proposed Project area and would not facilitate growth and that could result in indirect impacts on public facilities. Therefore, **no impact** would occur.

## 4.16 RECREATION

### Environmental Setting

There are no parks within any of the Proposed Project sites, however, designated park and recreation areas are located in the vicinity to the Proposed Project. Zmudowski State Beach is located about 0.65 miles to the west of the Proposed Project area (the Bluff/Jensen Split Transmission Pipeline). Additionally, the Moss Landing State Wildlife Area is located about 600 feet south of the Proposed Project area.

### Regulatory Setting

#### *Local*

***2010 Monterey County General Plan:*** There are no recreation policies from the 2010 Monterey County General Plan that would be applicable to the inland portions of the Proposed Project.

***North County Area Plan*:** None of the recreation policies provided in the North County Area Plan are applicable to the inland portions of the Proposed Project.

***1982 Monterey County General Plan*:** There are no recreation policies provided in the 1982 Monterey County General Plan that would be applicable to the coastal portions of the Proposed Project.

***North County LUP*:** There are no recreation policies provided in the North County LUP that are relevant to the coastal portions of the Proposed Project.

***Monterey County Code:*** The County of Monterey Zoning Ordinance (Title 20) includes recreation regulations for areas inside the Coastal Zone. None of the recreation regulations included in Title 20 would apply to the portions of the Proposed Project within the Coastal Zone.

The County of Monterey Zoning Ordinance (Title 21) includes recreation regulations for areas outside the Coastal Zone. None of the recreation regulations included in Title 21 would apply to the portions of the Proposed Project outside of the Coastal Zone.

| **Would the Project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | ☐ | ☐ | ☐ | ■ |
| b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | ☐ | ☐ | ☐ | ■ |

**Impact Discussion**

*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?*

The Proposed Project is a water system project and would not increase the use of surrounding recreational facilities and would not directly contribute to the physical deterioration of park facilities or necessitate the construction of new recreational facilities. The Proposed Project would serve existing potable water connections and would not indirectly induce growth that could result in substantial deterioration to existing neighborhood and regional park facilities. **No impact** to existing neighborhood and regional parks, or other recreational facilities, would occur as a result of the Proposed Project.

*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?*

The Proposed Project is a water system project and would not necessitate the construction of new recreational facilities. The Proposed Project would serve existing potable water connections and would not result in an increase in housing units or population that would require new or expanded recreational facilities. **No impact** related to new or expanded recreational facilities would occur as a result of the Proposed Project.

## 4.17. TRANSPORTATION

### Environmental Setting

The Proposed Project is located north of the community of Moss Landing in northern unincorporated Monterey County and is primarily within existing road ROWs and previously disturbed sites. Salinas Road and SR 1 provide local and regional access to the Proposed Project area. Salinas Road is a two (2)-lane major collector road, and spans from the community of Pajaro to Hilltop Road and SR 1. SR 1 is a two (2)-lane highway that runs along the Pacific coastline of the state of California. The segment of SR 1 in the vicinity of the Proposed Project spans from the intersection of Hilltop Road and Salinas Road to the north, to Springfield Road in the south. SR 1 is a state-eligible scenic highway. Other local roads in the vicinity of the Proposed Project area include Hilltop Road, Jensen Road, Bluff Road, Springfield Road, Struve Road, and several unnamed farm roads.

The North County LUP/LCP recognizes the importance of SR 1 as the primary transportation link for the major Monterey Bay cities and access along the coastline. The capacity of the two (2)-lane highway is limited by slow-moving trucks and agricultural vehicles, the amount and proximity of intersections and commercial entrances accessed directly from SR 1 (especially in Moss Landing), restricted passing sight distances, and the lack of passing lanes (Monterey County, 1982). To reduce construction costs and traffic impacts, the Proposed Project would install pipelines outside the Caltrans ROWs to the maximum extent feasible.

The Proposed Project consists of excavation within the Monterey County ROWs and SR 1 ROW (which Caltrans owns and operates). As stated above, the Project would install pipelines outside the Caltrans ROWs to the maximum extent feasible to reduce construction costs and avoid challenges with long-term maintenance costs. In addition, the Project would install pipelines in road shoulders to the extent feasible to minimize traffic control requirements during future maintenance activities. The Proposed Project will require obtaining encroachment permits from the County of Monterey and Caltrans prior to the start of construction. The encroachment permits will require a Traffic Control Plan for each agency.

According to the 2023 Monterey County Bike Map published by the Transportation Agency for Monterey County ("TAMC"), Salinas Road in the vicinity of the Proposed Project contains a Bike Lane (separated lane on roadway) and is a designated Bike Route (bicyclist share roadway on lower traffic street). The portion of Salinas Road designated as a Bike Route connects to the Bike Route on Hilltop Road. TAMC designates the segment of SR 1 in the vicinity of the Proposed Project as a "Bikes on Highway Route" (high speed roadway, bikes allowed on highways) (TAMC, 2023).

### Regulatory Environment

#### *State*

***Senate Bill 743:*** SB 743 required that starting July 2020 transportation impact for projects per CEQA be based on a project's Vehicle Miles Traveled ("VMT"). CEQA Guidelines Section 15064.3, subdivision (b)(1) calls for the evaluation of transportation impacts of projects based on VMT. CEQA uses the VMT metric to evaluate a project's transportation impacts. The publication *Technical Advisory on Evaluating Transportation Impacts in CEQA, State of* California *Governor's Office of Planning and Research*, December 2018, suggests that a significant environmental impact would occur if a project would generate more than 110 trips per day.

***Local***

***2010 Monterey County General Plan*:** The following policies from the 2010 Monterey County General Plan would be applicable to the inland portions of the Proposed Project.

**Policy C-2.7** New development shall be located and designed with convenient access and efficient transportation for all intended users and, where possible, consider alternative transportation modes.

***North County Area Plan*:** None of the policies provided in the North County Area Plan are applicable to the inland portions of the Proposed Project.

***1982 Monterey County General Plan*:** There are no transportation policies from the 1982 Monterey County General Plan relevant to the coastal portions of the Proposed Project.

***North County LUP*:** There are no transportation policies provided in the North County LUP relevant to the coastal portions of the Proposed Project.

***Monterey County Code:*** The County of Monterey Zoning Ordinance (Title 14) regulates streets, sidewalks, and public places in unincorporated Monterey County. Title 14 includes provisions for acquiring an encroachment permit for any work within a County Highway. The Proposed Project would require a County-issued encroachment permit and, as a result, would require compliance with the provisions of Title 14, including, but not limited to, preparation of a Traffic Control Plan.

The County of Monterey Zoning Ordinance (Title 20) includes transportation regulations for areas inside the Coastal Zone. None of the transportation regulations provided in Title 20 would apply to the areas of the Proposed Project inside the Coastal Zone.

The County of Monterey Zoning Ordinance (Title 21) includes transportation regulations for areas outside the Coastal Zone. None of the transportation regulations provided in Title 21 would apply to the areas of the Proposed Project outside the Coastal Zone.

| **Would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities? | ☐ | ☐ | ■ | ☐ |
| b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | ☐ | ☐ | ■ | ☐ |
| c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ■ | ☐ |
| d) Result in inadequate emergency access? | ☐ | ☐ | ■ | ☐ |

**Impact Discussion**

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

The Proposed Project would result in temporary construction related traffic and a nominal increase in operational traffic. In addition, the Proposed Project includes nighttime construction in the roadway ROW for pipeline installation. Construction-related vehicle trips would include workers traveling to and from the Project construction sites and staging area(s) and other trucks associated with equipment and material deliveries. Construction worker trips would be up to 12 large truck trips per day and 50 worker vehicle trips per day during Project construction. Truck trips for materials and hauling for the Proposed Project would vary depending on delivery of materials and construction vehicles in use at any given time during the construction process. Compared to the existing level of traffic traveling on SR 1 and local roadways, the temporary construction-related traffic would be minimal. Work within or adjacent to roadways, inclusive of daytime and nighttime work, would require one (1) way traffic controls with flaggers to construct the improvements. In the event of any type of closure, the Proposed Project must provide clear signage (e.g., closure and detour signs) to ensure vehicles, pedestrians and bicyclists are able to adequately reach their intended destinations safely. The construction contractor would prepare construction Traffic Control Plans as part of the permit conditions for encroachment permits issued by the County and Caltrans. The Traffic Control Plans would address the construction schedule, street closures and/or detours, construction staging areas and parking, and planned truck routes. The individual Traffic Control Plans would be specific to the requirements of each agency issuing an encroachment permit for the Proposed Project. Construction is a short-term, temporary activity and construction trips would account for a relatively small portion of existing traffic on area roadways. The Project would reduce construction-related traffic impacts through implementation of the required Traffic Control Plans. Additionally, these Traffic Control Plans would implement requirements to address potential disruption of local bike lanes and for bikers sharing the road with vehicular traffic during construction. Additionally, the Project would require approximately one (1) daily trip during operation and operation of the Proposed Project would not conflict with plans, programs, ordinances, or policies addressing the circulation system.

As stated above, the TAMC 2023 Monterey County Bike Map designates Salinas Road and Hilltop Road in the vicinity of the Proposed Project as a designated Bike Route. Bicycle traffic impacted by construction activities would be managed as part of the Traffic Control Plans prepared as a requirement of the encroachment permits issued by the County and Caltrans. While the Proposed Project may interfere with existing bicycle facilities during construction, all affected bicycle facilities would be restored to pre-project conditions following completion of construction. For these reasons, the Proposed Project would have a **less-than-significant impact** concerning conflict with a program, plan, ordinance, or policy addressing the circulation system.

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

The Proposed Project would not be inconsistent with CEQA guidelines Section 15064.3(b). CEQA Guidelines Section 15064.2 subdivision (b)(1) calls for the evaluation of transportation impacts of projects based on VMT. CEQA uses the VMT metric to evaluate a project's transportation impacts. The County has not adopted VMT thresholds. As a result, this analysis relies on the Office of Planning and Research's recommended small project screening threshold to determine whether the Proposed Projects VMT effects would be significant. For the IS/MND the Proposed Project would result in a significant traffic-related effect if the Proposed Project would exceed 110 daily trips.

***Construction***

The Proposed Project would result in temporary construction-related traffic. Construction would require 10 – 25 workers onsite at any given time during the duration of construction. Most of the equipment would be brought to the site at the beginning of work and remain within temporary staging areas (when not in use) until the completion of construction. As necessary, trucks would bring materials to the site. These deliveries would take place on an as-needed basis over the course of construction of the Proposed Project. Construction of the Proposed Project would occur over the course of 24-30 months between the hours of 8 AM to 5 PM, Monday through Friday. No construction would occur on weekends or holidays. Based on the construction schedule and the temporary nature of construction, it is unlikely that construction traffic would exceed the threshold of 110 daily trips. Due to the temporary nature of construction, and phased approach, this impact would be **less-than-significant**.

***Operation***

The Proposed Project would generate a nominal increase in operational traffic. These trips would occur in connection with maintenance related activities of the new system components. The Proposed Project would generate one (1) vehicle trip on a daily basis associated with system maintenance. As a result, anticipated operational traffic trips would be below the threshold of 110 daily trips. Therefore, the Project would have a **less-than-significant impact** during operation.

*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)?*

***Construction***

The Proposed Project would construct the distribution system component primarily in the County's and Caltrans' ROW. Construction of the pipeline components of the Proposed Project may require temporary road closures which could potentially result in temporary impacts related to geometric design features due to altered roadway operations. However, the Proposed Project would require approval of encroachment permits from both the County and Caltrans for work in their respective roadways. These permits would require preparation of construction Traffic Control Plans to satisfy the respective conditions of approval for each permitting agency, including any additional safety requirements for nighttime work in the roadway ROW. Adherence to these conditions of approval would ensure that temporary construction impacts from roadway closures would be **less-than-significant**.

***Operation***

Once operational, the pipeline components of the Proposed Project would not represent a geometric design feature or incompatible use that would substantially increase traffic hazards. The design and locations of the aboveground components of the Proposed Project (Iron and Manganese Treatment System, Transmission Booster Pump Station, Pajaro Tank Site, Sunny Mesa Tank Site, and Bluff/Jensen Tank and Pump Station site) are located outside of the public roadways. In addition, the County and Caltrans would review and approve these sites as part of the Project's permitting of various processes and would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersection) or incompatible uses. Therefore, the Proposed Project would have a **less-than-significant impact** during operation.

*d. Would the project result in inadequate emergency access?*

The Proposed Project would locate the distribution system component of the Proposed Project primarily in the County's and Caltrans' ROW. The Proposed Project may impact emergency access during construction. However, Proposed Project would require approval of encroachment permits from both the County and Caltrans for work in their respective roadways. These permits would require preparation of construction Traffic Control Plans to satisfy the respective conditions of approval for each permitting agency. Implementation of these Traffic Control Plans would ensure that potential impacts to emergency access during construction would remain less-than-significant.

Furthermore, these components of the Proposed Project would be located underground and would not result in inadequate emergency access. The aboveground components of the Proposed Project would be located within ROWs or on private property and have been sited to avoid impacting traffic on regional roadways. The aboveground components of the Proposed Project would not result in inadequate emergency access, resulting in a **less-than-significant impact**.

## 4.18. TRIBAL CULTURAL RESOURCES

To recognize California Native American tribal sovereignty and the unique relationship of California local governments and public agencies with California Native American tribal governments, and to respect the interests and roles of project proponents, the State Legislature enacted AB 52 (2014) *Native Americans: California Environmental Quality Act*. California AB 52, in effect since July 2015, provides CEQA protections for tribal cultural resources. All lead agencies approving projects under CEQA must, if formally requested by a culturally affiliated California Native American Tribe, consult with such tribe regarding the potential impact of a project on tribal cultural resources before releasing an environmental document. Prior to the enactment of AB 52, the State of California found that current laws provided limited protection for sites, features, places, objects, and landscapes with cultural value to California Native American Tribes. Under California Public Resources Code §21074, tribal cultural resources include site features, places, cultural landscapes, sacred places, or objects that are of cultural value to a tribe and that are eligible for or listed on the California Register or a local historic register, or that the lead agency has determined to be of significant tribal cultural value.

Achasta prepared a Phase I Archaeological Assessment for the Proposed Project in July 2025. The Phase I Archaeological Assessment includes the results of background research and field reconnaissance of the Proposed Project's APE. Background research consisted of a records search from the NWIC at Sonoma State University and a Sacred Lands File search with the NAHC. Achasta conducted an initial field reconnaissance consisted of a Phase I pedestrian and windshield survey of the APE on October 13, 2023, for cultural and Tribal cultural resources. Achasta performed follow-up surveys to cover additional areas not covered in the initial survey area on various dates between 2024 and 2025.

### Environmental Setting

#### *Regional History*

Refer to **Section 4.5 Cultural Resources** for discussion of the regional history of the Project area as it relates to tribal cultural resources.

#### Native American Consultation

The District sent letters containing a brief project description and maps of the APE to the following groups identified by the NAHC in June 2024: the Amah Mutsun Tribal Band, Costanoan Rumsen Carmel

Tribe, Amah Mutsun Tribal Band of Mission San Juan Bautista, Ohlone/Costanoan-Esselen Nation, Tribe of Monterey County, Indian Canyon Mutsun Band of Costanoan, Rumsen Am:a Tur:ataj Ohlone, and Wuksache Indian Tribe/Eshom Valley Band. Requests for consultation were received from the Esselen Tribe of Monterey County, Costanoan Rumsen Carmel Tribe, Indian Canyon Mutsun Band of Costanoan, and Amah Mutsun Tribal Band of Mission San Juan Bautista for consultation in July 2024. Consultations were held with members of the Esselen Tribe of Monterey County on September 5, 2024, the Amah Mutsun Tribal Band of Mission San Juan Bautista on September 12, 2024, the Indian Canyon Mutsun Band of Costanoan on September 17, 2024, and the Costanoan Rumsen Carmel Tribe on July 7, 2025.

The District received recommendations on the Proposed Project from each tribe during the consultation process. The Esselen Tribe of Monterey County requested maps for the Proposed Project to study and potentially provide site-specific recommendations. In addition, the Esselen Tribe of Monterey County requested to be appraised of any changes to the Proposed Project. The Indian Canyon Mutsun Band of Costanoan emphasized the need to indigenous led training and monitoring, recommended the retention of multiple monitoring teams at peak construction periods, and requested that the District not enter into any exclusivity agreements with any single Tribe for monitoring associated with the Proposed Project. The Amah Mutsun Tribal Band of Mission San Juan Bautista recommended the retention of multiple monitoring teams at peak construction periods and holding a pre-construction incidental discovery and sensitivity training for construction personnel involved in ground disturbing activities. In addition, Amah Mutsun Tribal Band of Mission San Juan Bautista requested notification of the Project start date to allow for preparation of monitors and/or training materials. The Costanoan Rumsen Carmel Tribe recommended tribal monitoring, pre-construction training, preparation of an accidental discovery plan, and feedback on survey efforts. The Costanoan Rumsen Carmel Tribe also expressed interest in being part of monitoring and determining monitoring schedules and responsibilities between interested tribes, as well as information on the age of trees to be removed to ensure that they are not old enough to have been culturally modified.

**Regulatory Environment**

Please refer to **Section 4.5** of this document for discussion of applicable the regulatory framework related to tribal cultural resources.

| **Would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | | | | |
| i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or | ☐ | ■ | ☐ | ☐ |

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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. | ☐ | ■ | ☐ | ☐ |

**Impact Discussion**

*a.i. and a.ii, Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or 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.*

The Cultural Resource Inventory included archival research, a background records search at NWIC, a Sacred Lands File search with the NAHC, a visual survey of the Proposed Project area, and a review of the area's geology and soil profiles. The District also completed AB 52 consultation with Native American Tribes. The Proposed Project area yielded positive results from the Sacred Lands site and background research and the survey of the Proposed Project area yielded positive results for Tribal cultural resources. The NWIC records search identified 20 archeological studies within the Proposed Project area and 39 total studies within a 750-foot radius of the Proposed Project APE. Visual surveys did not find evidence of any potential Tribal cultural resources (Achasta, 2025).

Consulting tribes requested preconstruction training for construction workers, presence of a Tribal monitor during ground disturbing construction activities (including multiple monitoring teams during periods where multiple work crews are engaged in ground disturbing activities), and preparation of an accidental discovery plan, and feedback on survey efforts. In accordance with these requests, the District will implement **Mitigation Measure CUL-1** through **CUL-4**, as discussed in **Section 4.5 Cultural Resources**. Additionally, the Proposed Project would implement **Mitigation Measures TCR-1** and **TCR-2**. **Implementation of these mitigation measures** would ensure the Project has a **less-than-significant impact** on Tribal cultural resources.

> **Mitigation Measure TCR-1:** Throughout ground disturbing activities, the District shall retain a Tribal Cultural monitor affiliated with one (1) or more of the Tribes who requested consultation with the District for the Proposed Project to provide monitoring services for each construction crew actively engaged in ground disturbing activities. Tribal monitoring shall be required during all ground disturbing activities associated with the Proposed Project and shall be supplemental to monitoring by a qualified archaeologist. Tribal monitoring responsibilities and schedules shall be determined

between the Tribes and the District prior to the initiation of ground disturbing activities. Tribal Cultural monitors would have the authority to halt work within 50 feet of a potential find until they have evaluated the potential find to be a tribal cultural resource under CEQA.

Tribal monitoring may be reduced in scope and intensity (i.e. spot-checking) if the qualified archaeological monitor, the native American Monitor, and/or the District come to a written agreement that there is a low likelihood of finding tribal resources in specific work areas. All three (3) parties would need to agree to any reduction in the scope and intensity of tribal monitoring, otherwise, monitoring shall continue for all ground-disturbing Project activities.

If the Tribal Cultural monitor determines that any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource or tribal cultural resource under CEQA, he/she shall notify the District and other appropriate parties of the evaluation. Tribal Cultural monitors shall either review and provide edits to mitigation strategies proposed by the project archaeologist or suggest alternate mitigation measures to reduce impacts to tribal cultural resources to a less-than-significant level.

The Tribal Cultural monitor shall contribute to and review the Monitoring Closure Report prepared by the project archaeologist and submitted to the District at the conclusion of ground disturbing construction activities.

**Mitigation Measure TCR-2:** Prior to ground disturbing activities, the District shall retain a tribal cultural resource monitor affiliated with one (1) or more of the Tribes who requested consultation with the District for the Proposed Project to prepare an *Accidental Discovery Plan*. Alternatively, the *Accidental Discovery Plan* can be prepared by a cultural resource specialist in consultation with Tribal representatives if authorized in writing by representatives of all Tribes who requested consultation with the District for the Proposed Project. The *Accidental Discovery Plan* shall include policies and procedures for implementation in the event of the inadvertent discovery of tribal resources during ground disturbing activities. Copies of the *Accidental Discovery Plan* shall be provided to all construction contractors prior to the initiation of ground disturbing activities. A copy of the *Accidental Discovery Plan* shall also be provided to the District to ensure compliance with this mitigation measure.

## 4.19. UTILITIES AND SERVICE SYSTEMS

### Environmental Setting

#### *Water Supply*

The District is the primary water service purveyor to the Proposed Project area. Three (3) public water systems owned and operated by the District provide water service. These water systems include the PWS, the SMWS, and the SWS. Households in the NOML area also rely on two (2) state regulated water systems, nine (9) locally regulated small water systems, and individual private domestic wells. The Proposed Project consists of the consolidation of the PWS, SMWS, and SWS, as well as the various water connections in the NOML area into a single water system, which the District would own and operate.

#### *Wastewater*

The Pajaro County Sanitation District provides wastewater collection, treatment and disposal services to portions of the Proposed Project area. The Pajaro County Sanitation District is also responsible for the maintenance and operation of the sewer system within its wastewater management district borders.

For portions of the Project area outside of the Pajaro County Sanitation District's service area, parcels are largely served by individual septic systems.

***Solid Waste***

Waste Management, Inc. ("WM") provides solid waste and recycling collection services for the Proposed Project area in unincorporated Monterey County. Waste Management's jurisdictional boundaries include the unincorporated areas of Moss Landing. Solid waste is transported to and disposed of at the Monterey Peninsula Landfill located 14201 Del Monte Boulevard in unincorporated Monterey County, California. The Monterey Peninsula Landfill has a maximum permitted capacity of 49,700,000 cubic yards, a 3,500 Tons per Day capacity, and is estimated to have remaining capacity of 48,560,000 cubic yards (CalRecycle, 2024).

***Electric/Gas/Power***

PG&E provides electricity and natural gas throughout Monterey County, and thus would be the energy utility provider of the Proposed Project area. Energy from renewable sources would be procured by 3CE and distributed through PG&E.

**Regulatory Environment**

***State***

***Assembly Bill 939*:** California AB 939 established the California Integrated Waste Management Board ("CalRecycle"), which required all California counties to prepare Integrated Waste Management Plans. Additionally, AB 939 required all municipalities to divert 50 percent of their waste stream by the year 2000.

***California Green Building Standards Code*:** In 2022, California adopted the most recent version of CalGreen, which establishes mandatory green building standards for new and remodeled structures in California. These standards include a mandatory set of guidelines and more stringent voluntary measures for new construction projects, to achieve specific green building performance levels as follows:

- Reduce indoor water use by 20 percent;
- Reduce wastewater by 20 percent;
- Recycle and/or salvage 50 percent of nonhazardous construction and demolition debris; and
- Provide readily accessible areas for recycling by occupant.

***Local***

***2010 Monterey County General Plan:*** The following policies from the 2010 Monterey County General Plan would be applicable to the inland portions of the Proposed Project.

**Policy PS-5.3** Programs to facilitate recycling/diversion of waste materials at new construction sites, demolition projects, and remodeling projects shall be implemented.

**Policy PS-5.4** The maximum use of solid waste source reduction, reuse, recycling, composting, and environmentally-safe transformation of wastes, consistent with the protection of the public's health and safety, shall be promoted.

***North County Area Plan*:** The following policy provided in the North County Area Plan is applicable to the inland portions of the Proposed Project.

**NC-5.2** Water development projects that can offer a viable water supply to water-deficient areas in North County shall be a high priority.

***1982 Monterey County General Plan*:** The following policies from the 1982 Monterey County General Plan would be applicable to the coastal portions of the Proposed Project.

**Policy 53.1.5** Proliferation of wells, serving residential, commercial, and industrial uses, into common water tables shall be discouraged.

**Policy 56.2.1** The County shall, in accordance with the Monterey County Subdivision Ordinance, require that all new utility lines be placed underground.

***North County LUP*:** The following utilities policies provided in the North County LUP are applicable to the coastal portions of the Proposed Project:

**2.5.3.A.1:** The County's Policy shall be to protect groundwater supplies for coastal priority agricultural uses with emphasis on agricultural lands located in areas designated in the plan for exclusive agricultural use.

**2.5.3.A.3:** The County shall regulate construction of new wells or intensification of use of existing water supplies by permit. Applications shall be regulated to prevent adverse individual and cumulative impacts upon groundwater resources.

***Monterey County Code:*** The County of Monterey Zoning Ordinance (Title 20) provides a mechanism for obtaining permits for public utility facilities within the Coastal Zone. In addition, Title 20 regulates placement of utilities and utility infrastructure for areas inside the Coastal Zone, including requiring utility infrastructure to be placed underground when feasible.

The County of Monterey Zoning Ordinance (Title 21) provides a mechanism for obtaining permits for public utility facilities outside of the Coastal Zone. In addition, Title 21 regulates placement of utilities and utility infrastructure for areas outside of the Coastal Zone, including requiring utility infrastructure to be placed underground when feasible.

| **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 would cause significant environmental effects? | ☐ | ■ | ☐ | ☐ |
| b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years? | ☐ | ☐ | ■ | ☐ |

| Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ■ | ☐ |
| d) Generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | ☐ | ☐ | ■ | ☐ |
| e) Comply with federal, state, and local management and reduction statuses and regulations related to solid waste? | ☐ | ☐ | ■ | ☐ |

**Impact Discussion**

*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 would cause significant environmental effects?*

The Proposed Project consists of water systems consolidation and construction of water distribution improvements and would extend water infrastructure within the Project area. The Proposed Project would to serve existing residences within the Proposed Project area and does not propose new residential or commercial development. The Project would not generate any additional wastewater or exceed or impact wastewater treatment requirements of the applicable RWQCB. The Project would not increase wastewater generation. The Project would not require additional construction or relocation of other types of utility facilities which would cause significant environmental effects. The potential adverse effects associated with the extension of water infrastructure included in the Proposed Project are evaluated in this IS/MND, and mitigation measures (**Mitigation Measures BIO-1** through **BIO-14, CUL-1** through **CUL-4**, **HAZ-1, HYD-1, NOS-1** and **NOS-2**, and **TCR-1** and **TCR-2**) are identified throughout this document to reduce impacts to a less-than-significant level. No additional impacts would occur from extension of water infrastructure beyond those described throughout this document. This represents a **less-than-significant impact with incorporation of mitigation**.

*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?*

The Proposed Project consists of water systems consolidation and construction of water system and treatment improvements. The existing water systems suffer system deficiencies related to water quality, supply, and reliability issues. The Proposed Project consists of the consolidation of the PWS, SMWS, and SWS, as well as the various water connections in the NOML area into a single water system that the District would own and operate. Water service in the Project area is served by three (3) public water systems owned and operated by the District, two (2) state regulated water systems, nine (9) locally regulated small water systems, and individual private domestic wells. The Proposed Project includes the destruction of the Springfield Mobile Home Park Well, SMWS Well No. 1, and SMWS Well No. 2.

The Proposed Project would ultimately provide service connections water from the following sources: 1) the existing Pajaro Well Site No. 1, treated by the new Iron and Manganese Treatment System, located at the District's offices at 136 San Juan Road, 2) Pajaro Well No. 2 located near the intersection of Railroad Avenue and Allison Road, and 3) Springfield Well No. 2. The Peak Hour Demand ("PHD") of the consolidated service area would be approximately 872 gpm. The combined pumping capacity of the consolidated system would be 2,500 gpm, which would allow for sufficient water supply to serve the consolidated service area.

The District has sufficient water supplies to serve the new connections added under each phase of the Proposed Project during normal, dry, and multiple dry years. Water elevations in the Pajaro Valley Subbasin have increased steadily since the 2017 water year (PVWMA, 2024). In addition, the Proposed Project includes improved storage tanks to further improve water reliability. The Proposed Project would reduce vulnerability to seawater intrusion by utilizing inland sources of supply as well as improve water supply reliability by consolidating multiple systems with established sources of supply and operational redundancies. For these reasons, the Proposed Project would have a net beneficial impact; this impact is **less-than-significant**.

*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?*

The Proposed Project would not result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the Proposed Project. The Proposed Project consists of multiple water systems consolidation, and treatment and distribution improvements. The primary goal of the Project is to address issues related to water quality, water supply reliability, and vulnerabilities to failure. While the operation of the Iron and Manganese Treatment System would generate wastewater discharges to wastewater infrastructure operated by the Pajaro County Sanitation District, these discharges would be accommodated by existing infrastructure and would be subject to the conditions of an approved Industrial Wastewater Discharge Permit from the Pajaro County Sanitation District. Therefore, Proposed Project would not require wastewater service or expansion. Due to the nature of the Proposed Project, this impact is **less-than-significant**.

*d. and e. 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? Would the project comply with federal, state, and local management and reduction statuses and regulations related to solid waste?*

The Proposed Project would not generate significant solid waste. The Proposed Project would comply with all federal, state, and local statues and solid waste regulations. All waste generated in connection with the Project would be managed in accordance with all applicable federal, state, and local statutes and regulations to the extent they are applicable to the Proposed Project. Solid waste generated from the Project would be disposed of offsite at the Monterey County Regional Waste Management District's Monterey Peninsula Landfill located at 14201 Del Monte Boulevard in unincorporated Monterey County. The Monterey Peninsula Landfill has a maximum permitted capacity of 49,700,000 cubic yards, a 3,500 Tons per Day capacity, and is estimated to have a remaining capacity of 48,560,000 cubic yards (CalRecycle, 2024). Since the project would require compliance with all local, state, and federal regulations and conditions, there would be no violation of the regulations concerning solid waste disposal as conditions for approval. Therefore, impacts regarding solid waste generation and disposal would be **less-than-significant**.

## 4.20. WILDFIRE

### Environmental Setting

The California Department of Forestry and Fire Protection ("CALFIRE") defines FHSZs based on the presence of fire-prone vegetation, climate, topography, assets at risk (e.g., high population centers), and a fire protection agency's ability to provide service to the area (CALFIRE, 2024). CALFIRE designates FHSZs as "Very High," "High," or "Moderate." The Proposed Project is partially located within a Moderate FHSZ in an LRA. Specifically, the Sunny Mesa Tank Site, Transmission Booster Pump Station Site, and segments of the Transmission Main along Salinas Road and Elkhorn Road are in the Moderate FHSZ. Additionally, the Transmission Main component of the Proposed Project is located approximately 0.05 miles to the west of a Moderate and Very High FHSZ in an SRA, on the opposite side of Elkhorn Road (CALFIRE, 2025). While over half of the land area in Monterey County is mountainous and covered with highly combustible vegetation, the Proposed Project area consists of previously disturbed areas consisting of roadway ROWs surrounded by rural residential and agricultural land uses. (Monterey County, 2010).

### Regulatory Setting

#### *Local*

***2010 Monterey County General Plan*:** The following policies from the 2010 Monterey County General Plan would be applicable to the inland portions of the Proposed Project.

**Policy S-4.13** The County shall require all new development to have adequate water available for fire suppression. The water system shall comply with Monterey County Code Chapter 18.56, NFPA Standard 1142, or other nationally recognized standard. The fire authority having jurisdiction, the County Departments of Planning and Building Services, and all other regulatory agencies shall determine the adequacy and location of water supply and/or storage to be provided.

**Policy S-4.22** Every building, structure, and/or development shall be constructed to meet the minimum requirements specified in the current adopted state building code, state fire code, Monterey County Code Chapter 18.56, and other nationally recognized standards.

**Policy S-4.26** When public facilities and above-ground utilities are located in high or very high fire hazard areas, special precautions shall be taken to mitigate the risks from wildfire and to ensure uninterrupted operation.

***North County Area Plan*:** None of the policies provided in the North County Area Plan are applicable to the inland portions of the Proposed Project.

***1982 Monterey County General Plan*:** The following policies from the 1982 Monterey County General Plan would be applicable to the coastal portions of the Proposed Project.

**Policy 17.3.4** The County shall require all new development to have adequate water available for fire suppression. Water availability can be provided from a conventional water system; from an approved alternative water system if within 300 feet of a habitable structure; by the firefighting equipment of the fire district within which the property is located; or by an individual water storage facility--water tank, swimming pool, etc.--on the property itself. The fire and planning departments shall determine the adequacy and location of individual water storage to be provided.

**Policy 17.3.5** Water systems constructed, extended or modified to serve a new land use or a change in land use or an intensification of land use shall be designed to meet, in addition to the average daily demand, the standards shown in Table 2, subject only to changes authorized pursuant to Policy Number 17.4.2.

**Policy 17.4.2** Every building, structure and/or development shall be constructed to meet, at minimum, the requirements specified in Volume I of the current edition of the Uniform Building Code, Fire Hazards Policy 17.3.5, and Table 2 of this general plan. The chief of the fire agency having jurisdiction may recommend to the appropriate decision-making authority a variation of the general plan fire hazard policies and Table 2 (but not U.B.C. standards) for such development where, in his opinion, the fire safety of the County and adjoining and nearby properties and improvements is not materially impaired by such variation.

***North County LUP*:** There are no wildfire policies provided in the North County LUP relevant to the coastal portions of the Proposed Project.

***Monterey County Code:*** The County of Monterey Zoning Ordinance (Title 18) provides regulations for wildfire protection areas in unincorporated Monterey County. Title 18 includes requirements for setback in local and state fire severity areas, including emergency water standards and fuel modification standards.

| **If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a) Substantially impair an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ■ | ☐ |
| b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | ☐ | ☐ | ■ | ☐ |
| c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | ☐ | ☐ | ☐ | ■ |
| d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | ☐ | ☐ | ■ | ☐ |

**Impact Discussion**

*a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

The Proposed Project consists of the consolidation of several water systems and does not include any characteristics or features that would interfere with an adopted emergency response plan or emergency

evacuation plan. Impacts related to emergency response and/or evacuation plans during construction and operation are discussed below.

***Construction***

The Proposed Project would result in temporary construction related traffic. During construction, the Proposed Project would implement two (2) Traffic Control Plans, one (1) for Caltrans and one (1) for Monterey County, to ensure the safe passage of traffic, including emergency vehicles, through construction areas. In addition, due to the temporary duration of construction activity and existing capacity on local roadways, construction would not conflict with any applicable plan, policy or ordinance related to the transportation system that could result in a substantial adverse environmental effect. Therefore, the Proposed Project would have a **less-than-significant impact** during construction.

***Operation***

The majority of the Proposed Project components would primarily be located underground. The Proposed Project would require one (1) additional daily traffic trip compared to existing conditions related to regular maintenance and testing activities. This increase in traffic during operation would not generate substantial new vehicle traffic that would substantially impair an adopted emergency response plan or emergency evacuation plan. Once operational, the Proposed Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. The Proposed Project would place the distribution system pipelines underground and these components would not impair an adopted emergency response plan or emergency evacuation plan. The aboveground components of the Proposed Project would be located outside of the public roadways and would not interfere with an adopted emergency response plan or emergency evacuation plan. For these reasons, the Proposed Project would have a **less-than-significant impact** during operation.

*b. 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?*

The Proposed Project area is located within existing roadway ROWs and within an area that is primarily residential development, within an agricultural area. The Proposed Project area is relatively flat and lacks physical and biological features that would be conducive to wildland fire. The Proposed Project area is located within an LRA, part of which CALFIRE designates as a Moderate FHSZ. The Sunny Mesa Tank Site, Transmission Booster Pump Station Site, and segments of the Transmission Main along Salinas Road and Elkhorn Road are located in the Moderate FHSZ. Additionally, the Transmission Main within Salinas Road and Elkhorn Road is located approximately 0.05 miles from an SRA FHSZ. While the Proposed Project is located in a Moderate FHSZ, the Project is sited in an LRA and outside of both an SRA and a Very High FHSZ. The Proposed Project is a water system consolidation and improvement project and would not exacerbate wildfire risks and expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Therefore, the Proposed Project would have a **less-than-significant impact** regarding exposing project occupants to pollutant concentrations from a wildfire or to the uncontrolled spread of a wildfire.

*c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

The Proposed Project is a water system consolidation and improvement project located within existing roadway ROWs and within an area that is primarily residential development, within an agricultural area. The Proposed Project would include the installation of emergency fire hydrants within the community, thereby allowing for more efficient firefighting in the unlikely event of a wildfire. The Proposed Project does not include infrastructure facilities that would exacerbate fire risk, and, therefore, **no impact** would occur.

*d. 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?*

The Proposed Project area is relatively flat and is not located in the vicinity of slopes that would be susceptible to landslides or downstream flooding. The individual aboveground components of the Proposed Project would be located within flat areas. While the Proposed Project would introduce new impervious surfaces that could result in drainage changes under post-fire conditions, components of the Proposed Project located in flood hazard zones, including the Iron and Manganese Treatment system, would include drainage management features to capture and retain stormwater produced on the sites. The underground components of the Proposed Project would not result in the risk of wildfire and would not expose people or structures to significant risks under post-fire conditions. The Proposed Project is not located within an SRA or a Very High FHSZ. Therefore, the Proposed Project would have a **less-than-significant impact** regarding exposing people or structures to post-fire slope instability, landslides, flooding, or drainage changes.

## 4.21. MANDATORY FINDINGS OF SIGNIFICANCE

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

| Does the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☐ | ■ | ☐ |

**Impact Discussion**

*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?*

The Proposed Project would not 1) degrade the quality of environment, 2) substantially reduce the habitat of a fish or wildlife species, 3) cause a fish or wildlife population to drop below self-sustaining levels, 4) threaten or eliminate a plant or animal community, 5) reduce the number or restrict the range of a rare or endangered plant or animal, 6) eliminate important examples of major periods of California history or precontact history. The Proposed Project would result in construction-related impacts that would be mitigated to a less than significant level through the incorporated of mitigation measures identified in this IS/MND. All operational impacts associated with the Proposed Project would also be reduced to less-than-significant though the incorporation and implementation of mitigation measures. This represents a **less-than-significant impact**. No additional mitigation is necessary beyond mitigation identified in each of the respective topical CEQA sections contained in this IS/MND.

*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.)?*

To determine whether a cumulative effect requires an Environmental Impact Report, the lead agency shall consider whether the impact is significant and whether the effects of the project are cumulatively considerable (CEQA Guidelines Section 15064(h)(1)). This IS/MND contains mitigation to ensure that all potential Project-level impacts are minimized to a less than significant level. CEQA allows a lead agency to determine that a project's contribution to a potential cumulative impact is not considerable and thus not significant when mitigation measures identified in the initial study will render those potential impacts less than considerable (CEQA Guidelines 15064(h)(2)). The Proposed Project would consolidate the SWS, SMWS, PWS, and various small water systems and individual residential connections into a single water system operated and maintained by the District. The Proposed Project would provide a centralized, high-quality source of potable water for the Project area. As discussed throughout this IS/MND, the District has designed the Proposed Project to serve only existing residential connections and not facilitate population growth. The Proposed Project would occur partially in the same area as the SWS Project being undertaken by the District. However, improvements associated with that project would be largely complete by the time that Phase 2 of the Proposed Project begins construction and would not result in cumulative impacts. Therefore, the Proposed Project would not cause a cumulative effect when considered with other future planned developments. Where this IS/MND identified

potential construction and operational impacts, mitigation measures were established to minimize impacts to a **less-than-significant** level.

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

The Proposed Project would not have a substantial adverse effect on human beings, either directly or indirectly. This IS/MND contains mitigation measures to ensure that the Proposed Project would minimize all potential impacts to a **less-than-significant** level. The Proposed Project would have a beneficial impact by providing a reliable and clean source of potable water to residential connections within the Project area.

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# Chapter 5. References

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# Appendix A
# Land Evaluation Site Assessment

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**DRAFT LESA 8-14-2025**

**PSMS IS/MND**

**Site Data**:

Farmland Classification: Farmland of Statewide Importance

Site Acreage: 0.4 acres

Soil type: Elkhorn fine sandy loam

Soil Unit: EdC

Land capability classification (irrigated): 2e

Water availability: Irrigated

Surrounding farmland?: Yes

Surrounding land use types: Agricultural, rural residential.

Storie Index:

- Factor #1 – Soil Profile Group. Score: 100 Reasoning: Class II soils, with depth to bedrock listed as more than 80 in = 200+CMs = 100 score.
- Factor #2 – Surface Texture. Score: 100 Reasoning: Soils consist of Fine Sandy Loam
- Factor #3 – Slope. Score: 90 Reasoning: Slopes noted to be within 5 to 9%. GIS data shows gradual slope on site, so not completely flat. Figure 4 of the Storie Index update shows approximately 9 score at where the 9% slope mark should be.
- Factor #X – Dynamic Properties. Score: 100 Reasoning:100 for well drained. PH is in the middle range so also 100.

Storie Index Rating = [(Factor A/100) x (Factor B/100) x (Factor C/100) x (Factor X/100)] x 100

Storie Index Rating = [(100/100) x (100/100) x (90/100) x (100/100)] x 100 = 90

LESA Model Rating Factors

Land Evaluation Factors:

- Land Capability Classification (25%)
- Storie Index rating (25%)
    - **Land Evaluation Subtotal (50%)**

Site Assessment Factors:

- Project Size (15%)
- Water Resource Availability (15%)
- Surrounding Agricultural Lands (15%)
- Surrounding Protected Resource Lands (5%)
    - **Site Assessment Subtotal (50%)**

**LESA Score**: 0.637

60 to 79 Points Considered significant unless either LE or SA subscore is less than 20 points.

**Conclusion**: Less than Significant Impact. SA subscore is below 20 points.

***NOTES***

## Calculation of the Land Evaluation (LE) Score

### Part 1. Land Capability Classification (LCC) Score:

(1) Determine the total acreage of the project.
(2) Determine the soil types within the project area and enter them in **Column A** of the **Land Evaluation Worksheet** provided on page 2-A.
(3) Calculate the total acres of each soil type and enter the amounts in **Column B**.
(4) Divide the acres of each soil type (**Column B**) by the total acreage to determine the proportion of each soil type present. Enter the proportion of each soil type in **Column C**.
(5) Determine the LCC for each soil type from the applicable Soil Survey and enter it in **Column D**.
(6) From the LCC Scoring Table below, determine the point rating corresponding to the LCC for each soil type and enter it in **Column E**.

LCC Scoring Table

| LCC Class | I | IIe | IIs,w | IIIe | IIIs,w | IVe | IVs,w | V | VI | VII | VIII |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Points | 100 | 90 | 80 | 70 | 60 | 50 | 40 | 30 | 20 | 10 | 0 |

(7) Multiply the proportion of each soil type (**Column C**) by the point score (**Column E**) and enter the resulting scores in **Column F**.
(8) Sum the LCC scores in **Column F**.
(9) Enter the LCC score in box <1> of the **Final LESA Score Sheet** on page 10-A.

### Part 2. Storie Index Score:

(1) Determine the Storie Index rating for each soil type and enter it in **Column G**.
(2) Multiply the proportion of each soil type (**Column C**) by the Storie Index rating (**Column G**) and enter the scores in **Column H**.
(3) Sum the Storie Index scores in **Column H** to gain the Storie Index Score.
(4) Enter the Storie Index Score in box <2> of the **Final LESA Score Sheet** on page 10-A.

**Land Evaluation Worksheet**

**Land Capability Classification (LCC) and Storie Index Scores**

| A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|
| Soil Map Unit | Project Acres | Proportion of Project Area | LCC | LCC Rating | LCC Score | Storie Index | Storie Index Score |
| EdC | 0.4 | 100% | 2e | 90 | 90 | | 90 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| ***Totals*** | | (Must Sum to 1.0) | | ***LCC Total Score*** | | ***Storie Index Total Score*** | |

**Site Assessment Worksheet 1.**

**Project Size Score**

| | I | J | K |
|---|---|---|---|
| | LCC Class I - II | LCC Class III | LCC Class IV - VIII |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| ***Total Acres*** | | | |
| ***Project Size Scores*** | | | |

***Highest Project Size Score*** 

***NOTES***

## Calculation of the Site Assessment (SA) Score

### Part 1. Project Size Score:.

(1) Using **Site Assessment Worksheet 1** provided on page 2-A, enter the acreage of each soil type from **Column B** in the **Column - I, J or K** - that corresponds to the LCC for that soil. (Note: While the Project Size Score is a component of the Site Assessment calculations, the score sheet is an extension of data collected in the Land Evaluation Worksheet, and is therefore displayed beside it).
(2) Sum **Column I** to determine the total amount of class I and II soils on the project site.
(3) Sum **Column J** to determine the total amount of class III soils on the project site.
(4) Sum **Column K** to determine the total amount of class IV and lower soils on the project site.
(5) Compare the total score for each LCC group in the Project Size Scoring Table below and determine which group receives the highest score.

Project Size Scoring Table

| **Class I or II** | | **Class III** | | **Class IV or Lower** | |
|---|---|---|---|---|---|
| Acreage | Points | Acreage | Points | Acreage | Points |
| >80 | 100 | >160 | 100 | >320 | 100 |
| 60-79 | 90 | 120-159 | 90 | 240-319 | 80 |
| 40-59 | 80 | 80-119 | 80 | 160-239 | 60 |
| 20-39 | 50 | 60-79 | 70 | 100-159 | 40 |
| 10-19 | 30 | 40-59 | 60 | 40-99 | 20 |
| 10< | 0 | 20-39 | 30 | 40< | 0 |
| | | 10-19 | 10 | | |
| | | 10< | 0 | | |

(6) Enter the **Project Size Score** (the highest score from the three LCC categories) in box <3> of the **Final LESA Score Sheet** on page 10-A.

***NOTES***

## Part 2. Water Resource Availability Score:

(1) Determine the type(s) of irrigation present on the project site, including a determination of whether there is dryland agricultural activity as well.

(2) Divide the site into portions according to the type or types of irrigation or dryland cropping that is available in each portion. Enter this information in **Column B** of **Site Assessment Worksheet 2. - Water Resources Availability**.

(3) Determine the proportion of the total site represented for each portion identified, and enter this information in **Column C**.

(4) Using the Water Resources Availability Scoring Table, identify the option that is most applicable for each portion, based upon the feasibility of irrigation in drought and non-drought years, and whether physical or economic restrictions are likely to exist. Enter the applicable Water Resource Availability Score into **Column D**.

(5) Multiply the Water Resource Availability Score for each portion by the proportion of the project area it represents to determine the weighted score for each portion in **Column E**.

(6) Sum the scores for all portions to determine the project's total Water Resources Availability Score

(7) Enter the Water Resource Availability Score in box <4> of the **Final LESA Score Sheet** on page 10-A.

**Site Assessment Worksheet 2. - Water Resources Availability**

| A | B | C | D | E |
|---|---|---|---|---|
| Project Portion | Water Source | Proportion of Project Area | Water Availability Score | Weighted Availability Score (C x D) |
| 1 | Well | 1.0 | 0.65 | 0.65 |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| | | (Must Sum to 1.0) | ***Total Water Resource Score*** | |

**Water Resource Availability Scoring Table**

| Option | Non-Drought Years | | | Drought Years | | | WATER RESOURCE SCORE |
|---|---|---|---|---|---|---|---|
| | RESTRICTIONS | | | RESTRICTIONS | | | |
| | Irrigated Production Feasible? | Physical Restrictions ? | Economic Restrictions ? | Irrigated Production Feasible? | Physical Restrictions ? | Economic Restrictions ? | |
| 1 | YES | NO | NO | YES | NO | NO | 100 |
| 2 | YES | NO | NO | YES | NO | YES | 95 |
| 3 | YES | NO | YES | YES | NO | YES | 90 |
| 4 | YES | NO | NO | YES | YES | NO | 85 |
| 5 | YES | NO | NO | YES | YES | YES | 80 |
| 6 | YES | YES | NO | YES | YES | NO | 75 |
| 7 | YES | YES | YES | YES | YES | YES | 65 |
| 8 | YES | NO | NO | NO | -- -- | -- -- | 50 |
| 9 | YES | NO | YES | NO | -- -- | -- -- | 45 |
| 10 | YES | YES | NO | NO | -- -- | -- -- | 35 |
| 11 | YES | YES | YES | NO | -- -- | -- -- | 30 |
| 12 | Irrigated production not feasible, but rainfall adequate for dryland production in both drought and non-drought years | | | | | | 25 |
| 13 | Irrigated production not feasible, but rainfall adequate for dryland production in non-drought years (but not in drought years) | | | | | | 20 |
| 14 | Neither irrigated nor dryland production feasible | | | | | | 0 |

***NOTES***

## Part 3. Surrounding Agricultural Land Use Score:

(1) Calculate the project's Zone of Influence (ZOI) as follows:

(a) a rectangle is drawn around the project such that the rectangle is the smallest that can completely encompass the project area.

(b) a second rectangle is then drawn which extends one quarter mile on all sides beyond the first rectangle.

(c) The ZOI includes all parcels that are contained within or are intersected by the second rectangle, less the area of the project itself.

(2) Sum the area of all parcels to determine the total acreage of the ZOI.

(3) Determine which parcels are in agricultural use and sum the areas of these parcels

(4) Divide the area in agriculture found in step (3) by the total area of the ZOI found in step (2) to determine the percent of the ZOI that is in agricultural use.

(5) Determine the Surrounding Agricultural Land Score utilizing the Surrounding Agricultural Land Scoring Table below.

**Surrounding Agricultural Land Scoring Table**

| Percent of ZOI in Agriculture | Surrounding Agricultural Land Score |
|---|---|
| 90-100 | 100 |
| 80-89 | 90 |
| 75-79 | 80 |
| 70-74 | 70 |
| 65-69 | 60 |
| 60-64 | 50 |
| 55-59 | 40 |
| 50-54 | 30 |
| 45-49 | 20 |
| 40-44 | 10 |
| <40 | 0 |

(5) Enter the Surrounding Agricultural Land Score in box <5> of the **Final LESA Score Sheet** on page 10-A.

**Site Assessment Worksheet 3.**
**Surrounding Agricultural Land and Surrounding Protected Resource Land**

| A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|
| **Zone of Influence** | | | | | | |
| Total Acres | Acres in Agriculture | Acres of Protected Resource Land | Percent in Agriculture (A/B) | Percent Protected Resource Land (A/C) | Surrounding Agricultural Land Score (From Table) | Surrounding Protected Resource Land Score (From Table) |
| 426 | 288 | 0 | 67% | 0 | 60 | 0 |

***NOTES***

## Part 4. Protected Resource Lands Score:

The Protected Resource Lands scoring relies upon the same Zone of Influence information gathered in Part 3, and figures are entered in Site Assessment Worksheet 3, which combines the surrounding agricultural and protected lands calculations.

(1) Use the total area of the ZOI calculated in Part 3. for the Surrounding Agricultural Land Use score.

(2) Sum the area of those parcels within the ZOI that are protected resource lands, as defined in the California Agricultural LESA Guidelines.

(3) Divide the area that is determined to be protected in Step (2) by the total acreage of the ZOI to determine the percentage of the surrounding area that is under resource protection.

(4) Determine the Surrounding Protected Resource Land Score utilizing the Surrounding Protected Resource Land Scoring Table below.

**Surrounding Protected Resource Land Scoring Table**

| Percent of ZOI Protected | Protected Resource Land Score |
|---|---|
| 90-100 | 100 |
| 80-89 | 90 |
| 75-79 | 80 |
| 70-74 | 70 |
| 65-69 | 60 |
| 60-64 | 50 |
| 55-59 | 40 |
| 50-54 | 30 |
| 45-49 | 20 |
| 40-44 | 10 |
| <40 | 0 |

(5) Enter the Protected Resource Land score in box <6> of the **Final LESA Score Sheet** on page 10-A.

***NOTES***

# Final LESA Score Sheet

**Calculation of the Final LESA Score:**

(1) Multiply each factor score by the factor weight to determine the weighted score and enter in Weighted Factor Scores column.
(2) Sum the weighted factor scores for the LE factors to determine the total LE score for the project.
(3) Sum the weighted factor scores for the SA factors to determine the total SA score for the project.
(4) Sum the total LE and SA scores to determine the Final LESA Score for the project.

| | Factor Scores | Factor Weight | Weighted Factor Scores |
|---|---|---|---|
| **LE Factors** | | | |
| Land Capability Classification | <1> 90 | 0.25 | 22.5 |
| Storie Index | <2> 90 | 0.25 | 22.5 |
| *LE Subtotal* | | ***0.50*** | .45 |
| **SA Factors** | | | |
| Project Size | <3> 0 | 0.15 | 0 |
| Water Resource Availability | <4> 0.65 | 0.15 | 0.097 |
| Surrounding Agricultural Land | <5> 0.6 | 0.15 | 0.09 |
| Protected Resource Land | <6> 0 | 0.05 | 0 |
| *SA Subtotal* | | ***0.50*** | 0.187 |
| | | **Final LESA Score** | 63.7 |

For further information on the scoring thresholds under the California Agricultural LESA Model, consult Section 4 of the Instruction Manual.

# Appendix B
# CalEEMod Air Quality Modeling

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**Denise Duffy & Associates, Inc.**
PLANNING AND ENVIRONMENTAL CONSULTING

# MEMORANDUM

**TO:** Judith Vazquez-Varela, General Manager, Pajaro/Sunny Mesa Community Services District
Nick Panofsky, PE, Vice President - Water Resources, MNS Engineers, Inc.
Jordyn Arreola, PE, Senior Project Engineer, MNS Engineers, Inc.

**CC**: Denise Duffy, Principal, Denise Duffy & Associates
Robyn Simpson, Deputy Project Manager, Denise Duffy & Associates
Conor O'Toole, Deputy Project Manager, Denise Duffy & Associates

**FROM:** Luke Hiserman, Assistant Planner, Denise Duffy & Associates

**DATE:** June 18, 2025

**SUBJECT:** Pajaro/Sunny Mesa System Consolidation Project

## I. Introduction

This memorandum presents the results of Denise Duffy & Associates' ("DD&A") Air Quality ("AQ") and Greenhouse Gas ("GHG") modeling for the Pajaro/Sunny Mesa System Consolidation Project ("proposed project") overseen by the Pajaro/Sunny Mesa Community Services District ("District"). This memorandum includes 1) a brief description of the proposed project and regulatory background, 2) the AQ and GHG modeling results, and 3) a conclusion. Additionally, the *Pajaro/Sunny Mesa System Consolidation Project Detailed Report* is attached to this memorandum and presents a detailed list of data inputs and estimated air quality and GHG emissions for the proposed project.

## II. Proposed Project & Regulatory Background

The proposed project is a two (2)-phased project consisting of the consolidation of the Pajaro Water System ("PWS"), Sunny Mesa Water System ("SMWS"), Springfield Water System ("SWS"), and various water connections in the North of Moss Landing ("NOML") area into a single water system, which the District would own. Phase 1 of the proposed project would be funded by Community Change Grant funds from the U.S. Environmental Protection Agency ("EPA") and would consist of an Iron and Manganese Treatment System at the existing District offices, consolidation of pipelines, or Transmission Mains, connecting the PWS to the SMWS and the SMWS to the SWS, Transmission Booster Pump Station to convey water from PWS to SMWS, rehabilitation of the PWS Tank, destruction of the SMWS wells No. 1 and No. 2, radio meter upgrades, and installation of a System Controls and Supervisory Control and Data Acquisition ("SCADA") system. The California Safe Drinking Water State Revolving Fund ("CA SRF") from the State Water Resources Control Board ("SWRCB") would fund Phase 2 of the proposed project, which would consist of the Springfield Expansion Distribution Main, the Bluff/Jensen Distribution Main, and lateral service connections located on private property.

Once operational, the proposed project would serve approximately 981 total connections within the project area. The proposed project has been sized to accommodate existing connections within the area by transferring water service to the consolidated water system. The proposed project would be supplied water from a total of three (3) sources, comprised of Pajaro Wells No. 1 and No. 2 and Springfield Well No. 2. The proposed project is not intended to facilitate future residential or commercial development. Furthermore, the proposed project includes additional infrastructure improvements to facilitate Operations and Maintenance ("O&M") of the new water system.

Below is a synopsis of the AQ and GHG thresholds of significance used to determine the significance of a project's environmental effects.

### *Air Quality*

The proposed project is in the North Central Coast Air Basin ("NCCAB"), which encompasses Santa Cruz, San Benito, and Monterey counties. The NCCAB is under the jurisdiction of the Monterey Bay Air Resources District ("MBARD"). MBARD is responsible for producing an Air Quality Management Plan ("AQMP") that reports air quality and regulates stationary air pollution sources throughout the NCCAB. MBARD is also responsible for measuring the concentration of pollutants and comparing those concentrations against the Ambient Air Quality Standards ("AAQS"). AAQS establish levels of air quality maintenance required to protect the public from the adverse effects of air pollution and are established for "criteria air pollutants," which include ozone, carbon monoxide, particulate matter less than 10 microns in diameter ("$PM_{10}$"), fine particulate matter less than 2.5 microns in diameter ("$PM_{2.5}$"), nitrogen dioxide, sulfur dioxide, and lead. MBARD is responsible for monitoring criteria pollutants to determine whether they are in attainment or not in attainment with the AQMP. **Table 1** illustrates the attainment status for criteria pollutants.

**Table 1**
**Attainment Status for the NCCAB**

| Pollutants | State Designation | Federal Designation |
|---|---|---|
| Ozone ($O_3$) | Nonattainment – Transitional | Attainment |
| Inhalable Particulates ($PM_{10}$) | Nonattainment | Attainment |
| Fine Particulates ($PM_{2.5}$) | Attainment | Attainment |
| Carbon Monoxide (CO) | Monterey Co. – Attainment | Attainment |
| Carbon Monoxide (CO) | San Benito Co. – Unclassified | Attainment |
| Carbon Monoxide (CO) | Santa Cruz Co. – Unclassified | Attainment |
| Nitrogen Dioxide ($NO_2$) | Attainment | Attainment |
| Sulfur Dioxide ($SO_2$) | Attainment | Attainment |
| Lead | Attainment | Attainment |

Source: Monterey Bay Air Resources District, 2017. 2012 – 2015 Air Quality Management Plan

MBARD has set air quality thresholds of significance for the evaluation of projects. **Table 2** illustrates the thresholds of significance used to determine if a project would have a significant air quality effect during construction.

**Table 2**
**Thresholds of Significance Construction Emissions**

| Pollutant | Threshold of Significance (lb./day) |
|---|---|
| Nitrogen Oxides ($NO_x$) | 137 |
| Reactive Organic Gases (ROG) | 137 |
| Respirable Particular Matter ($PM_{10}$) | 82 |
| Fine Particulate Matter ($PM_{2.5}$) | 55 |
| Carbon Monoxide (CO) | 550 |

Source: Monterey Bay Unified Air Pollution Control District, 2016. Guidelines for Implementing the California Environmental Quality Act.

**Table 3** illustrates the thresholds of significance used to determine if a project would have a significant air quality effect on the environment during operation.

**Table 3**
**Thresholds of Significance Operational Emissions**

| Pollutant | Threshold of Significance (lb./day) |
|---|---|
| Nitrogen Oxides ($NO_x$) | 137 |
| Reactive Organic Gases (ROG) | 137 |
| Respirable Particular Matter ($PM_{10}$) | 82 |
| Fine Particulate Matter ($PM_{2.5}$) | 55 |
| Carbon Monoxide (CO) | 550 |

Source: Monterey Bay Unified Air Pollution Control District, 2016. Guidelines for Implementing the California Environmental Quality Act.

### *Greenhouse Gases*

Both naturally occurring and anthropogenic-generated atmospheric gasses effect global temperatures. These gases include water vapor, carbon dioxide, methane, and nitrous oxide (Intergovernmental Panel on Climate Change, 2007). Gases that trap heat in the atmosphere are known as greenhouse gases ("GHGs"). Solar radiation enters the earth's atmosphere from space, and a portion of the radiation is absorbed at the surface. The earth emits this radiation back toward space as infrared radiation. Greenhouse gases, which are mostly transparent to incoming solar radiation, are effective in absorbing infrared radiation and redirecting some of this back to the earth's surface. As a result, radiation that otherwise would have escaped back into space is retained, resulting in a warming of the atmosphere. This process is known as the greenhouse effect. The greenhouse effect helps maintain a habitable climate. Emissions of GHGs from human activities, such as electricity production, motor vehicle use, and agriculture, are elevating the concentration of GHGs in the atmosphere. GHG emissions from Anthropogenic sources are causing a trend of unnatural warming of the earth's climate, known as global warming or global climate change.

Climate change has a cumulative impact; a project contributes to this impact through its incremental contribution of GHG emissions combined with the cumulative increase of all other sources of GHGs. MBARD defines their GHG threshold in terms of carbon dioxide equivalent ("CO2e"), a metric that accounts for emissions from various GHGs based on their global warming potential. If annual emissions of GHGs exceed these threshold levels, the proposed project would result in a cumulatively considerable contribution of GHG emissions and must implement

mitigation measures (MBARD, 2016). MBARD has not yet adopted a threshold for construction-related GHG emissions but recommends utilizing thresholds set by neighboring districts (e.g., Sacramento Metropolitan Air Quality Management District ["SMAQMD"]). SMAQMD adopted an updated threshold based on the 2030 target year in April 2020. SMAQMD adopted the current GHG thresholds of significance, which include a construction threshold (1,100 metric tons of CO2e/year) and a land use operational threshold (1,100 metric tons of CO2e/year). Projects whose emissions are expected to meet or exceed the significance criteria will have a potentially significant adverse impact on global climate change (SMAQMD, 2020).

## III. Air Quality & GHG Modeling Results

### *Project Assumptions & Model Inputs*

The proposed project consists of consolidation of the PWS, SMWS, SWS, and other connections in the NOML area. Specifically, the project proposes to construction an Iron and Manganese Treatment System, consolidate pipelines, construct a Transmission Booster Pump Station, rehabilitate the PWS Tank, destroy the SMWS wells No. 1 and No. 2, install radio meter upgrades and a SCADA system, and expand the Springfield Expansion Distribution Main, the Bluff/Jensen Distribution Main, and lateral service connections located on private property.

To quantify air quality and GHG emissions for the proposed project, DD&A relied on information from the District and the project engineer, MNS Engineers, Inc. ("MNS"), as well as the California Emissions Estimator Model ("CalEEMod") project assumptions under the "General Light Industry" land use category.[1] The model incorporated a secondary land use category in "User Defined Linear" to accurately describe and model emissions from activities associated with pipeline installation. CalEEMod does not provide default data for "User Defined" land uses, so all input data for pipeline construction and operation derived from information provided by the District and MNS. The CalEEMod analysis relied on following project inputs to quantify air quality and GHG emissions: 1) a building area of approximately 43,560 square feet, or approximately one (1) acre, for all proposed structures; 2) linear construction of approximately 46,000 feet, or approximately 8.7 miles, encompassing approximately 2.6 acres, and 3) an approximately 20-month construction schedule.[2] CalEEMod also includes project assumptions for estimated trips generated by the proposed project and for the operation of the proposed project under the "General Light Industry" land use category used for this analysis. The attached *Pajaro/Sunny Mesa System Consolidation Project Detailed Report* includes a detailed list of project inputs and estimated air quality and GHG emissions for the proposed project.

---

[1] CalEEMod land uses describe the types of actions for a given project as opposed to describing the official General Plan land use designations of a project site. While the proposed project site carries land use designations for Public/Quasi Public, Agricultural Conservation, Agricultural Preservation, Wetlands and Coastal Strands, and Resource Conservation, the land use of "General Light Industry" was selected to capture the anticipated emissions more accurately from the proposed water system consolidation project.

[2] The construction schedule assumes that all linear construction (i.e., trenching, pipeline installation, and paving) and vertical construction activities would occur simultaneously throughout construction of the project (i.e., treatment system, pump station, and water tanks). The maximum number of construction workers per day would be 25 workers, and these workers would participate in multiple overlapping construction phases. To accurately model the number of daily trips generated by construction of the project and to avoid double counting the same workers across overlapping construction phases, the maximum anticipated number of workers, being 25 workers, was incorporated only for the longest phase of construction (i.e., the pipeline installation phase). The pipeline installation phase would begin on the first day of construction and last for approximately 400 days, encompassing the entire construction schedule.

*Air Quality Emissions*

DD&A used CalEEMod to quantify air quality emissions during construction and operation of the proposed project. Additionally, DD&A incorporated measures for dust suppression, as recommended by MBARD, into the model. Specifically, these measure include watering of exposed areas twice daily, watering unpaved roads twice daily, and sweeping paved roads once per month. **Table 4** includes the emissions of criteria air pollutants during construction against the established MBARD thresholds.

**Table 4**
**Construction Emissions of Criteria Air Pollutants**
**Emissions (lbs./day)**

| Criteria | ROG | $NO_X$ | CO | $SO_2$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| Maximum Daily Emissions: | 2.11 | 18.7 | 15.6 | 0.05 | 73.3 | 8.57 |
| MBARD Significance Threshold: | 137 | 137 | 550 | 150 | 82 | 55 |
| Exceeds Threshold/Significant Impact? | No | No | No | No | No | No |

Source: CalEEMod 2025, Denise Duffy & Associates, Inc. 2025 CalEEMod.
See Appendix A for full CalEEMod Report.

1. To be conservative, maximum daily emissions are based on the highest daily emissions for summer or winter conditions.

Construction of the proposed project would result in minor emissions of criteria air pollutants and would not exceed applicable thresholds established by MBARD. Therefore, the proposed project's impacts related to air quality emissions would be less than significant during construction.

**Table 5** shows the emissions of criteria air pollutants during operation against the established MBARD thresholds.

**Table 5**
**Operational Emissions of Criteria Air Pollutants**
**Emissions (lbs./day)**

| Criteria | ROG | $NO_X$ | CO | $SO_2$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| Maximum Daily Emissions: | 8.27 | 19.9 | 20.0 | 0.04 | 1.06 | 1.06 |
| MBARD Significance Threshold: | 137 | 137 | 550 | 150 | 82 | 55 |
| Exceeds Threshold/Significant Impact? | No | No | No | No | No | No |

Source: CalEEMod 2025, Denise Duffy & Associates, Inc. 2025 CalEEMod.
See Appendix A for full CalEEMod Report.

1. To be conservative, maximum daily emissions are based on the highest daily emissions for summer or winter conditions.

Operation of the proposed project would result in minor emissions of criteria air pollutants and would not exceed applicable thresholds established by MBARD. Therefore, the proposed project's impacts related to air quality emissions would be less than significant during operation.

*Greenhouse Gas Emissions*

DD&A also evaluated construction and operational GHG emissions using CalEEMod. As shown in **Table 6**, construction of the proposed project would generate 405 MTCO2e/year in 2026 and 180 MTCO2e/year in 2027. Amortized over a 30-year period, construction of the proposed project would generate 13.6 MTCO2e/year for construction occurring in 2026 and 6.0 MTCO2e/year for construction occurring in 2027.[3] These projected annual GHG emission totals would be well below SMAQMD's threshold of 1,100 MTCO2e/year.

**Table 6**
**Construction Emissions of GHGs**

| Construction Phase | Annual Emissions ($MTCO_2e$/Year) |
|---|---|
| Site Preparation (2026) | 0.93 |
| Staging/Delivery (2026) | 20.0 |
| Grading (2026) | 4.13 |
| Building Construction (2026) | 5.75 |
| Pump Station Installation (2026) | 0.35 |
| Trenching (2026) | 22.89 |
| Trenching (2027) | 12.15 |
| Pipeline Installation (2026) | 321.8 |
| Pipeline Installation (2027) | 168.34 |
| Paving (2026) | 29.37 |
| Total Annual Construction Emissions (2026): | 405 |
| Total Annual Construction Emissions (2027): | 180 |
| Amortized Construction Emissions[1](2026): | 13.6 |
| Amortized Construction Emissions[1](2027): | 6.0 |

Source: CalEEMod 2025, Denise Duffy & Associates, Inc. 2025 CalEEMod.
See Appendix A for full CalEEMod Report.

1. Amortized emissions are quantified based on an estimated 30-year project life.

As shown in **Table 7**, operation of the proposed project would generate 191 MTCO2e/year of GHG. When accounting for the amortized construction GHG emissions, the proposed project would generate 210.6 MTCO2e/year of GHG. Therefore, the projected annual emissions during operation of the proposed project would be below SMAQMD's threshold of 1,100 MTCO2e/year.

[3] Amortized construction emissions are calculated by dividing the total estimated emissions by the estimated lifetime of the project, about 30 years. Amortizing construction emissions allows projects to analyze a combined total of construction and operational emissions over the lifetime of the project against the chosen CEQA threshold, in this case the 1,1000 MTCO2/year as defined by SMAQMD. Construction GHG emissions, operational GHG emissions, and total GHG emissions (amortized construction emissions plus operational emissions) for the project are all below SMAQMD's GHG threshold.

**Table 7**
**Operational Emissions of GHGs (Year 2027)**

| Source | Annual Emissions ($MTCO_2e$/Year) |
|---|---|
| Area | 0.89 |
| Energy Use (Electricity) | 41.1 |
| Energy Use (Natural Gas) | 97.8 |
| Mobile | 0 |
| Waste | 16.9 |
| Water | 18.8 |
| Refrigerants | 1.88 |
| Stationary Emissions (Emergency Generators) | 13.4 |
| Total: | 191 |
| Total with Amortized Construction Emissions:[1] | 210.6 |
| Significance Threshold: | 1,100 |
| Exceeds Significance Threshold?: | No |

Source: CalEEMod 2025, Denise Duffy & Associates, Inc. 2025 CalEEMod.
See Appendix A for full CalEEMod Report.
1. GHG emissions quantified for buildout conditions.

The construction and operational GHG emissions are well below the established SMAQMD threshold of 1,100 MTCO2e/year of GHG. Therefore, the proposed project's impacts related to GHG emissions would be less than significant during both construction and operation.

## IV. Conclusion

The proposed project would result in minor increases to air quality and GHG emissions during construction and operation. The emissions during both construction and operation would not, however, exceed MBARD's thresholds of significance for air quality and SMAQMD's thresholds of significance for GHG emissions. Therefore, impacts related to air quality and GHG would be less than significant as a result of the proposed project. Please request a copy of the *Pajaro/Sunny Mesa System Consolidation Project Detailed Report* from the Lead Agency (omitted due to not meeting accessibility requirements) for specific data inputs and estimated air quality and GHG emissions for the proposed project.

**References**

Denise Duffy & Associates. 2025. *Pajaro/Sunny Mesa System Consolidation Project Detailed Report – California Emission Estimator Model Results.* Dated June 2025.

Monterey Bay Air Resources District. 1996. *Guidelines for Implementing the California Environmental Quality Act.* Dated February 2016.

Monterey Bay Air Resources District. 2017. *2012 – 2015 Air Quality Management Plan.* Dated September 2017.

Sacramento Metropolitan Air Quality Management District. 2020. *Greenhouse Gas Thresholds for Sacramento County.* Dated June 2020.

# Appendix C
# Biological Resource Report

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# Pajaro-Sunny Mesa-Springfield Area Regional Consolidation Project

## Biological Resources Report

**NOVEMBER 2025**

**Prepared For:**

PAJARO / SUNNY MESA
COMMUNITY SERVICES DISTRICT

**Pajaro Sunny Mesa**
**Community Services District**
136 San Juan Rd.
Royal Oaks, Ca 95076

**Prepared By:**

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# INTRODUCTION

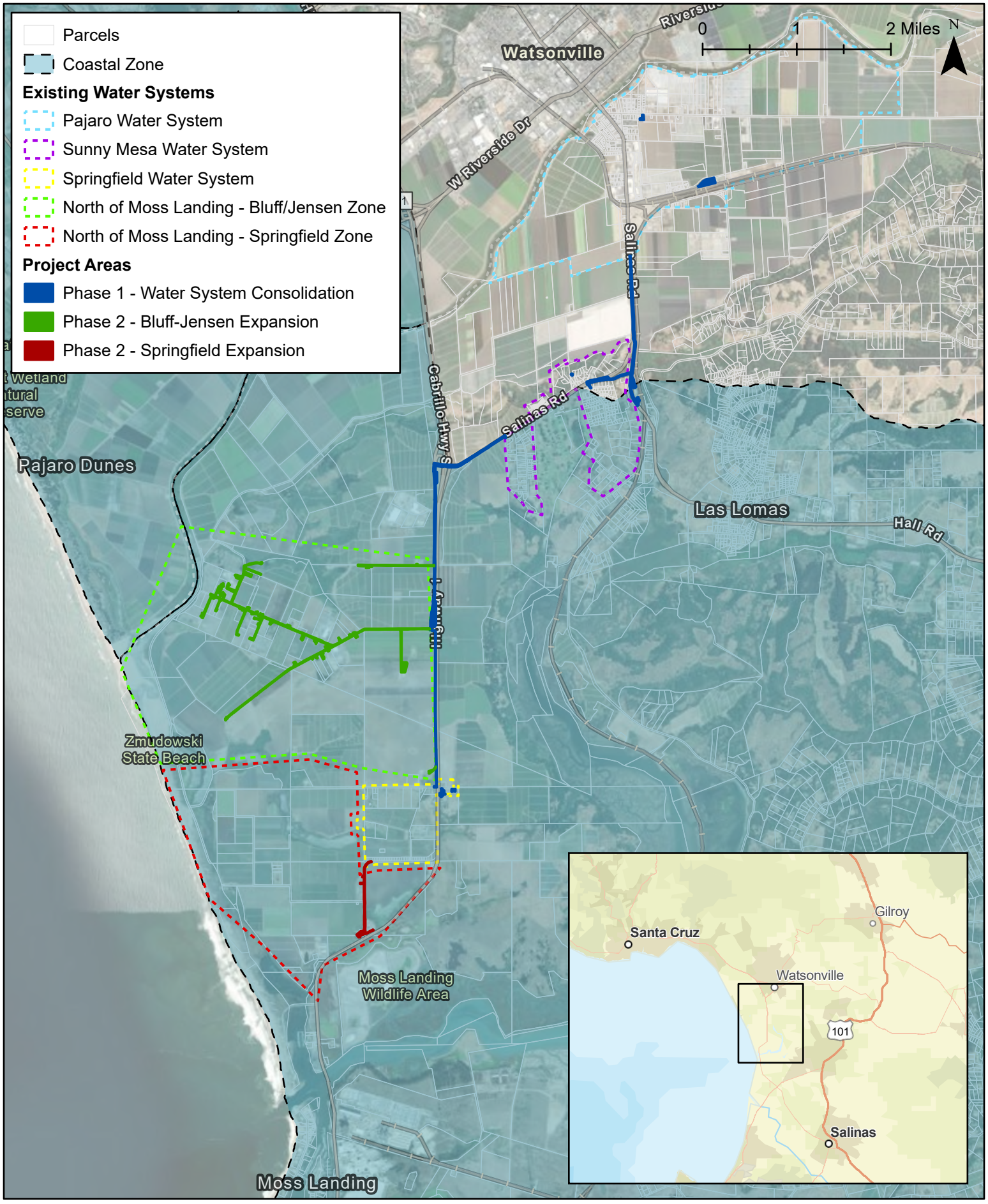
Denise Duffy & Associates, Inc. ("DD&A") was contracted by the Pajaro Sunny Mesa Community Services District ("District") to prepare a Biological Resources Report for the Pajaro – Sunny Mesa - Springfield ("PSMS") Area Regional Consolidation Project ("Project" or "Proposed Project"), located north of the community of Moss Landing in unincorporated Monterey County (**Figure 1**). The Project is two-phased, consisting of the consolidation of the three public water systems and various water connections in the North of Moss Landing ("NOML") Area into a single water system to be owned and operated by the District. This report describes the existing biological resources within and adjacent to the Proposed Project, including any special-status species or sensitive habitats known or with the potential to occur. This report also assesses the potential impacts to biological resources that may result from the Proposed Project, and recommends appropriate avoidance, minimization, and mitigation measures necessary to reduce impacts to a less-than-significant level in accordance with the California Environmental Quality Act ("CEQA").

## Background

Water service in the Project area is provided by three public water systems owned and operated by the District (**Figure 1**). These systems are the Pajaro Water System "(PWS"), the Sunny Mesa Water System ("SMWS"), and the Springfield Water System ("SWS"). In addition, the NOML area contains 77 identified households, with 32 houses sourcing water from two state regulated small water systems and nine locally regulated small water systems, and 43 households reliant on private domestic wells. The NOML area includes the proposed Bluff-Jensen Expansion Area and the Springfield Expansion Area, as described in the Project Description below. All of the NOML water sources and wells face issues related to water quality, water supply reliability, and vulnerabilities to failure, as described in further detail below. The Proposed Project is needed to address long-standing contamination issues within the wells within the Project area.

## Project Location

The Proposed Project is located north of the community of Moss Landing and south of the city of Watsonville in northern unincorporated Monterey County ("County") (**Figure 1**). Regional access to the Project area is provided primarily from State Route ("SR") 1 and Salinas Road. The Moss Landing and Pajaro communities are rural, low-density residential areas. Land use within the Project area consists mainly of agricultural parcels, rural residential parcels, State Highways, and County rights-of-way ("ROWs"). The Proposed Project area evaluated in this report consists of various pipeline, well, tank, pump station, and other improvement components, as well as expanded service areas within the NOML area (i.e., the Bluff-Jensen and Springfield Expansion areas), as shown below in **Table 1** and **Figure 2**. **Table 1** and **Figure 1** also identify whether the components are located within the coastal zone. **Table 2** provides the Assessor's Parcel Numbers ("APNs") to be served by the Proposed Project.




# PSMS Area Regional Consolidation Project Vicinity

Date: 9/22/2025

Scale: 1 in = 1 mi

DENISE DUFFY & ASSOCIATES, INC.
Planning and Environmental Consulting

Figure 1

Path: C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

**Project Components**

- Transmission Main Pipeline (Phase 1)
- Transmission Booster Pump Station (Phase 1)
- SMWS Tank Site Electrical Upgrades (Phase 1)
- Iron & Maganese Treatment System, & Facility Flood Protection (Phase 1)
- PWS Tank Rehabilitation (Phase 1)
- Bluff-Jensen Expansion Distribution Pipeline (Phase 2)
- Bluff-Jensen Tank & Booster Pump Station (Phase 2)
- Bluff-Jensen Expansion Service Areas (Phase 2)
- Springfield Expansion Distribution Pipeline (Phase 2)
- Springfield Expansion Service Areas (Phase 2)
- Potential Staging Areas

**Existing Water Systems**

- Pajaro Water System
- Sunny Mesa Water System
- Springfield Water System
- North of Moss Landing - Bluff-Jensen Zone
- North of Moss Landing - Springfield Zone

0 0.25 0.5 1 mi

N

Connection with Existing PWS

Transmission Booster Pump Station Supply Pipeline

Trafton Rd

Salinas Rd

PWS to SMWS Transmission Main

Warner Lake

Tri-County Landscaping Water Meter Relocation

SMWS Tank Site Upgrades

Garin Rd

Sunny Mesa Wells, Transmission Booster Pump Station, & Staging Area

Connection with Existing SMWS

Fruitland Ave

Elkhorn Rd

Pajaro Valley Golf Club

Hillcrest Rd

Bay Farms Rd

Spring Rd

Hudson Landing Rd

Hall Rd

Wells Rd

Hilltop Rd

Highway 1

Bluff-Jensen Distribution Pipeline

SMWS to NOML Transmission Main Pipeline

Hwy 1

Bluff Jensen Distribution Pipeline to be Installed in Tandem with Transmission Main Pipeline in this section

Potential Staging Area

Springfield Transmission Main Pipeline

0 0.1 0.2 0.4 mi

San Juan Rd

PWS Well #1 Site, Iron & Manganese Treatment System, Facility Flood Protection, & Staging Area

Matiasevich Ln

Waters Ln

Marinovich Ave

PWS Tank Rehabilitation & Staging Area

Railroad Ave

Southern Pacific Railroad

Lewis

| | | | |
|---|---|---|---|
| PSMS Area Regional Consolidation Project<br>Project Components | Date<br>9/22/2025<br>Scale<br>1 in = 0.24 mi | DENISE DUFFY & ASSOCIATES, INC.<br>Planning and Environmental Consulting | Figure<br>2A |

Path: C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

SMWS to NOML Transmission Main Pipeline

Hilltop Rd

Hwy 1

Trafton Rd

Bluff-Jensen Expansion Distribution Pipeline

Bluff Jensen Distribution Pipeline to be Installed in Tandem with Transmission Main Pipeline in this section

Highway 1

Bluff Rd

Transmission Main Pipeline to be Installed in Tandem with Bluff Jensen Distribution Pipeline in this section

Potential Staging Area

Jensen Rd

Bluff-Jensen Tank & Booster Pump Station & Staging Area

Bluff-Jensen Expansion Distribution Pipeline

Springfield Transmission Main Pipeline

Springfield Rd

Potential Staging Areas

Moss Landing Middle School

Connection with SWS

*McClusky Slough*

Santa Cruz Long-Toed Salamander

Struve Rd

SWS Distribution System Expansion Pipeline

Giberson Rd

**Project Components**

- Transmission Main Pipeline (Phase 1)
- Transmission Booster Pump Station (Phase 1)
- SMWS Tank Site Electrical Upgrades (Phase 1)
- Iron & Maganese Treatment System, & Facility Flood Protection (Phase 1)
- PWS Tank Rehabilitation (Phase 1)
- Bluff-Jensen Expansion Distribution Pipeline (Phase 2)
- Bluff-Jensen Tank & Booster Pump Station (Phase 2)
- Bluff-Jensen Expansion Service Areas (Phase 2)
- Springfield Expansion Distribution Pipeline (Phase 2)
- Springfield Expansion Service Areas (Phase 2)
- Potential Staging Areas

**Existing Water Systems**

- Pajaro Water System
- Sunny Mesa Water System
- Springfield Water System
- North of Moss Landing - Bluff-Jensen Zone
- North of Moss Landing - Springfield Zone

0 0.25 0.5 1 mi

N

# Springfield Area Regional Consolidation Project
# Project Components

Date 9/22/2025

Scale 1 in = 0.24 mi

DENISE DUFFY & ASSOCIATES, INC.
Planning and Environmental Consulting

Figure 2B

Path: C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

**Table 1.**
**Project Components APNs and Relation to Coastal Zone**

| Proposed Project Component | Project APN | Located Within Coastal Zone |
|---|---|---|
| Pajaro Well #1 Site/<br>Iron & Manganese Treatment System | 117-351-032-000 | No[1] |
| Pajaro Tank Site | 117-263-006-000 | No[1] |
| Sunny Mesa Well Site/Transmission<br>Booster Pump Station | 117-121-003-000<br>117-121-004-000 | Yes[2] |
| Sunny Mesa Tank Site Improvements | 117-191-004-000 | No[1] |
| Pipeline Easements | 117-021-008-000<br>117-021-013-000<br>117-022-002-000<br>412-032-011-000 | Yes[2] |
| Pipelines (within rights-of-way) | None | Partially |
| Bluff-Jensen Tank Site | 117-033-005-000 | Yes[2] |
| Service Area Connections | Various Parcels[3] | Yes[2] |

**Applicable Regulatory Plans**
[1] 2010 Monterey County General Plan, North County Area Plan
[2] 1982 Monterey County General Plan, North County Land Use Plan/Local Coastal Program
[3] See Table 2 for APNs for Service Area Connections

**Table 2.**
**Project APNs to be Served by Proposed Project**

| Project APNs | Project APNs | Project APNs |
|---|---|---|
| 117-032-001-000 | 117-031-004-000 | 117-031-005-000 |
| 117-031-006-000 | 117-032-002-000 | 117-032-003-000 |
| 117-032-004-000 | 117-032-005-000 | 117-033-003-000 |
| 412-032-013-000 | 117-033-005-000 | 117-033-004-000 |
| 117-031-014-000 | 117-043-026-000 | 117-043-013-000 |
| 117-043-014-000 | 117-043-015-000 | 117-043-032-000 |
| 117-042-005-000 | 117-042-006-000 | 117-043-006-000 |
| 117-043-010-000 | 117-043-022-000 | 117-043-019-000 |
| 117-043-003-000 | 117-043-029-000 | 117-043-023-000 |
| 117-041-017-000 | 117-041-012-000 | 117-041-011-000 |
| 117-041-016-000 | 117-042-010-000 | 117-042-009-000 |
| 413-012-014-000 | 413-013-001-000 | 413-031-001-000 |
| 117-021-008-000 | 117-052-023-000 | 117-022-002-000 |
| 117-021-013-000 | 412-032-011-000 | |

This report evaluates the Proposed Project based on 30% design plans (**Appendix A**). However, this report includes an "Evaluation Area" that is larger than the actual footprint of the construction in order to include all areas that could potentially be impacted by project activities, such as access, parking, or staging (**Figure 1**). For the transmission and distribution pipelines, this includes the width of the roadways and road shoulders along the alignment. Exact service connection pipeline locations have not been determined. Therefore, the Evaluation Area includes all potential areas for the service connections are included; however, installation of the actual service connection pipelines will be significantly smaller. The Transmission Booster Pump Station would be located at the existing SMWS well site off of Elkhorn Road; the existing wells at this site would be converted to standby use only. The Iron and Manganese Treatment System, PWS Tank Rehabilitation, and SMWS Tank Site Improvements components would be located within existing facilities. The Evaluation Area includes most of the area within these existing facilities; however, actual work areas would be more limited. Staging is proposed within the existing PWS Tank facility, SMWS well facility, and Pajaro Well #1 facility/District office; within the proposed Bluff-Jensen Tank and Booster Pump Station; within a the California Department of Transportation ("Caltrans")-owned property near the intersection of Jensen Road with Hilltop Road and SR 1; and within the Moss Landing Middle School; however, all areas analyzed for staging may not be used. The Project has been designed to avoid impacts to known or potential sensitive habitat areas, and therefore the Evaluation Area has also been defined to exclude sensitive resources that were identified in the Constraints Analysis prepared by DD&A in 2023 or during surveys conducted for this report; however, immediately adjacent sensitive resources are discussed herein.

## PROJECT DESCRIPTION

The Proposed Project is two-phased, consisting of the consolidation of the PWS, SMWS, and SWS, and various water connections in the NOML area into a single water system to be owned and operated by the District. Phase 1 of the Proposed Project is anticipated to be funded by the State Water Resources Control Board ("SWRCB") Expedited Drinking Water Grant.

Phase 1 of the Proposed Project consists of the consolidation of the existing water systems and related improvements to existing District infrastructure. Specifically, Phase 1 of the Proposed Project would consist of the following components[1]:

- Construction of an Iron and Manganese Treatment System and a Transmission Booster Pump Station to convey water from the PWS to the SMWS;
- Installation of the Transmission Main;
- Rehabilitation of the PWS's existing 600,000 gallon welded steel water storage tank;
- Communication and control upgrades to the SMWS tank site;
- Conversion of SMWS wells No. 1 and No. 2 to standby use;
- Radio read water meter installation and upgrades; and
- Installation of a Supervisory Control and Data Acquisition ("SCADA") system.

Phase 2 of the Proposed Project is anticipated to be funded by the California Safe Drinking Water State Revolving Fund from the SWRCB. Phase 2 consists of the extension of District water service into the Project areas. Specifically, Phase 2 would consist of the following components:

- Installation of the Springfield Distribution Pipeline, Bluff/Jensen Distribution Pipeline, and the overlapping portion of the Transmission Main Pipeline;
- Construction of the Bluff-Jensen Tank and Booster Pump Station;
- Lateral service connections;
- Well destruction (except as retained for irrigation on a case-by-case basis); and
- Abandonment of existing NOML infrastructure.

Phase 1 of the Proposed Project would function as a standalone water system Project in the event Phase 2 is not funded or is otherwise delayed.

Once operational, the Proposed Project is anticipated to serve 967 total connections within the Project area. The Proposed Project would accommodate existing connections within the area by transferring water service to the consolidated water system. The Proposed Project would primarily be supplied water from three (3) sources, comprised of Pajaro Wells No. 1 and No. 2 and Springfield Well No. 2. Additionally,

[1] Phase 1 will also include annexation of parcels into the District's Service Area and land acquisition and easements; however, these administrative actions would not have any impact on biological resources and is therefore not discussed herein.

Sunny Mesa Wells No. 1 and No. 2 would be retained as standby sources of water for the Proposed Project, for an overall total of five (5) water sources. The Proposed Project is not intended to facilitate future residential or commercial development. In addition, the Proposed Project includes additional infrastructure improvements to facilitate Operations and Maintenance ("O&M") of the new water system. These components are explained in more detail below.

## Project Components

### *Pipelines*

The Proposed Project includes approximately 46,000 linear feet ("LF") of pipeline, as well as various other appurtenances, including, but not limited to, valves, fire hydrants, air release valves, blow-offs, and sampling stations, to consolidate the existing water systems. Transmission and distribution pipes would be a minimum of six (6)-inches and a maximum of 10-inches in diameter where service to fire hydrants is provided. Pipeline installation would primarily utilize open trench construction methods with an anticipated trench width of 24 to 30 inches and a minimum depth of cover of 36-inches within the public ROWs and private roadways, with greater depths potentially required within easements located within and adjacent to agricultural areas. Horizontal Directional Drilling ("HDD") would be utilized within the Transmission Main easement near the SWS connection to avoid impacts to sensitive riparian habitat. Main lines will be separated from existing sewage and storm drain lines according to California Code of Regulations Title 22, §64554. Within the County ROW, surfaces will be repaired in accordance with the County's requirement; depending on location, County requirements may include full road width resurfacing, resurfacing of one traveled lane, or only a trench width repair. Within Caltrans ROW (approximately 1,030 LF), pavement repair will include the trench and an additional 12 inches on either side. A total of approximately 12.5 acres of pavement will be replaced. Further details on pipeline improvements are provided below.

*Transmission Booster Pump Station Supply Pipeline*

An approximately 5,300 LF pipeline will connect the existing termination of the PWS distribution system (located at 560 Salinas Road) to the Transmission Booster Pump Station (**Figure 2**). The new transmission pipeline will run south within the paved ROW in Salinas Road before reaching the intersection of Salinas Road and Elkhorn Road and continuing south along Elkhorn Road and connecting to the new Transmission Booster Pump Station located at the existing SMWS well site.

*PWS to SMWS Transmission Main*

An approximately 2,780 LF pipeline will convey water south from the Transmission Booster Pump Station to the existing termination of the SMWS service pipeline in Fruitland Avenue (**Figure 2**). The new transmission pipeline would travel from the Transmission Booster Pump Station back north along Elkhorn Road, then turn west along Werner Road and Salinas Road, before turning south along Fruitland Avenue and reconnecting with the existing SMWS system.

*SMWS to NOML Transmission Main and Bluff-Jensen Distribution*

The Proposed Project would install an approximately 14,700 LF transmission main to convey water from the SMWS to the intersection of Hilltop Road and Jensen Road. The new transmission pipeline would tie into the existing SMWS distribution system at the intersection of Salinas Road and Bay Farms Road, then continue west to the intersection of Salinas Road and Hilltop Road (**Figure 2**). The pipeline would be located within the ROW of Salinas Road as well as the Caltrans ROW within SR 1, including the on- and off-ramps to Salinas Road. The crossing of SR 1 (approximately 212 LF) would be installed within an existing unused utility conduit within the bridge over SR 1. Vaults with expansion joints will be provided on either side of the bridge crossing. From the intersection of Salinas Road and Hilltop Road, the pipeline would proceed south in the paved ROW and/or unpaved shoulder of Hilltop Road to the intersection with Jensen Road, where it would split into two (2) segments, one (1) travelling west along Jensen road to connect to the Bluff-Jensen Tank and Booster Pump Station (see NOML Transmission and Bluff-Jensen Distribution Piping below), and the other continuing to the SWS (see Springfield Transmission Main below). Additionally, approximately 2,300 LF of the Bluff-Jensen distribution piping will be installed in tandem with the Transmission Main Pipeline in Hilltop Road and Jensen Road as part of Phase 1 of the Proposed Project.

*Springfield Transmission Main*

The Springfield Transmission Main will serve as a back-up water supply to the SWS. An approximately 5,140 LF pipeline will be located within an easement that runs parallel to SR 1 along an unnamed farm road and through a residential property at the northwestern corner of the intersection of Springfield Road and SR 1, before turning west along Springfield Road to connect with the SWS (**Figure 2**). Within this extent, approximately 400 LF of the transmission pipeline would be installed using HDD to avoid impacts to sensitive riparian habitat. The Proposed Project includes installation of a manual flushing point at the connection to the SWS distribution system to purge aged water prior to discharge into the SWS.

*NOML Transmission Main and Bluff-Jensen Distribution Piping*

The Proposed Project will provide water to the Bluff-Jensen area by installing approximately 14,175 LF of distribution pipeline within the Bluff-Jensen Expansion Area as part of Phase 2[2]. Approximately 5,225 LF of new distribution pipeline will extend southwest and northeast along Jensen Road from the Bluff-Jensen Tank and Booster Pump Station (**Figure 2**). Approximately 3,820 LF of transmission pipeline would be installed in tandem within the distribution piping in the northeast extent, between the Bluff-Jensen Tank and Booster Pump Station and the intersection of Jensen Road and Hilltop Road, as part of Phase 2 of the Proposed Project. The distribution piping would also branch off to the northwest along Bluff Road (4,800 LF), with an additional segment branching off and travelling to the north along Trafton Road (1,400 LF) and approximately 2,750 LF will also extend west from Hilltop Road along an unnamed dirt road (**Figure 2**). The pipelines installed within Jensen Road, Bluff Road, and Trafton Road would all have a dead-ends at the terminus of the pipeline that will require regular flushing to maintain water quality.

[2] This does not include the distribution piping that will be installed in tandem with the Transmission Main Pipeline as part of Phase 1; the Bluff-Jensen Distribution piping will total 16,455 LF.

*SWS Distribution System Expansion Piping*

The Proposed Project will expand the SWS by installing approximately 2,650 feet of pipeline to tie into the west end of the SWS at Struve Road (**Figure 2**). The new pipeline would be installed within Struve Road and would have a dead-end at the southern terminus of the pipeline that will require regular flushing to maintain water quality.

### *Site Improvements and New Facilities*

*PWS Tank Rehabilitation*

The Proposed Project includes electrical and piping modifications at the District's existing Pajaro tank and booster pump station site located at Railroad Avenue (**Figure 2**). These modifications include the installation of a bypass valve vault; the replacement of the existing 10-inch electromagnetic flow meter; and the rehabilitation of the existing 600,000 gallon welded steel water tank by recoating interior and exterior surfaces, repairing the structure and pitted areas on the tank floor, replacing tank appurtenances, and various other improvements. These improvements would occur entirely within a developed site and are depicted on Sheets C-091 and C-092 of **Appendix A**.

*Sunny Mesa Tank Site Upgrades*

The Proposed Project includes improvements to the District's existing SMWS Tank site located off of Stone Ridge Drive. These improvements include instrumentation, controls, and communication system improvements to integrate site operation into the proposed SCADA system. These improvements would occur entirely within a developed site.

*Iron and Manganese Treatment System & Facility Flood Protection*

The Proposed Project includes an Iron and Manganese Treatment System that would be installed at the existing Pajaro Well No. 1 site (**Figure 2**). This treatment system would address water quality issues related to elevated iron and manganese concentrations and provide the consolidated water system with an additional source of supply. Some existing vegetation, well piping, and other site equipment would be removed to make way for the site improvements, while other equipment, including the existing hydropneumatic tank, would be protected in place. An existing storage shed would be relocated to make room for the site improvements, and the existing pump and motor would be tested to confirm operation and potentially replaced to meet revised hydraulic conditions. This component includes approximately 2,000 sf of new impervious surfaces at the southeastern corner of the site. In addition, some existing piping and infrastructure, a fence segment, and a light pole would be removed from the site. The treatment system consists of a pressure filter containing a combination of anthracite and greensand filtration media, as well as 15-foot diameter 10,000 gallon backwash tank. New eight (8) inch diameter pipelines would be installed within the adjacent parking lot to convey water from the existing Pajaro Well No. 1 to the treatment system and from the treatment system to the District's distribution system located within San Juan Road. The Iron and Manganese System also includes the construction of a new concrete masonry unit ("CMU") block building with two (2) separate rooms to house chemical equipment and

electrical equipment, and installation of retaining walls and an access ramp. The new facilities at this site would be elevated above the flood level and new drainage management features would be installed to manage on-site flood flows. The existing PWS Well No. 1 site facilities would also be hardened to protect against flooding, including installation of flood barriers at critical facilities. The proposed improvements are depicted on Sheets C-086 through C-090 of **Appendix A**.

*Transmission Booster Pump Station*

The Proposed Project includes the construction of a new Transmission Booster Pump Station located at the existing SMWS well site (**Figure 2**). The Transmission Booster Pump Station would convey water from the PWS to SMWS and then to the Bluff-Jensen area and SWS. The Transmission Booster Pump Station would include a bypass vault and security improvements (fencing, etc.). The existing back-up generator would be relocated to a new concrete pad and the existing concrete mounting pad would be demolished. In addition, the existing water meter and lateral for the adjacent property (Tri-County Landscaping) would be relocated to the north. The existing access driveway would be replaced, with elevations to match existing conditions. The Transmission Booster Pump Station would also include a back-up generator and security improvements (fencing, etc.). Approximately 150 sf of new impervious surfaces and 2,350 sf of replacement impervious surfaces would be installed at the Transmission Booster Pump Station site. Two (2) coast live oak trees would require removal as a result of construction of this Project component; all other trees on the site would be protected in place.

The Proposed Project would retain the existing SMWS Wells No. 1 and No. 2 located at the Transmission Booster Pump Station site to serve as standby water sources. The Proposed Project would also demolish and remove or relocate some above-grade infrastructure at the SMWS well site and remove or abandon in-place underground pipe components.

*Bluff-Jensen Tank and Booster Pump Station*

The Proposed Project includes construction of a new booster pump station and water storage tank on a 10,000 sf portion of an approximately 17,536 sf site located at the northwest corner of the intersection between Jensen Road and Bluff Road (**Figure 2**). The pump station would convey water from the transmission main into the Bluff-Jensen area and provide water flow for fire prevention. The pumping facility will consist of a 34-foot diameter 125,000 gallon bolted-steel potable water storage tank, a 14-foot by 17-foot pump station consisting of four (4) vertical turbine can pumps, a 30 foot by nine (9) foot hydropneumatic pressure tank, a back-up generator, and a 24.5 foot by 9.33 foot chemical and electrical building housing a tank mixing and chlorine residual control system (see Sheets C-096 through C-101 of **Appendix A**). Site access would be provided via a new 20-foot wide driveway and rolling gate accessed via Jensen Road. Other site improvements include eight (8) foot high security chain link fencing (with three (3) strand barb wire) and a six (6) foot by six (6) foot transformer. Approximately 10,000 sf of impervious surfaces would be installed at the Bluff-Jensen Tank and Booster Pump Facility site. Unimproved areas of the site will be hydroseeded or landscaped.

### *Additional Infrastructure Improvements*

In addition to the pipeline and site improvements described above, the Proposed Project also includes various miscellaneous infrastructure improvements as described below.

*Existing NOML Infrastructure*

The existing private and state small water systems in the NOML area are considered unsuitable for consolidation into the Proposed Project. Existing water distribution infrastructure within the NOML area will either be abandoned or continue operation exclusively as non-potable water sources. In addition, the Proposed Project would destroy existing individual wells serving properties in the NOML area once these areas have been connected to the operational water distribution system component of the Proposed Project, unless wells are requested to be retained for irrigation. Well destruction is assumed to occur entirely within developed and disturbed areas. Well destruction typically includes removal of the top five (5) feet of well casing, requiring excavation. However, individual well destruction would be subject to the conditions of well destruction permits issued by the County Environmental Health Bureau, including verification that no sensitive resources would impacted during well destruction. Continued use of private wells for non-potable water would be at the discretion of the individual owners and may require County permitting and/or approvals that are not included under the Proposed Project. All well owners who opt to retain their wells for irrigation would be required to install a backflow prevention assembly and ensure that all water-using equipment is installed in accordance with plumbing code requirements pursuant to Section 7584 of Title 17 of the California Code of Regulations. In addition, well owners would be responsible for paying for an annual cross connection certification to demonstrate no connections exist between the potable and non-potable systems. Demolition waste from existing infrastructure would be disposed of in accordance with all applicable regulations at the Monterey Peninsula Landfill.

*Radio Read Water Meter Installation and Replacement*

The Proposed Project would install individual radio read water meters throughout the NOML area, and replace all existing water meters for the PWS (463 meters) and SMWS (268 meters) with new radio read meters. Use of these meters would reduce the District's operational workload by allowing remote access to meter data and eliminating the need to manually check meters and offsetting the need for additional or longer maintenance trips to serve the Proposed Project. Use of these meters would also allow for easier identification of leaks and maintenance needs, reducing water waste and streamlining maintenance operations.

*Supervisory Control and Data Acquisition (SCADA)*

The Proposed Project includes installation of a consolidated system-wide SCADA system, which would consist of a centralized base station computer, communication equipment, alarms, and other provisions. The SCADA system would allow the District to control the components of the Proposed Project via cloud-based remote access. These proposed improvements would require retrofitting existing sites and the installation of new infrastructure at new sites. No ground disturbing activities would be necessary for retrofits at existing District facilities. SCADA installation would begin in Phase 1 of the Proposed Project and would continue for applicable facilities under Phase 2 of the Proposed Project.

Local Programmable Logic Controllers ("PLCs") would control both the Transmission Booster Pump Station and the Bluff/Jensen Tank and Pump Station site. The improvements to the other facilities will rely on existing controls.

### *Service Connections*

The Proposed Project includes the installation of private water service laterals for the individual residential connections in the Bluff-Jensen and Springfield expansion areas. Laterals would connect the new distribution mains to individual residences to provide water service. In addition, connection points would be installed to provide future connections to existing commercial properties. As noted above, the exact location of the service connections has not been determined and the Evaluation Area includes all areas within the parcel where connections could be made; however, installation of the actual service connection pipelines will likely be significantly smaller. Trenchless installation of service laterals would be used where feasible and convenient using a small diameter boring machine; where trenching is necessary, all surfaces would be restored to match existing conditions following completion of installation. Project personnel would coordinate with individual properties prior to installation of service laterals on private property.

## PROJECT CONSTRUCTION

### *Staging Areas*

Temporary staging areas would be required for construction staging and equipment storage. It is anticipated that the existing Pajaro Well No. 1 site (at the District offices), PWS Tank site, and SMWS well site, as well as the proposed Bluff-Jensen Tank and Booster Pump Station site would be used as staging areas for construction. Additional potential staging areas include an area east of Hilltop Road near the intersection with Jensen Road and SR 1 and at the Moss Landing Middle School (**Figure 2**). However, all areas analyzed for staging may not be used.

### *Demolition*

The Proposed Project includes both well removal and demolition of existing structures on some of the Project Component sites. For the Iron and Manganese System installed at Pajaro Well No. 1 located at the District's office, some existing well piping and other site equipment would be removed to make way for the site improvements. For the Transmission Booster Pump Station at the existing SMWS well site, the Project would demolish the existing concrete pad underlying the generator, remove and replace the existing driveway, convert SMWS Wells No. 1 and No. 2 to standby operation, and destroy some above-grade infrastructure. Underground pipe components at this site will be removed or abandoned in place. Other demolition activities associated with the Proposed Project include destruction of wells in use by the various small and private water systems in the NOML area. Demolition waste would be disposed of in accordance with all applicable regulations at the Monterey Peninsula Landfill.

### *Grading and Trenching*

The Proposed Project would generate 53,130 cubic yards of cut and 53,144 cubic yards of fill, resulting in overall balanced earthwork. All of the tank sites, well sites, and pumping sites would be paved. The Proposed Project would create approximately 12,150 sf (150 sf for the Transmission Booster Pump Station Site, 10,000 sf for Bluff-Jensen Tank and Pump Station site, and 2,000 sf for the Iron and Manganese Treatment Facility) of total new impervious surfaces compared to existing conditions. In addition, the Proposed Project would replace approximately 2,350 sf of impervious surface at the Transmission Booster Pump Station site.

### *Schedule*

Construction would occur Monday through Friday between the hours of 8:00 AM and 5:00 PM. In addition, pipeline construction may occur within the public ROW Sunday through Thursday between the hours of 9:00 PM and 5:00 AM. Construction is anticipated to occur over the course of approximately 24-30 months. Construction of Phase 1 of the Proposed Project is expected to begin in 2026 and conclude by early 2028 over a course of 24 months. Construction for Phase 2 of the Proposed Project is expected to begin in 2027 and conclude by mid-2028 over a course of 18 months. The anticipated schedule of these construction activities is as follows (construction phases are anticipated to overlap):

- Site Construction – 750 days
- Pipeline construction – 750 days
- Well Demolition – 120 days

## OPERATION AND MAINTENANCE

Once operational, the District would provide water service to 967 connections within the Project area via a new consolidated water system. The SWS, SMWS, PWS, and the two (2) state regulated small water systems and nine (9) locally regulated small water systems within the NOML area would cease to exist. In addition, the District would then serve 43 connections previously reliant on private wells. Private wells would be retained for irrigation or destroyed in accordance with County regulations on a case-by-case basis. The Proposed Project is anticipated to generate a maximum of one (1) daily vehicle trip to one or more Project components for regular maintenance and testing.

# METHODS

## Personnel and Survey Dates

DD&A Senior Environmental Scientist Jami Colley and Assistant Environmental Scientist Rikki Lougee conducted surveys of the Evaluation Area on May 20 and 23, and June 18, 2024, and June 11, 2025. Available reference materials were reviewed prior to conducting the field survey (see "Data Sources" below). The surveys included the Transmission and Distribution Pipeline alignments, the Transmission Booster Pump Station, the Bluff-Jensen Tank and Booster Pump Station, and the potential additional staging area along Hilltop Road. Except where within the transmission and distribution alignments, private properties (i.e., the Service Connections areas) were not accessed for the evaluation. Visual assessments of these areas were conducted from public roads and using aerial imagery and available reference materials.

The field surveys included a focused botanical survey, a reconnaissance-level survey to identify any special-status wildlife species or suitable habitat for these species, characterize vegetation types, and identify any sensitive habitats present within or adjacent the Evaluation Area, an assessment of potentially jurisdictional wetlands and other waters. Survey methods included walking the Evaluation Area using aerial maps and GPS to map biological resources. Botanical surveys followed the applicable guidelines outlined in the U.S. Fish and Wildlife Service ("USFWS") *Guidelines for Conducting and Reporting Botanical Inventories for Federally listed, Proposed and Candidate Plants* (USFWS, 2000), the California Department of Fish and Wildlife ("CDFW") *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, 2021), and the California Native Plant Society ("CNPS") *Botanical Survey Guidelines* (CNPS, 2001). Data collected during the surveys were used to assess the environmental conditions of the Evaluation Area and its surroundings, evaluate environmental constraints at the site and within the local vicinity, and provide a basis for recommendations to minimize and avoid impacts.

## Data Sources

The primary literature and data sources reviewed to determine the occurrence or potential for occurrence of special-status species within and adjacent to the Evaluation Area include:

- Current agency status information from the USFWS and CDFW for species listed, proposed for listing, or candidates for listing as Threatened or Endangered under the federal Endangered Species Act ("ESA") or the California Endangered Species Act ("CESA"), and those considered CDFW "species of special concern," including;
    - CDFW's California Natural Diversity Database ("CNDDB") occurrence reports for the Moss Landing quadrangle and the six surrounding quadrangles (Marina, Salinas, Prunedale, Watsonville East, Watsonville West, and Soquel) (CDFW, 2025b; **Appendix B**);
    - The USFWS's Information for Planning and Consulting ("IPaC") Resource List (USFWS, 2025a: **Appendix C**); and
- The CNPS Inventory of Rare and Endangered Vascular Plants of California (CNPS, 2025).

From these resources, a list of special-status plant and wildlife species known or with the potential to occur within and adjacent to the Evaluation Area was created (**Appendix D**). The list presents these species along with their legal status, habitat requirements, and a brief statement of the likelihood to occur.

In addition, the following literature and data sources were reviewed to determine the occurrence or potential for occurrence of other sensitive natural resources within the survey area:

- California Natural Communities List (CDFW, 2025b);
- The U.S. Department of Agriculture ("USDA") Natural Resources Conservation Service ("NRCS") Web Soil Survey (USDA-NRCS, 2025);
- The National Wetlands Inventory Wetlands Mapper (USFWS, 2025b); and
- The National Hydrography Dataset (U.S. Geologic Survey ["USGS"], 2023).

### *Botany*

Vegetation types identified in *A Manual of California Vegetation* (Sawyer et al., 2009) were utilized to determine if vegetation types identified as sensitive on CDFW's *California Natural Communities List* (CDFW, 2025b) are present within the Evaluation Area. Information regarding the distribution and habitats of local and state vascular plants was also reviewed (Howitt and Howell, 1964 and 1973; Munz and Keck, 1973; Baldwin et al., 2012; Matthews and Mitchell, 2015; Jepson Flora Project, 2025). All plants observed within the Evaluation Area were identified to species or intraspecific taxon necessary to eliminate them as being special-status species using keys and descriptions in *The Jepson Manual: Vascular Plants of California, Edition 2* (Baldwin et al., 2012) and *The Plants of Monterey County an Illustrated Field Key* (Matthews and Mitchell, 2015). Scientific nomenclature for plant species identified within this document follows Baldwin, et. Al, (2012); common names follow Matthews and Mitchell (2015). All species observed during the surveys were recorded and the dominant species within each habitat were noted. Dominant plant species are those which are more numerous than their competitors in an ecological community or make up more of the biomass; generally, the species that are most abundant. Most ecological communities are defined by their dominant species.

### *Wildlife*

The wildlife literature and data sources were reviewed include CDFW reports on special-status wildlife (Remsen, 1978; Williams, 1986; Jennings and Hayes, 1994; Thelander, 1994), California Wildlife Habitat Relationships Program species-habitat models (Zeiner et al., 1988; and Zeiner et al., 1990), and general wildlife references (Stebbins, 1972, 1985, and 2003).

## Definitions

### *Special-Status Species*

Special-status species are those plants and animals that have been formally listed or proposed for listing as endangered or threatened or are candidates for such listing under the ESA or CESA. Listed species are afforded legal protection under the ESA and CESA. Species that meet the definition of rare or endangered

under the CEQA Section 15380 are also considered special-status species. Animals identified as "species of special concern" (most of which are species whose breeding populations in California may face extirpation if current population trends continue) on CDFW's "Special Animals" list (CDFW, 2025c) meet this definition and are typically provided management consideration through the CEQA process, although they are not legally protected under the ESA or CESA. Additionally, the CDFW also includes some animal species that are not assigned any of the other status designations on their "Special Animals" list; however, these species have no legal or protection status and are not analyzed in this document.

Plants listed as rare under the California Native Plant Protection Act ("CNPPA") or included in CNPS California Rare Plant Ranks (CRPR) 1A, 1B, 2A, and 2B are also treated as special-status species as they meet the definitions of Sections 2062 and 2067 of the CESA and in accordance with CEQA Guidelines Section 15380. In general, the CDFW requires that plant species on CRPR 1A (Plants presumed extirpated in California and Either Rare or Extinct Elsewhere), CRPR 1B (Plants rare, threatened, or endangered in California and elsewhere), CRPR 2A (Plants presumed extirpated in California, but more common elsewhere); and CRPR 2B (Plants rare, threatened, or endangered in California, but more common elsewhere) of the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2025) be fully considered during the preparation of environmental documents relating to CEQA. CRPR 3 (plants about which more information is needed) and CRPR 4 species (plants of limited distribution) may, but generally do not, meet the definitions of Sections 2062 and 2067 of the CESA and are not typically considered in environmental documents relating to CEQA, and are therefore not analyzed in this document.

Raptors (e.g., eagles, hawks, and owls) and their nests are protected in California under the federal Migratory Bird Treaty Act ("MBTA"), the California Migratory Bird Treaty Act ("CMBTA"), and California Fish and Game Code Section 3503.5. Section 3503.5 states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird except otherwise provided by this code or any regulation adopted pursuant thereto." In addition, fully protected species under the Fish and Game Code Section 3511 (birds), Section 4700 (mammals), Section 5515 (fish), and Section 5050 (reptiles and amphibians) are also considered special-status animal species. Species with no formal special-status designation but thought by experts to be rare or in serious decline may also be considered special-status animal species in some cases, depending on project-specific analysis and relevant, localized conservation needs or precedence.

### *Sensitive Habitats*

Sensitive habitats include riparian corridors, wetlands, habitats for legally protected species, areas of high biological diversity, areas supporting rare or special-status wildlife habitat, and unusual or regionally restricted vegetation types. Vegetation types considered sensitive include those listed on CDFW's *California Natural Communities List* (i.e., those habitats that are rare or endangered within the borders of California) (CDFW, 2025b), those that are occupied by species listed under the ESA or are critical habitat in accordance with the ESA, and those that are defined as Environmentally Sensitive Habitat Areas ("ESHA") under the California Coastal Act ("CCA"). Specific habitats may also be identified as sensitive in city or county general plans or ordinances. Sensitive habitats are regulated under federal regulations (such as the Clean Water Act and Executive Order 11990 – Protection of Wetlands), state regulations (such as

CEQA and the CDFW Streambed Alteration Program), or local ordinances or policies (such as city or county tree ordinances and general plan policies).

## Regulatory Setting

The following regulatory discussion describes the laws that may be applicable to the Project.

### *Federal Regulations*

*Federal Endangered Species Act*

Provisions of the ESA of 1973 (16 USC 1532 et seq., as amended) protect federally Listed Threatened or Endangered species and their habitats from unlawful take. Listed species include those for which proposed and final rules have been published in the Federal Register. The ESA is administered by the USFWS or National Marine Fisheries Service ("NMFS"). In general, NMFS is responsible for the protection of ESA-Listed marine species and anadromous fish, whereas other listed species are under USFWS jurisdiction.

Section 9 of ESA prohibits the take of any fish or wildlife species listed under ESA as endangered or threatened. Take, as defined by ESA, is "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Harm is defined as "any act that kills or injures the fish or wildlife…including significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." In addition, Section 9 prohibits removing, digging up, and maliciously damaging or destroying federally listed plants on sites under federal jurisdiction. Section 9 does not prohibit take of federally listed plants on sites not under federal jurisdiction. If there is the potential for incidental take of a federally listed fish or wildlife species, take of listed species can be authorized through either the Section 7 consultation process for federal actions or a Section 10 incidental take permit (ITP) process for non-federal actions. Federal agency actions include activities that are on federal land, conducted by a federal agency, funded by a federal agency, or authorized by a federal agency (including issuance of federal permits).

*The Clean Water Act*

The U.S. Army Corps of Engineers ("ACOE") and EPA regulate discharge of dredged and fill material into "Waters of the United States" ("waters of the U.S.") under Section 404 of the Clean Water Act ("CWA"). Waters of the U.S. are defined broadly as waters susceptible to use in commerce (including waters subject to tides, interstate waters, and interstate wetlands) and other waters (such as interstate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds) (33 CFR 328.3). Potential wetland areas are identified as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soils conditions."

Under Section 401 of the CWA, any applicant receiving a Section 404 permit from the ACOE must also obtain a Section 401 Water Quality Certification from the Regional Water Quality Control Board

("RWQCB"). A Section 401 Water Quality Certification is issued when a project is demonstrated to comply with state water quality standards and other aquatic resource protection requirements.

*Migratory Bird Treaty Act*

The MBTA of 1918 prohibits killing, possessing, or trading migratory birds except in accordance with regulation prescribed by the Secretary of the Interior. Most actions that result in permanent or temporary possession of a protected species constitute violations of the MBTA. The USFWS is responsible for overseeing compliance with the MBTA and implements Conventions (treaties) between the United States and four countries—Canada, Mexico, Japan, and Russia—for the protection of migratory birds. The USFWS maintains a list of migratory bird species that are protected under the MBTA.

### *State Regulations*

*California Endangered Species Act*

CESA was enacted in 1984. The California Code of Regulations (Title 14, §670.5) lists animal species considered Endangered or Threatened by the State. Section 2090 of CESA requires State agencies to comply with endangered species protection and recovery and to promote conservation of these species. Section 2080 of the Fish and Game Code prohibits "take" of any species that the commission determines to be an Endangered species or a Threatened species. "Take" is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." A Section 2081 ITP from the CDFW may be obtained to authorize "take" of any State Listed species.

*California Native Plant Protection Act*

The CNPPA of 1977 directed the CDFW to carry out the legislature's intent to "preserve, protect and enhance rare and Endangered plants in the State." The CNPPA prohibits importing rare and Endangered plants into California, taking rare and Endangered plants, and selling rare and Endangered plants. The CESA and CNPPA authorized the Fish and Game Commission to designate endangered, threatened, and rare species and to regulate the taking of these species (§2050-2098, Fish and Game Code). Plants listed as rare under the CNPPA are not protected under CESA; however, these plants may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research.

*California Fish and Game Code*

**Birds:** Section 3503 of the Fish and Game Code states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Section 3503.5 prohibits the killing, possession, or destruction of any birds in the orders Falconiformes or Strigiformes (birds-of-prey). Section 3511 prohibits take or possession of fully protected birds. Section 3513 (i.e., the CMBTA) prohibits the take or possession of any migratory nongame birds designated under the federal MBTA. Section 3800 prohibits take of nongame birds.

**Fully Protected Species:** The classification of fully protected was the state's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction.

Lists were created for fish (§5515), mammals (§4700), amphibians and reptiles (§5050), and birds (§3511). Most fully protected species have also been listed as threatened or endangered species under the more recent endangered species laws and regulations. Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

**Species of Special Concern:** As noted above, the CDFW also maintains a list of wildlife "species of special concern." Although these species have no legal status, the CDFW recommends considering these species during analysis of project impacts to protect declining populations and avoid the need to list them as Endangered in the future.

**Sensitive Habitats:** CDFW has jurisdiction over the conservation, protection, and management of wildlife, native plants, and habitat necessary to maintain biologically sustainable populations (§1802). As a trustee agency under CEQA Guidelines Section 15386, CDFW provides expertise in reviewing and commenting on environmental documents and provides protocols regarding potential negative impacts to those resources held in trust for the people of California.

**Lake or Streambed Alteration:** Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW's jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider.

*Porter-Cologne Water Quality Control Act*

The Porter-Cologne Water Quality Control Act of 1969 ("Porter-Cologne") is California's statutory authority for the protection of water quality and applies to surface waters, wetlands, and groundwater, and to both point and nonpoint sources. Under the Porter-Cologne, the SWRCB has the ultimate authority over State water rights and water quality policy. However, Porter-Cologne also establishes nine RWQCBs to oversee water quality on a day-to-day basis at the local/regional level. The Project Study Area is located within Region 3 – Central Coast RWQCB. Porter-Cologne incorporates many provisions of the federal CWA, such as delegation to the SWRCB and RWQCBs of the National Pollutant Discharge Elimination System ("NPDES") permitting program.

Under Porter-Cologne, the state must adopt water quality policies, plans, and objectives that protect the state's waters for the use and enjoyment of the people. Regional authority for planning, permitting, and enforcement is delegate to the nine RWQCBs. The regional boards are required to formulate and adopt water quality control plans for all areas in the region and establish water quality objectives in the plans. The Porter-Cologne sets forth the obligations of the SWRCB and RWQCBs to adopt and periodically update water quality control plans (basin plans). The act also requires waste dischargers to notify the RWQCBs of such activities through filing of Reports of Waste Discharge ("RWD") and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements ("WDRs"), NPDES permits, Section 401 water

quality certifications, or other approvals. The RWQCBs also have authority to issue waivers to RWD requirements and WDRs for broad categories of "low threat" discharge activities that have minimal potential for adverse water quality effects, when implemented according to prescribed terms and conditions.

The term "Waters of the State" is defined by Porter-Cologne as "any surface water or groundwater, including saline waters, within the boundaries of the state." The RWQCB protects all waters in its regulatory scope but has special responsibility for wetlands, riparian areas, and headwaters, including isolated wetlands, and waters that many not be regulated by the ACOE under Section 404 of the CWA. Waters of the State are regulated by RWQCB under the State Water Quality Certification Program, which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne.

*California Coastal Act*

The California Coastal Commission ("CCC") was established by voter initiative in 1972 (Proposition 20) and later made permanent by the California State Legislature through adoption of the CCA of 1976. The CCC, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone. California's coastal zone generally extends 1,000 yards inland from the mean high tide line. In significant coastal estuarine habitat and recreational areas, it extends inland to the first major ridgeline or five miles from the mean high tide line, whichever is less. In developed urban areas, the boundary is generally less than 1,000 yards. Development activities, which are broadly defined by the CCA to include (among others) construction of buildings, divisions of land, and activities that change the intensity of use of land or public access to coastal waters, generally require a Coastal Development Permit ("CDP") from either the CCC or the local government if a Local Coastal Program ("LCP") has been certified. After certification of an LCP, coastal development permit authority is delegated to the appropriate local government, but the CCC retains original permit jurisdiction over certain specified lands (such as tidelands and public trust lands). The Commission also has appellate authority over development approved by local governments in specified geographic areas as well as certain other developments. A CDP is required in addition to any other permit required from resource agencies.

The CCC or the local government may designate areas of rare or unique biological value, such as wetland and riparian habitat and habitats for special-status species, as ESHA. Section 30107.5 of the CCA defines an "environmentally sensitive area" as any area in which plant or animal life or their habitat are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. Development is restricted within the coastal zone and prohibited within designated ESHA, unless the development is coastal dependent and does not have a significant effect on the resources. Section 30240 of the CCA states that "environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas." This section also states that "development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas."

The majority of the Evaluation Area is located within the boundaries of the North Monterey County Land Use Plan ("LUP") (**Figure 1**). Additional information is provided in the Local Regulations section below.

### *Local Regulations*

*Monterey County Code*

Section 16.16.050 (K) of the Monterey County Code identifies that the following standards of construction are required for areas within 200 feet of a river or within 50 feet of a watercourse:

- A setback of two hundred (200) feet from the top of the bank of a river and fifty (50) feet from the top of the bank of a watercourse will be established where encroachment will be prohibited unless it can be proven to the satisfaction of the Monterey County Water Resources Agency that:
    1. The proposed development will not significantly reduce the capacity of existing rivers or watercourses or otherwise adversely affect any other properties by increasing stream velocities or depths, or diverting the flow; and
    2. The proposed new development will be safe from flow related erosion and will not cause flow related erosion hazards or otherwise aggravate flow related erosion hazards.

Section 20.66.020 of the Monterey County Code requires:

- Any development within 100 feet of environmentally sensitive habitat requires the preparation of a biological report.
- Development is allowable if mitigation is provided that mitigates adverse impacts.
- Development on parcels containing or within one hundred (100) feet of environmentally sensitive habitats shall be permitted only if they will not have a significant adverse impact on the habitat's long-term maintenance, either on a development or cumulative basis. Development shall only be approved where conditions of approval are available which will mitigate adverse impacts to and allow for the long-term maintenance of the habitat, as determined through the biological survey.

*North Monterey County Land Use Plan and Coastal Implementation Plan*

The development and resource policies of the North Monterey County LUP guide landowners in assuring that development is compatible with protection of the area. The LUP identifies the land use categories of the Evaluation Area as Agricultural Preservation, Agricultural Conservation, Residential-Rural Density, and Wetlands and Coastal Strand. The portions of the Evaluation Area within the road rights-of-way are not given a land use designation. The North Monterey County LUP calls for the protection and preservation of known ESHA. The LUP identifies that "with the exception of resource dependent uses, all development, including vegetation removal, excavation, grading, filling, and the construction of roads and structures, shall be prohibited in the following [ESHA]: riparian corridors, wetlands, dunes, sites of known rare and endangered species of plants and animals, rookeries, major roosting and haul-out sites, and other wildlife breeding or nursery areas identified as [ESHA]." In addition, "land uses adjacent to locations of [EHSA] shall be compatible with the long-term maintenance of the resource." Specific ESHA identified on the North County LCP Environmentally Sensitive Areas Map in the vicinity of the Evaluation Area include

coastal strand, coastal wetlands, Santa Cruz long-toed salamander habitat, Pajaro River Riparian Woodland, and the following Natural Areas: Bennett Slough, McClusky Slough, Pajaro River Mouth, and Zmudowski State Beach. Although not specifically identified as ESHA, the LUP also provides policies for protection of oak woodland habitat.

The Monterey County Coastal Implementation Plan ("CIP") Part 2 establishes regulation, standards, and procedures to fully implement the policies of the North County LUP, including development standards for the protection, maintenance, and enhancement and restoration of North County ESHA.

*Habitat Conservation Plans or NCCP*

There are no adopted Habitat Conservation Plans ("HCP") or Natural Community Conservation Plans ("NCCP") associated with the Evaluation Area.

# RESULTS

## Vegetation Types

The survey results include mapping and quantification of the acreage of four vegetation types within the Evaluation Area (**Appendix E**). Additionally, the majority of the Evaluation Area is developed (e.g., paved roads and residential landscaping), denuded dirt roads (private and agricultural), or active agriculture. A brief description of each of these areas can be found below. A generalized nomenclature for habitat types is used within this document for ease of reference; however, each habitat type description also lists the *Manual of California Vegetation* (Sawyer et.al., 2009) vegetation type(s) in order to provide a crosswalk to the *Natural Communities List* (CDFW, 2025b). **Table 3** identifies the acreage of each habitat type within the Proposed Project components.

### *Developed*

- *A Manual of California Vegetation* classification(s): N/A
- *California Natural Communities List*: N/A

The majority of the Evaluation Area is developed, including paved roads, agricultural and residential structures, the parking lot area at the Moss Landing Middle School that will be used for staging, and other regularly disturbed areas within the Service Area parcels (**Appendix E**). Areas of landscaping may be present within the developed areas; however, due to the limited vegetation and frequent disturbance these areas are considered to have little biological value. However, some common wildlife species that do well in urbanized areas may be found foraging within the developed areas, including American crow (*Corvus brachyrhynchos*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), California scrub jay (*Aphelocoma californica*), European starling (*Sturnus vulgaris*), western fence lizard (*Sceloporus occidentalis*), and rock dove (*Columba livia*).

### *Ruderal*

- *A Manual of California Vegetation* classification(s): None
- *California Natural Communities List*: Not sensitive

Ruderal areas are those areas which have been subject to historic and ongoing disturbance by human activities and are devoid of vegetation or dominated by non-native and/or invasive weed species. Within the Evaluation Area, ruderal areas mainly consist of disturbed roadside vegetation, iceplant mats, and non-native trees (**Appendix E**). These areas are dominated by non-native weedy species and are regularly maintained. Roadsides within the Evaluation Area are mostly sparsely vegetated; however, dominant species include non-native species such as cheeseweed (*Malva parviflora*), bur clover (*Medicago polymorpha*), wild radish (*Raphanus sativus*), cutleaf plantain (*Plantago coronopus*), ripgut brome (*Bromus diandrus*), black mustard (*Brassica nigra*), prostrate knotweed (*Polygonum aviculare*), common groundsel (*Senecio vulgaris*), rattail sixweeks grass (*Festuca myuros*), and hare barley (*Hordeum murinum* ssp. *leporinum*). These species are also very likely to dominate the private residential yard areas where grass or landscaping plants aren't present. Areas mapped as iceplant mats consist almost purely of

**Table 3.**
**Acreage of Habitat Types within Project Components**

| Component | Habitat Type | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Developed** | **Ruderal** | **Denuded Agricultural & Dirt Roads** | **Active Agriculture** | **Non-Native Annual Grassland** | **Oak Woodland** | **Riparian** | ***Total*** |
| **Transmission Main Pipeline** | 17.7 ac | 2.5 ac | 1.7 ac | 0.5 ac | | | 0.1 ac | ***22.5 ac*** |
| **SMWS Well Site, Transmission Booster Pump Station** | 0.9 ac | 0.02 ac | | | | 0.1 ac | | ***1.0 ac*** |
| **SMWS Tank Site Improvements** | 0.1 ac | | | | | | | ***0.1 ac*** |
| **PWS Well #1 Site, Fe & Mn Treatment System** | 0.3 ac | 0.1 ac | | | | | | ***0.4 ac*** |
| **PWS Tank Rehabilitation** | 1.5 ac | 0.8 ac | | | | | | ***2.3 ac*** |
| **Bluff-Jensen Expansion Distribution Pipeline** | 5.6 ac | 2.9 ac | 1.3 ac | | | | | ***9.8 ac*** |
| **Bluff-Jensen Tank & Booster Pump Station** | | 0.04 ac | 0.03 ac | 0.4 ac | | | | ***0.5 ac*** |
| **Bluff-Jensen Service Areas** | 8.3 ac | 2.0 ac | 3.1 ac | 1.0 ac | | | (Present Adjacent) | ***14.4 ac*** |
| **Springfield Distribution Pipeline** | 1.1 ac | 0.6 ac | 0.3 ac | | | | (Present Adjacent) | ***2.0 ac*** |
| **Springfield Service Areas** | 0.5 ac | 0.5 ac | | | | | | ***1.0 ac*** |
| **Potential Additional Staging Areas** | 0.7 | | 0.2 | | 2.4 ac | | | ***3.4 ac*** |
| ***Total*** | ***36.7 ac*** | ***9.5 ac*** | ***6.6 ac*** | ***1.9 ac*** | ***2.4 ac*** | ***0.1 ac*** | ***0.1 ac*** | ***57.3 ac*** |

hottentot fig (*Carpobrotus edulis*), while areas of non-native trees contain species such as Monterey cypress (*Cupressus macrocarpa* [planted]), and eucalyptus (*Eucalyptus globulus*).

Ruderal areas provide only low-quality habitat for plants and wildlife. Similar to developed areas, ruderal habitats have little biological value, but common wildlife species that do well in urbanized areas may be found foraging in these areas and various avian species may nest within trees.

### *Denuded Agricultural and Dirt Roads*

- *A Manual of California Vegetation* classification(s): N/A
- *California Natural Communities List*: N/A

Denuded areas within the Evaluation Area consist of private and agricultural dirt roads (**Appendix E**). These areas are highly compacted, maintained free of vegetation, and are frequently used. In addition, a portion of the proposed staging area at the Moss Landing Middle School is denuded due to its current use as a staging area for another project. Similar to developed areas, these areas have little biological value, but common wildlife species that do well in urbanized areas may be found foraging along denuded dirt roads.

### *Active Agriculture*

- *A Manual of California Vegetation* classification(s): N/A
- California Natural Communities List: N/A

Active agricultural areas within the Evaluation Area (**Appendix E**) are regularly disturbed and maintained, and provide only low-quality habitat for wildlife. However, many avian species may be found foraging, small mammal species may nest and forage, and various types of wildlife may disperse or migrate through agricultural areas. These areas may also be left fallow at certain time of year, which may provide additional habitat for wildlife species.

### *Non-native Annual Grassland*

- *A Manual of California Vegetation* classification(s): Wild Oats Grassland (*Avena barbata*, *fatua* Semi-natural Herbaceous Alliance) and Annual Brome Grasslands (*Bromus diandrus, hordeaceus – Brachypodium distachyon* Semi-Natural Herbaceous Stands)
- *California Natural Communities List*: Not sensitive

Non-native annual grasslands are those areas which have been disturbed by human activities and by non-native grasses and forbs. Non-native annual grassland is present within the staging area along Hilltop Road (**Appendix E**). Dominant species present include ripgut brome, slender oat, and soft chess (*B. hordeaceus*). Common wildlife species that may occur within the non-native annual grasslands include California ground squirrel, house sparrow (*Passer domesticus*), scrub jay, northern Pacific rattlesnake (*Crotalus oreganus oreganus*), Pacific gophersnake (*Pituophis catenifer catenifer*), western fence lizard, northern alligator lizard (*Elgaria coerulea*), and rock dove.

### *Oak Woodland*

- *A Manual of California Vegetation* classification(s): Coast live oak woodland (*Quercus agrifolia*/*Rubus spp./Pteridium aquilinum* association)
- *California Natural Communities List*: Not Sensitive

Oak woodland habitat within the Evaluation Area is present at the Transmission Booster Pump Station site (**Appendix E**). This area is a small remnant patch of habitat surrounded by development and is highly disturbed by the adjacent uses, including the existing SMWS wells. Within this area coast live oak (*Quercus agrifolia*) dominates the canopy while the understory is mostly maintained and contains leaf litter with only a few weedy herbaceous species. California blackberry (*Rubus ursinus*), poison hemlock (*Conium maculatum*), fennel (*Foeniculum vulgare*), and jubata grass (*Cortaderia jubata*) are also found along the margins in less-maintained areas.

Oaks provide nesting sites for many avian species and cover for a variety of mammals, including mourning dove, northern flicker (*Colaptes auratus*), American kestrel (*Falco sparverius*), California ground squirrel, and California pocket mouse (*Chaetodipus californicus*). Acorns provide an important food source for acorn woodpecker (*Melanerpes formicivorus*), California scrub jay, California quail (*Callipepla californica*), and black-tailed deer (*Odocoileus hemionus columbianus*).

### *Riparian*

- *A Manual of California Vegetation* classification(s): Arroyo willow thickets (*Salix lasiolepis* shrubland alliance)
- *California Natural Communities List*: Sensitive

Riparian habitats are those plant communities supporting woody vegetation found along rivers, creeks, streams, canyon bottom drainages, and seeps. They can range from a dense thicket of shrubs to a closed canopy of large mature trees. The Project has been designed to avoid riparian habitat to the greatest extent feasible; however, a small riparian area is present within the Transmission Main component easement, just north of the intersection of SR 1 and Springfield Road. Riparian habitat in this area is associated with a drainage that conveys water under SR 1, daylights in the Evaluation Area, then runs southwest towards Springfield Road and ultimately McClusky Slough. Riparian habitat is also present immediately adjacent to the Evaluation Area in several locations, including areas surrounding Struve Pond and Werner Lake (see sensitive habitat discussion below).

Riparian areas provide habitat for many wildlife species, particularly birds and herpetofauna. Common species that may be found within the riparian habitat in the site includes Sierran treefrog (*Pseudacris sierra*), Monterey ensatina (*Ensatina eschscholtzii eschscholtzii*), and red-winged blackbird (*Agelaius phoeniceus*).

## Sensitive Habitats

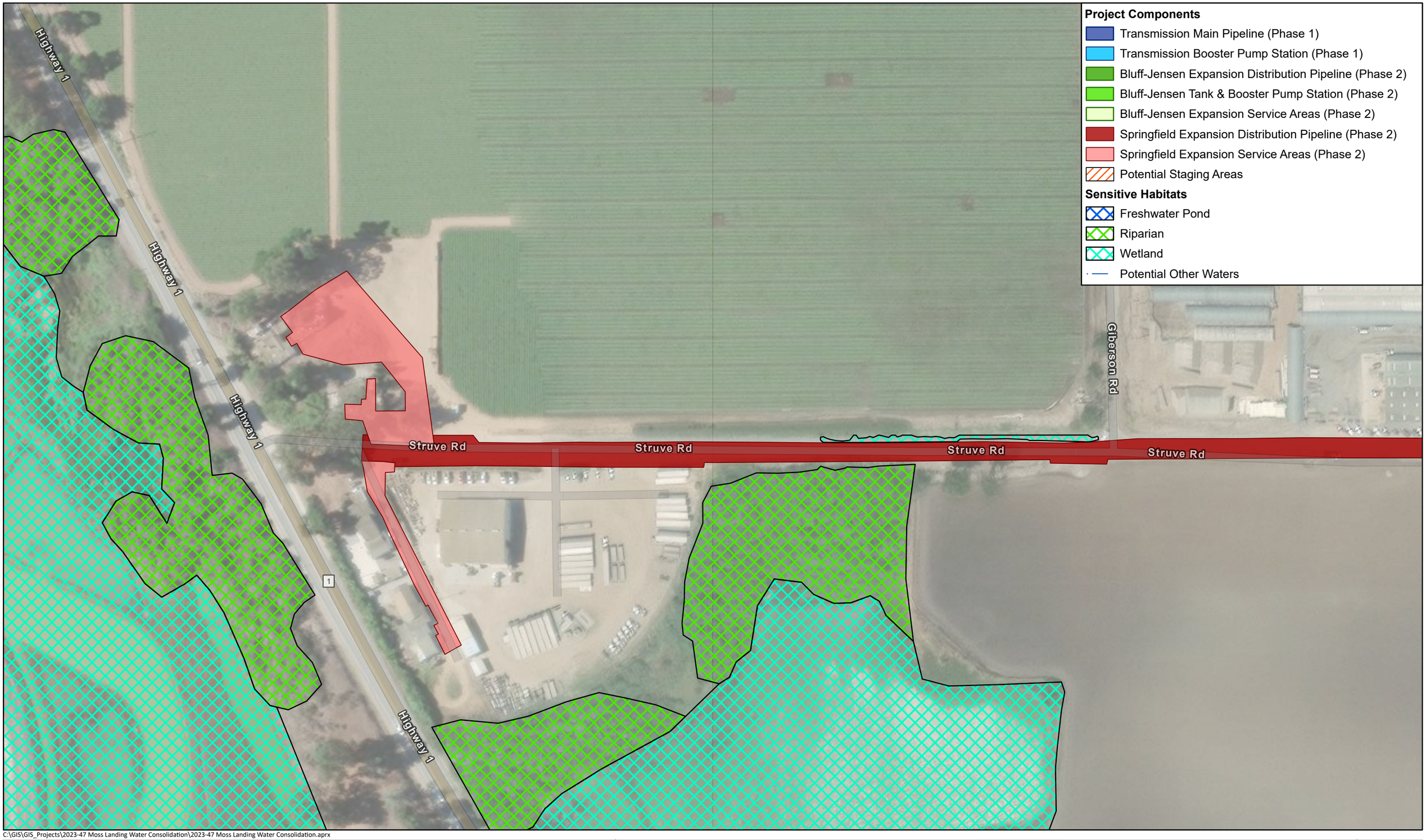
### *Riparian*

The Arroyo willow floristic alliance Arroyo willow thickets [*Salix lasiolepis* shrubland alliance]) occurring within the riparian habitat is identified as sensitive on CDFW's *California Natural Communities List* (CDFW, 2025b). This sensitive habitat type is also present immediately adjacent to the Evaluation area in several locations (**Figure 3**). Adjacent to the Transmission Main component, riparian habitat is present 1) north and south of Werner Road; 2) west of Hilltop Road near the agricultural facilities; and 3) east and west of Elkhorn Road, associated with Werner Lake. Adjacent to the Bluff-Jensen Expansion Area, riparian habitat is present adjacent to the terminus of the distribution pipeline along Trafton Road and a nearby service area. Adjacent to the Springfield Expansion Area, riparian habitat is present east of Struve Road, associated with Struve Pond. Additionally, riparian areas are subject to the jurisdiction of CDFW under Section 1602 of the Fish and Game Code and are considered ESHA under the CCA.

### *Wetlands and Other Waters*

Roadside ditches are present within and adjacent to the Evaluation Area; however, none of these ditches have a continuous surface connection to any traditional navigable waters (TNWs), and therefore these ditches do not meet the definition of waters of the U.S. as identified in CFR 328.3(a)(8). Most of these ditches are regularly maintained agricultural ditches that are devoid of vegetation or support only sparse ruderal vegetation or only upland plant species. Only one ditch, located on the west side of Struve Road across from the Bennett Slough riparian habitat (**Figure 3**), was observed to support wetland vegetation. The ditch is dominated by watercress (*Nasturtium officinale*), smartweed (*Persicaria* sp.), and cattail (*Typha* sp.). Other wetland species observed include duckweed (*Lemna* sp.), rabbitfoot grass, and brass buttons (*Cotula coronopifolia*), and some weedy species are also present including wild radish, poison hemlock, willowherb (*Polygonum* sp.), and cheeseweed. Shallow surface water was also observed within this ditch in May 2024. The source of hydrology appears to be agricultural runoff based on the presence of several pipes and culverts from adjacent agricultural fields.

Data to delineate wetlands within the ditch was not collected as set forth in *The Field Guide for Wetland Delineation: 1987 Corps of Engineers Manual* (Wetland Training Institute, 1995) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (ACOE, 2008). However, the boundaries of the wetland vegetation and observed hydrology were mapped and the Proposed Project has been designed to avoid impacts to the potentially jurisdictional wetland. This area would be considered ESHA under the CCA and may be considered a state wetland by the RWQCB.




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# PSMS Area Regional Consolidation Project
# Sensitive Habitats

N

0 100 200 400 Feet

Date
9/22/2025

Scale
1in = 167 ft

DENISE DUFFY & ASSOCIATES, INC.
Planning and Environmental Consulting

Figure
3A

**Project Components**

- Transmission Main Pipeline (Phase 1)
- Transmission Booster Pump Station (Phase 1)
- Bluff-Jensen Expansion Distribution Pipeline (Phase 2)
- Bluff-Jensen Tank & Booster Pump Station (Phase 2)
- Bluff-Jensen Expansion Service Areas (Phase 2)
- Springfield Expansion Distribution Pipeline (Phase 2)
- Springfield Expansion Service Areas (Phase 2)
- Potential Staging Areas

**Sensitive Habitats**

- Freshwater Pond
- Riparian
- Wetland
- Potential Other Waters

Springfield Rd

Springfield Rd

Springfield Rd

Highway 1

Highway 1

Highway 1

Highway 1

Highway 1

Highway 1

Highway 1

Highway 1

Highway

C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

# PSMS Area Regional Consolidation Project
# Sensitive Habitats

N

0 100 200 400 Feet

Date
9/22/2025

Scale
1in = 167 ft

DENISE DUFFY & ASSOCIATES, INC.
Planning and Environmental Consulting

Figure
3B




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# PSMS Area Regional Consolidation Project
# Sensitive Habitats

N

0 100 200 400 Feet

Date
9/22/2025

Scale
1in = 167 ft

DENISE DUFFY & ASSOCIATES, INC.
Planning and Environmental Consulting

Figure
3C




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# PSMS Area Regional Consolidation Project
# Sensitive Habitats

N

0 100 200 400 Feet

Date
9/22/2025

Scale
1in = 167 ft

DENISE DUFFY & ASSOCIATES, INC.
Planning and Environmental Consulting

Figure
3D

**Project Components**

- Transmission Main Pipeline (Phase 1)
- Transmission Booster Pump Station (Phase 1)
- Bluff-Jensen Expansion Distribution Pipeline (Phase 2)
- Bluff-Jensen Tank & Booster Pump Station (Phase 2)
- Bluff-Jensen Expansion Service Areas (Phase 2)
- Springfield Expansion Distribution Pipeline (Phase 2)
- Springfield Expansion Service Areas (Phase 2)
- Potential Staging Areas

**Sensitive Habitats**

- Freshwater Pond
- Riparian
- Wetland
- Potential Other Waters

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# PSMS Area Regional Consolidation Project
# Sensitive Habitats

N

0 100 200 400 Feet

Date
9/22/2025

Scale
1in = 167 ft

DENISE DUFFY & ASSOCIATES, INC.
Planning and Environmental Consulting

Figure
3E

**Project Components**

- Transmission Main Pipeline (Phases 1)
- Transmission Booster Pump Station (Phase 1)
- Bluff-Jensen Expansion Distribution Pipeline (Phase 2)
- Bluff-Jensen Tank & Booster Pump Station (Phase 2)
- Bluff-Jensen Expansion Service Areas (Phase 2)
- Springfield Expansion Distribution Pipeline (Phase 2)
- Springfield Expansion Service Areas (Phase 2)
- Potential Staging Areas

**Sensitive Habitats**

- Freshwater Pond
- Riparian
- Wetland
- Potential Other Waters

Meadow Way
Verde W
o Way
Werner Rd
Salinas Rd
Salinas Rd
Salinas Rd
Werner Rd
Werner Rd
Salinas Rd
Salinas Rd
Elkhorn Rd
Elkhorn Rd
Elkhorn Rd
Elkhorn Rd
Elkhorn Rd
G12
Southern Pacific Railroad
Southern Pacific Railroad
Southern Pacific Railroad

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# PSMS Area Regional Consolidation Project
# Sensitive Habitats

N

0 100 200 400 Feet

Date
9/22/2025

Scale
1in = 167 ft

DENISE DUFFY & ASSOCIATES, INC.
Planning and Environmental Consulting

Figure
3F

## Special-Status Species

Published occurrence data within the Proposed Project areas and surrounding USGS quadrangles were evaluated to compile a table of special-status species known to occur in the vicinity of the Evaluation Area (**Appendix D**). Each of these species was evaluated for their likelihood to occur within and immediately adjacent to the Evaluation Area. The special-status species that are known to or have been determined to have a moderate to high potential to occur within or immediately adjacent the Evaluation Area are discussed below. All other species within the table were determined to be "not present" based on focused surveys and/or lack of specialized habitat features, are assumed "unlikely to occur" due to lack of suitable habitat, or have a low potential to occur for the species-specific reason presented in **Appendix D**. **Table 4** below provides a summary of the components where each species discussed below may occur.

*Pallid Bat*

The pallid bat (*Antrozous pallidus*) is CDFW species of special concern, and year-round resident in California. Pallid bat occurs in a wide variety of habitats including grasslands, shrublands, arid desert areas, oak savanna, coastal forested areas, and coniferous forests of the mountain regions of California and forests ranging from sea level up through species seems to prefer rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Pallid bats make use of similar structures for night roosting and will use more open sites such as eaves, awnings, and open areas under bridges for feeding roosts. Copulation occurs in the fall, October through December. Females store the sperm and ovulation occurs in the following spring. Parturition timing is determined by local climate and embryonic development usually takes about 9 weeks with birth occurring in May or June. Maternity colonies range from 20 to 200 individual adult bats, while males roost in much smaller groupings (Hermanson and O'Shea, 1983).

The SR 1 overpass within the Transmission Main component and trees within adjacent to the components identified in **Table 4** may provide suitable night roost habitat for pallid bats; pallid bats may also use eaves and awnings of buildings within and adjacent to the Evaluation Area for night roosts. This species may also forage within the Evaluation Area. The CNDDB reports one occurrence of the pallid bat within the quadrangles reviewed; this is a non-specific occurrence from 1949 located approximately 15.5 miles northwest of the SR 1/Salinas Road overpass; however, an additional occurrence is present approximately 10.5 miles east in the San Juan Bautista quadrangle.

*Monterey Dusky-Footed Woodrat*

The Monterey dusky-footed woodrat (*Neotoma macrotis luciana;* "MDFW") is a CDFW species of special concern. This is a subspecies of the dusky-footed woodrat *(Neotoma macrotis)*, which is common to oak woodlands throughout California. MDFW are frequently found in forest habitats with moderate canopy cover and a moderate to dense understory; however, they may also be found in chaparral communities. Relatively large nests are constructed of grass, leaves, sticks, and feathers and are built in protected spots, such as rocky outcrops or dense brambles of blackberry and/or poison oak. Typical food sources for this

**Table 4.**
**Special-Status Species Potential within Project Components**

| Component | Special-Status Species Presence/Potential Presence | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Pallid Bat | Monterey Dusky-Footed Woodrat | Monterey Shrew | Tricolored Blackbird | Western Burrowing Owl | White-tailed Kite | Loggerhead Shrike | Nesting Birds | California Tiger Salamander | California Red-legged Frog | Santa Cruz Long-toed Salamander | Coast Range Newt | Crotch Bumble Bee | Western Bumble Bee |
| **Transmission Main Pipeline** | X | X | X | A[1] | A | X | X | X | X | X | X | A | X | X |
| **SMWS Well Site, Transmission Booster Pump Station** | X | X | | | | X | X | X | | X | | X | X | X |
| **SMWS Tank Site Improvements** | | | | | | | | A | | | | | | |
| **PWS Well #1 Site, Fe & Mn Treatment System** | | | | | | | | X | | | | | | |
| **PWS Tank Rehabilitation** | | | | | | | | X | | | | | | |
| **Bluff-Jensen Expansion Distribution Pipeline** | X | A | | | | X | X | X | X | X | A | | X | X |
| **Bluff-Jensen Tank & Booster Pump Station** | | | | | | | | | X | X | | | X | X |
| **Bluff-Jensen Service Areas** | X | A | A | | | X | X | X | X | X | A | | X | X |
| **Springfield Distribution Pipeline** | A | A | A | A | | A | A | A | X | X | A | A | X | X |
| **Springfield Service Areas** | X | | | | | X | X | X | X | X | | | X | X |
| **Potential Additional Staging Areas** | A | | | | X | A | A | A | X | X | | | X | X |

[1] A = Present or Potentially Present Adjacent to Component

species include leaves, flowers, nuts, berries, and truffles. MDFW may be a significant food source for small- to medium-sized predators. Populations of this species may be limited by the availability of nest material. Within suitable habitat, nests are often found in close proximity to each other.

Suitable habitat for this species is present within the riparian habitat within the Transmission Main component and the oak woodland habitat within the Transmission Booster Pump Station site. Additional suitable habitat is present adjacent to these components, as well as the Bluff-Jensen Service Areas, and Springfield Distribution Pipeline. The CNDDB reports one occurrence of the MDFW within the quadrangles reviewed, located approximately 18 miles south of the Springfield Distribution Pipeline and Service Areas; however, this species is known to occur throughout the County.

*Monterey Shrew*

The Monterey shrew (*Sorex ornatus salarius*) is a CDFW species of special concern. In general, this shrew is common in the southern two-thirds of California west of the Sierra Nevada, from Mendocino to Butte counties, south to the Mexican border. It occupies a variety of mostly moist or riparian woodland habitats and also occurs within chaparral, grassland, and emergent wetland habitats where there is thick duff or downed logs. The breeding season is long; while most pregnancies occur in March and April, they may occur from February through October. The litter size is about six and females may have more than one litter per year. Most individuals do not live to breed a second year. Foraging occurs under logs rocks and leaf litter, and prey items are mostly insects and some other invertebrates.

Suitable habitat for this species is present in the riparian area within and adjacent to the Transmission Main component and the riparian and emergent wetland habitats adjacent to the Springfield Distribution Pipeline and Bluff-Jensen Service Areas. The CNDDB reports two occurrences of the Monterey shrew within the quadrangles reviewed, the nearest of which is located approximately 1.5 miles south of the suitable habitat within the Transmission Main component.

*Tricolored Blackbird*

The tricolored blackbird (*Agelaius tricolor*) is a state threatened species. This species is common locally throughout the Central Valley and in coastal districts from Sonoma County south. These birds are summer residents in northeastern California, occurring regularly only at Tule Lake, but found as far south as Honey Lake in some years. In winter, this species becomes more widespread along the central coast and San Francisco Bay area (Grinnell and Miller, 1944). Tricolored blackbirds breed near fresh water, preferably in emergent wetlands with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, and tall herbs, which also serve as their preferred nesting habitat. Nests are built of mud and plant materials over or near fresh water, especially in emergent wetlands. This species is highly colonial and the minimum nesting colony size is about 50 pairs (Grinnell and Miller 1944). Drinking water is probably required, at least when seeds and grains are the major foods.

Suitable habitat is present within the riparian habitat adjacent to the Transmission Main component near Werner Lake and the pond on Hilltop Road, and adjacent to the Springfield Distribution pipeline near Struve Pond. The riparian habitat within the Transmission Main component may provide only marginal

habitat for this species. The CNDDB reports nine occurrences of the tricolored blackbird within the quadrangles reviewed, the nearest of which are located at Werner Lake approximately 300 feet east of the Transmission Main component and at Elkhorn Slough, two miles northeast of the riparian habitat adjacent to the Springfield Distribution pipeline. Several eBird occurrences are reported in the vicinity; however, these occurrences are concentrated around the sloughs.

*Western Burrowing Owl*

The western burrowing owl (*Athene cunicularia;* "WBO") is a CDFW species of special concern. Burrowing owls are a year round resident of open, dry grassland and desert habitats, and grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. In general, WBO frequent open grasslands and shrublands with perches and burrows. WBO use rodent burrows (often California ground squirrel) for roosting and nesting cover. These burrows are lined with excrement, pellets, debris, grass, and feathers (occasionally are unlined). Pipes, culverts, and nest boxes may be substituted for burrows in areas where burrows are not available. Breeding occurs from March through August, with the peak occurring in April and May. This species is semicolonial and is probably the most gregarious owl in North America. WBO eat mostly insects, but small mammals, reptiles, birds, and carrion are also taken. This species usually hunts from a perch and hovers, hawks, dives, and hops after prey on the ground. Conversion of grassland to agriculture, poisoning of ground squirrels, and other forms of habitat destruction have led to the reduction in their numbers in the recent decades.

Marginal nesting habitat for this species is present in the non-native annual grassland within the potential staging area along Hilltop Road. In addition, fallow agricultural fields (if present at the time of construction) adjacent to all pipeline components may provide suitable habitat for this species. The CNDDB reports 13 occurrences of the WBO within the quadrangles reviewed, the nearest of which is located approximately 0.8 mile southeast of the suitable habitat adjacent to the Transmission Main component. Several eBird occurrences are also reported in the vicinity; however, these occurrences are concentrated around the sloughs and are absent from the agricultural areas.

*White-Tailed Kite*

The white-tailed kite is a CDFW fully protected species. This raptor species is a fairly common to uncommon, year-long resident in coastal and valley lowlands. This species generally utilizes herbaceous lowlands with variable tree growth and an associated high population density of voles. Nests are made of loosely piled sticks and twigs and lined with grass, straw, or rootlets. Nests are generally placed near the top of a dense oak, willow, or other tree stands (usually 6-20 meters [20-100 feet] above ground), and are often located near an open foraging area. Breeding occurs from February to October with peak activity occurring from May to August. Foraging occurs in undisturbed open grasslands, meadows, farmlands, and emergent wetlands.

Trees within and adjacent to most of the Project components (see **Table 4**) may provide suitable nesting habitat for white-tailed kite and this species may forage over all open areas of the Evaluation Area. The CNDDB reports one occurrence of the white-tailed kite within the quadrangles reviewed, the nearest of which is located approximately 2.8 miles east/southeast of the Springfield Distribution component. In

addition, several eBird occurrences are reported in the vicinity, including several along Hilltop Road, Bluff Road, Trafton Road, and Struve Road.

*Loggerhead Shrike*

The loggerhead shrike (*Lanius ludovicianus*) is a CDFW species of special concern. This species frequents open habitats with sparse shrubs and trees, suitable perches, and low or sparse herbaceous cover. This species occurs only rarely in heavily urbanized areas, but are often found in open agricultural areas with associated fencing. Nests are built upon a stable branch in densely-foliaged shrubs or trees, usually well-concealed. Nest height averages 0.4 to 15 meters (1.3 to 50 feet) above ground. Breeding occurs from March to May, with peak activity occurring in July or August. Loggerhead shrikes mainly eat large insects, but may also take small birds, mammals, amphibians, reptiles, fish, carrion, and various invertebrates. This species frequently skewers prey on a thorn, sharp twig, wire barb, or forces it into a tree crotch as a food cache for later consumption.

Trees within and adjacent to most of the Project components (see **Table 4**) may provide suitable nesting habitat for loggerhead shrike and this species may forage over all open areas of the Evaluation Area. The CNDDB does not report any occurrences of the loggerhead shrike within the quadrangles reviewed; however, several eBird occurrences are reported in the vicinity, including along Bluff Road and south of the Moss Landing Middle School.

*Raptors and Other Protected Avian Species*

Raptors, their nests, and other nesting birds are protected under California Fish and Game Code, the CMBTA, and the MBTA. While the life histories of these species vary, overlapping nesting and foraging similarities (approximately February through August) allow for their concurrent discussion. Most raptors are breeding residents throughout most of the wooded portions of the state. Stands of live oak, riparian deciduous, or other forest vegetation types, are used most frequently for nesting. Breeding occurs February through August, with peak activity May through July. Prey for these species includes small birds, small mammals, and some reptiles and amphibians. Many raptor species hunt in open woodland and habitat edges.

Various common raptor species, such as red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk, great horned owl (*Bubo virginianus*), American kestrel (*Falco sparverius*), great horned owl (*Bubo virginianus*), western screech owl (*Megascops kennicottii*), and turkey vulture (*Cathartes aura*), and other common avian species, such as tree swallow (*Tachycineta bicolor*), black phoebe (*Sayornis nigricans*), Anna's hummingbird (*Calypte anna*), and California flicker have a potential to nest within any of the trees present within and adjacent to the Evaluation Area. Other common avian species, such as red-winged blackbird (*Agelaius phoeniceus*), song sparrow (*Melospiza melodia*), and California quail may also nest within the ruderal and non-native annual grassland habitats.

*California Tiger Salamander*

The California tiger salamander (*Ambystoma californiense*; "CTS") is a federal and state threatened species. The CTS is a large, stocky salamander most commonly found in annual grassland habitat, but also

occurring in the grassy understory of valley-foothill hardwood and chaparral habitats, and uncommonly along stream courses in valley-foothill riparian habitats (USFWS, 2004). Adults spend most of their lives underground, typically in burrows of ground squirrels and other animals (USFWS, 2004). CTS have been eliminated from an estimated 55 percent of its documented historic breeding sites. Currently, about 150 known populations of California tiger salamanders remain. CTS persist in disjunct remnant vernal pool complexes in Sonoma County and Santa Barbara County, in vernal pool complexes and isolated stockponds scattered along a narrow strip of rangeland on the fringes of the Central Valley from southern Colusa County south to northern Kern County, and in sag ponds and human maintained stockponds in the coast ranges from the San Francisco Bay Area south to the Temblor Range.

Above-ground migratory and breeding activity may occur under suitable environmental conditions from mid-October through May. Adults may travel long distances between upland and breeding sites; adults have been found two kilometers (1.24 miles) from breeding sites (USFWS, 2004). Breeding occurs from November to February, following relatively warm rains (Stebbins, 2003). CTS breed and lays eggs primarily in vernal pools and other temporary rainwater ponds. Permanent human-made ponds are sometimes utilized if predatory fishes are absent; streams are rarely used for reproduction. Eggs are laid singly or in clumps on both submerged and emergent vegetation and on submerged debris in shallow water (Stebbins, 1972; Jennings and Hayes, 1994). Males typically spend 6-8 weeks at breeding ponds, while females typically spend only 1-2 weeks (Loredo et al., 1996). Eggs hatch within 10-14 days (USFWS, 2004) and a minimum of 10 weeks is required to complete development through metamorphosis (Jennings and Hayes, 1994), although the larval stage may last up to six months and some larvae in Contra Costa and Alameda Counties may remain in their breeding sites over the summer (USFWS, 2004).

No suitable breeding habitat is present within the Evaluation Area; however, the majority of the Evaluation Area is within the dispersal distance of known or potential CTS breeding resources (**Figure 4**). Suitable upland habitat for CTS is present within all undeveloped areas of the components identified in **Table 4**, particularly the non-native annual grassland and ruderal areas where small mammal burrows are present. Marginal habitat may also be present in active agricultural areas.

The CNDDB reports 37 occurrences of CTS within the seven quadrangles evaluated, including one occurrences from 1973 that overlaps the Springfield Expansion Area (**Figure 4**). The CNDDB occurrence notes that CTS were observed adjacent to Elkhorn Slough, 1.25 miles north of Moss Landing; based on this description, it is possible that the occurrence is within Bennett Slough/Struve Pond, which is located north of, but connected to Elkhorn Slough. The Bennett Slough/Struve Pond area is located approximately 230 feet (70 meters) east of the Springfield Distribution Pipeline along Struve Road. A specific occurrence is located approximately 330 feet (100 meters) from one of the Bluff-Jensen Service Areas, located south of Jensen Road (**Figure 4**), where adult CTS were observed in 2008 near a pond that may provide suitable breeding habitat; however, no breeding was documented for this occurrence. Access to the pond was not permitted by the property owner and conditions could not be evaluated from the Evaluation Area as it is completely surrounded by silt fencing, which may preclude current use of the pond by CTS. Data provided by the Rare Amphibian Detection in California ("RADICAL") team, which is made up of scientists from Elkhorn Slough Reserve, UC Santa Cruz, Santa Lucia Reserve, Service, and Washington State University,

Phase 1 - Water System Consolidation
Phase 2 - Bluff-Jensen Expansion
Phase 2 - Springfield Expansion
Potential Additional Staging Areas
2.2km Buffer of Evaluation Area
CTS CNDDB Occurrence

**CTS RADICAL Data**

CTS Occurrence
No Detections
No Data
380m Buffer of Known CTS Resources
630m Buffer of Known CTS Resources
1km Buffer of Known CTS Resources
2.2km Buffer of Known CTS Resources

**Aquatic Features**

Lake/Pond
Reservoir
Swamp/Marsh/Emergent Wetland
Stream/River
Stream/River
Canal/Ditch
Connector

0 0.25 0.5 1 mi
N

CNDDB #824
2008

CNDDB #256
1973
RADICAL
"Struve Pond"
1974

RADICAL
"Fox Reservoir"
2021

Watsonville
Seaview Ranch Park
Lee Rd
W Beach St
E Riverside Dr
W Riverside Dr
San Juan Rd
Allison Ln
Ingram Ct
Railroad Ave
Storm Rd
Hayes Rd
Lewis Rd
Salinas Rd
Judd Rd
129
Beach Rd
Trafton Rd
1
Garin Rd
Cabrillo Hwy N
Pajaro Valley Golf Club
Bay Farms Rd
Hudson Landing Rd
Miller Rd
Las Lomas
Pajaro Dunes
Rio Boca Rd
Hwy 1
Highway 1
Elkhorn Rd
Berry Rd
Bluff Rd
Jensen Rd
Pajaro River Mouth Natural Preserve
Zmudowski State Beach
Springfield Rd
Moss Landing Middle School
Santa Cruz Long-Toed Salamander Ecological Reserve
McClusky Slough
Struve Rd
Moss Landing Wildlife Area
Elkhorn Slough Visitor Center
Moss Landing State Beach
Dolan Rd
Moss Landing

| | | | |
|---|---|---|---|
| PSMS Area Regional Consolidation Project<br>California Tiger Salamander Occurrence Map | Date<br>9/22/2025<br>Scale<br>1 in = 0.5 mi | DENISE DUFFY & ASSOCIATES, INC.<br>Planning and Environmental Consulting | Figure<br>4 |

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also reports an occurrence of CTS within Fox Reservoir in 2021, located approximately 1.6 km east of the Springfield Distribution Pipeline, 1.4 km southeast of the terminus of the Transmission Main at the intersection of SR 1 and Springfield Road, and 1.2 km south of the potential staging area at the Moss Landing Middle School.

*California Red-Legged Frog*

The CRLF is listed as a federally Threatened and is also a CDFW species of special concern (USFWS, 1996). The CRLF is the largest native frog in California (44-131 mm snout-vent length) and was historically widely distributed in the central and southern portions of the state (Jennings and Hayes, 1994). Adults generally inhabit aquatic habitats with riparian vegetation, overhanging banks, or plunge pools for cover, especially during the breeding season (Jennings and Hayes, 1988). They may take refuge in small mammal burrows, leaf litter, or other moist areas during periods of inactivity or to avoid desiccation (Rathbun et al., 1993; Jennings and Hayes, 1994). Radiotelemetry data indicates that adults engage in straight-line breeding season movements irrespective of riparian corridors or topography and they may move up to two miles between non-breeding and breeding sites (Bulger et al., 2003). During the non-breeding season, a wider variety of aquatic habitats are used including small pools in coastal streams, springs, water traps, and other ephemeral water bodies (USFWS, 1996). CRLF may also move up to one mile (1.6 km) from aquatic and riparian habitats into surrounding upland habitats for shelter or to forage. These upland habitats include various vegetation types, such as grassland, woodland, forest, and wetlands that contain structural features such as boulders, rocks, organic debris (e.g., downed trees and logs), small mammal burrows, and moist leaf litter (USFWS, 2010).

This species requires still or slow-moving water during the breeding season where it can deposit large egg masses, which are most often attached to submergent or emergent vegetation. Breeding typically occurs between December and April depending on annual environmental conditions and locality. Eggs require 6 to 12 days to hatch and metamorphosis generally occurs after 3.5 to 7 months, although larvae are also capable of over-wintering. Following metamorphosis, generally between July and September, juveniles are 25-35 mm in size. Juvenile CRLF appear to have different habitat needs than adults. Jennings and Hayes (1988) recorded juvenile frogs mostly from sites with shallow water and limited shoreline or emergent vegetation. Additionally, it was important that there be small one-meter breaks in the vegetation or clearings in the dense riparian cover to allow juveniles to sun themselves and forage, but to also have close escape cover from predators. Jennings and Hayes also noted that tadpoles have different habitat needs and that in addition to vegetation cover, tadpoles use mud. It is speculated that CRLF larvae are algae grazers, however, foraging larval ecology remains unknown (Jennings, et al., 1993).

It has been shown that occurrences of CRLF are negatively correlated with presence of non-native bullfrogs (Moyle, 1973; Jennings and Hayes, 1986 and 1988), although both species are able to persist at certain locations, particularly in the coastal zone. It is estimated that CRLF has disappeared from approximately 75% of its former range and has been nearly extirpated from the Sierra Nevada, Central Valley, and much of southern California (USFWS, 1996).

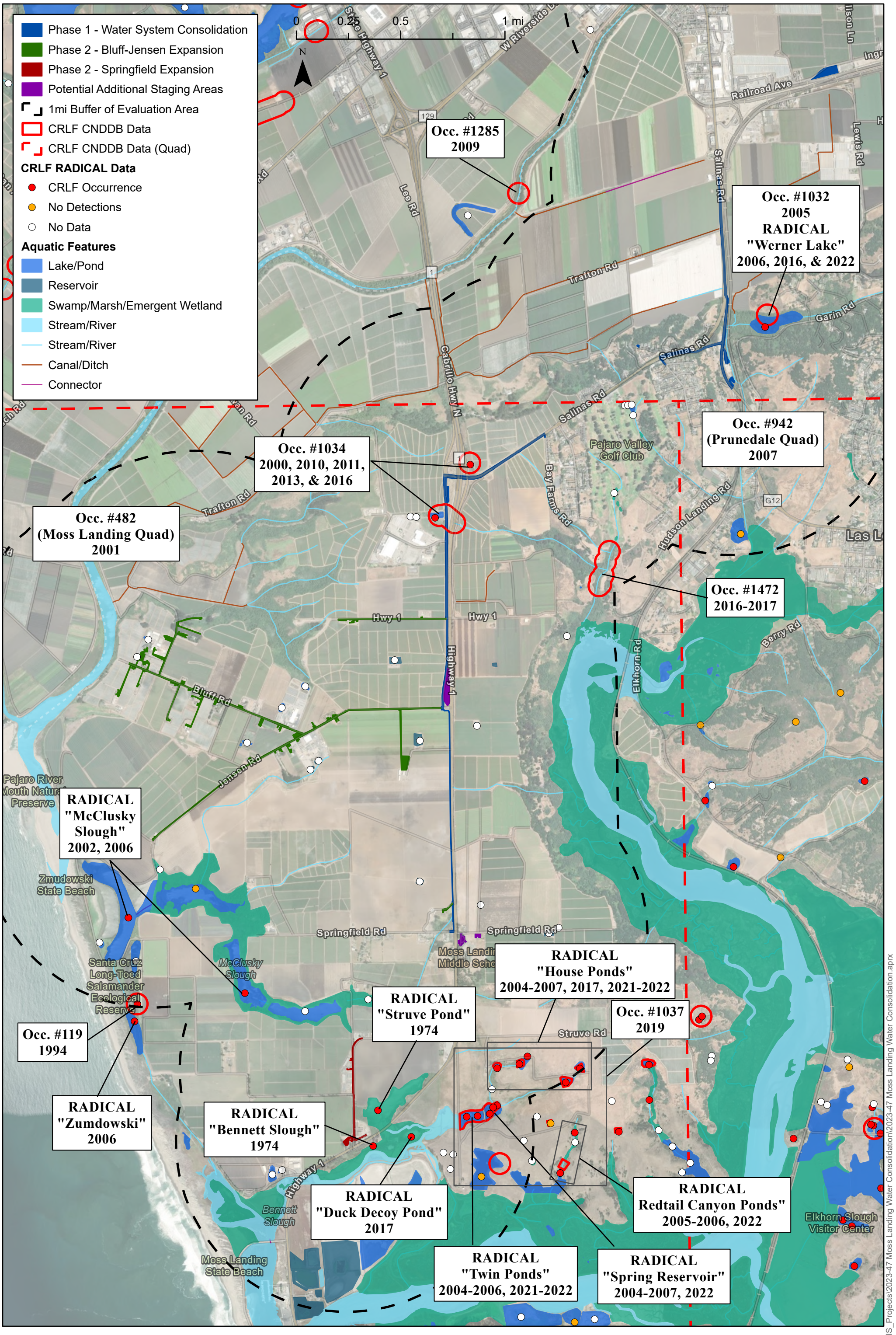
The CNDDB includes 53 occurrences of CRLF within the quadrangles evaluated, including a non-specific occurrence that includes the entire Moss Landing quadrangle (the quadrangle that most of the Project is located within) (**Figure 5**) but notes that the habitat is marsh surrounding the nearby McClusky Slough. Several additional CNDDB occurrences are located within one mile of the Evaluation Area, including occurrences at the adjacent Struve Pond, Bennet Slough, the pond adjacent to Hilltop Road, and Werner Lake. Data provided by the RADICAL team also reports occurrences at these locations (**Figure 5**).

No suitable breeding habitat is present within the Evaluation Area; however the entire Evaluation Area is within one mile of known or potential breeding or non-breeding aquatic habitat, and undeveloped portions of the Evaluation Area may provide suitable upland and dispersal habitat (see **Table 4**), especially within the riparian habitat within and adjacent to the Transmission Main and adjacent to the Springfield Distribution Pipeline, and less-disturbed areas of the oak woodland and ruderal habitat within and surrounding the Transmission Booster Pump Station component. CRLF could also use the emergent wetland habitat adjacent to Struve Road within the Springfield Distribution Pipeline component for non-breeding aquatic habitat when sufficient surface water is present.

*Santa Cruz Long-Toed Salamander*

The Santa Cruz long-toed salamander (*Ambystoma macrodactylum;* "SCLTS") is listed as a federal and state Endangered species and is also a California fully protected species. The SCLTS is a subspecies of long-toed salamander that occurs in a small number of restricted localities in Santa Cruz and Monterey Counties. This subspecies is known to use several different plant community types for upland habitat, including riparian, willow thickets, coast live oak woodlands, dense coastal scrub, coastal chaparral, and Monterey pine forest (USFWS, 1999). Adults use upland areas immediately adjacent to their breeding site, as well as the surrounding areas up to 0.6 km; however, SCLTS has been recorded as far as 1.6 km (1.0 mi) from the nearest breeding site (Ruth and Tollestrup, 1973). For much of the year SCLTS find refuge in cool, moist places, such as small mammal burrows or under decayed wood piles, logs, or thick leaf litter. The upland habitat must also support an abundance of prey. Adult and sub-adult SCLTS eat a variety of invertebrates, including earthworms, slugs, isopods, beetles, and spiders.

Adult SCLTS migrate to breeding sites at night during rain events between November and March, with peak activity between December and February. During migration, the SCLTS may be found under surface objects such as rocks or logs near the breeding site. Ideal breeding locations appear to be shallow, temporary, freshwater ponds that lack fishes and hold water at least through the spring months; however, they may also breed in permanent waterbodies, such as sloughs. Males often arrive at breeding sites before females and may stay longer. Females lay approximately 300 eggs singly on submergent aquatic vegetation in shallow water, approximately five to eight cm (2-3.2 inches) below the surface. Eggs hatch within 15-30 days and the larvae metamorphose between 90 and 145 days after hatching, depending on water temperature and food availability (Howard, 1997). Terrestrial juveniles may spend the entire first summer of life in mammal burrows or under surface objects in the immediate vicinity of the breeding pond.




PSMS Area Regional Consolidation Project
California Red-legged Frog Occurrence Map

Date
9/22/2025

Scale
1 in = 0.4 mi

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Figure
5

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The CNDDB reports 28 occurrences of SCLTS within the seven quadrangles reviewed, the nearest of which are located immediately adjacent to the Springfield Distribution pipeline, within Struve Pond/Bennett Slough; however, SCLTS may be extirpated from this resource (USFWS, 2019) (**Figure 6**). Data provided by the RADICAL team also reports occurrences at this locations. No suitable breeding habitat is present within the Evaluation Area; however, suitable upland habitat for SCLTS is present within the riparian habitat within and adjacent to the Transmission Main component and the riparian habitat adjacent to the Springfield Distribution pipeline and Bluff-Jensen Expansion components. This species is assumed present within these areas.

*Coast Range Newt*

The Coast Range newt (*Taricha torosa*) is a CDFW species of special concern within all portions of their range south of the Salinas River in Monterey County. This species was historically distributed in coastal drainages from the vicinity of Sherwoods (central Mendocino County) in the North Coast Ranges, south to Boulder Creek, in San Diego County. Populations in southern California appear to be highly fragmented, even historically. This species has been depleted by large-scale historical commercial exploitation coupled with the loss and degradation of stream habitats, particularly in Los Angeles, Orange, Riverside, and San Diego Counties. Breeding and egg-laying occur in intermittent streams, rivers, permanent and semi-permanent ponds, lakes and large reservoirs. Eggs are laid in small clusters on the submerged portion of emergent vegetation, on submerged vegetation, and on the underside of rocks off the bottom. In central California, breeding appears to occur in two waves, the first in January or February and the second in March or April (Stebbins, 1951; Miller and Robbins, 1954), although Coast Range newts may enter ponds as early as December. Larvae take approximately three to six months to reach metamorphosis.

Suitable habitat for coast range newt is present within the Transmission Booster Pump Station component. Riparian habitat adjacent to the Transmission Main component near Werner Lake and adjacent to the Springfield Distribution Pipeline component near Struve Pond may also provide suitable habitat. The CNDDB reports one occurrence of this species within the quadrangles evaluated, the nearest of which is located approximately 11 miles southeast of the Evaluation Area.

*Western and Crotch Bumble Bee*

The Crotch bumble bee (*Bombus crotchii;* "CBB") was historically common in the southern two-thirds of California, but now appears to be absent from most of it, especially in the center of its historic range (Xerces Society for Invertebrate Conservation [The Xerces Society] et, al., 2018). The western bumble bee (*B. occidentalis;* "WBB") was formerly common from the Pacific coast to the Colorado Rocky Mountains; however, populations from central California to southern British Columbia, Canada and west of the Sierra-Cascade Ranges have declined sharply since the late 1990s (Koch et. al., 2012; Williams et. al., 2014). On March 16, 2016, USFWS announced that a petition to list CBB and WBB under the ESA presented substantial scientific or commercial information indicating that the petitioned action may be warranted, and identified these species as "Under Review" (USFWS, 2016). Additionally, on June 28, 2019, the CDFW determined that the petition to list CBB and WBB under CESA provided sufficient scientific information to

Transmission Main
Bluff-Jensen Expansion
Springfield Expansion
Potential Additional Staging Areas
1.6 km Buffer of Evaluation Area
SCLTS CNDDB Occurrence

**SCLTS RADICAL Data**

SCLTS Occurrence
SCLTS Not Detected
No Data
0.6 km Buffer of SCLTS Occurrences
1.6 km Buffer of SCLTS Occurrences

**Aquatic Features**

Lake/Pond
Reservoir
Swamp/Marsh/Emergent Wetland
Stream/River
Stream/River
Canal/Ditch
Connector

0 1 1 Miles

N

**CNDDB #3**
**1974, 1977-1978, 1989, & 2001-2002**
**RADICAL**
**"McClusky Slough"**
**1974 & 2002**

**Riparian Habitat within Evaluation Area**

**CNDDB #2**
**1973-1974, 1977-1978, & 1989**
**RADICAL**
**"Struve Pond" & "Bennett Ditch"**
**1974**

**CNDDB #9**
**1994, 2001, & 2002**
**RADICAL**
**"Zumdowski"**
**2022**

# PSMS Area Regional Consolidation Project Santa Cruz Long-Toed Salamander Occurrence Map

Date 9/22/2025

Scale 1 in = 0.5 mi

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Figure 6

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indicate the petitioned action may be warranted, and identified these species as a "Candidate" for listing (CDFW, 2019).

Typical habitat types for CBB and WBB include open grassy areas, urban parks and gardens, chaparral and shrub areas, and mountain meadows where abundant floral resources are present (Williams et. al., 2014; The Xerces Society et, al., 2018). CBB and WBB require plants that bloom and provide adequate nectarand pollen throughout the colony's life cycle, which is from early February to late October or November, respectively. Both species are generalist foragers and has been reported to visit a wide variety of flowering plants; however, both have a very short tongue that is best suited to open flowers with short corollas. The plant families most commonly associated with CBB include Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae. Select food genera for WBB include, but is not limited to, *Ceanothus, Geranium, Grindelia, Lupinus, Monardella, Rubus, Solidago, Melilotus, Cirsium, Trifolium, Centaurea, Chrysothamnus, Penstemon,* and *Eriogonum* (Koch et. al., 2012; Williams et. al., 2014; The Xerces Society et, al., 2018).

Like most other species of bumble bees, CBB and WBB typically nest underground. Most reports of nests are from underground cavities, such as old squirrel or other animal nests, and in open west-southwest slopes bordered by trees. A few nests have also been reported from above-ground locations such as in logs among railroad ties or under buildings (Hatfield et. al,, 2015; The Xerces Society et, al., 2018; Thorpe et. al., 1983). Very little is known about overwintering sites utilized by most bumble bees, including CBB and WBB; however, they generally overwinter in soft, disturbed soil or under leaf litter of other debris (Goulson, 2010; Williams et. al., 2014; The Xerces Society et, al., 2018). One report identified that hibernacula was two inches deep "in a steep west slope of the mound of earth" and a closely related European species, has been reported to hibernate beneath trees (Hatfield et. al., 2015; The Xerces Society et, al., 2018). Additionally, a recent study at the former Fort Ord on the Monterey Peninsula that studied potential overwintering habitat found individuals of two species (*B. melanopygus* and *B. vosnesenskii*) hibernating in the duff below Monterey cypress trees, while none were observed in areas where the groundcover consisted of pine needle duff, grassy meadow, or the invasive iceplant (*Carpobrotus* sp.) (Williams et. al., 2019).

The CNDDB reports 11 occurrences of WBB and two occurrences of CBB within the quadrangles reviewed. The nearest occurrences of CBB are located approximately 2.0 miles northeast of the Evaluation Area at Sunset State Beach from 1994 and approximately 3.5 miles northeast of the Evaluation Area at Watsonville Airport in 1995. WBB were also documented at these locations. The nearest CNDDB occurrence of WBB is a non-specific occurrence from 1959 centered on the City of Watsonville; however, most occurrences of WBB are located in the Watsonville vicinity from the 1990s. No occurrences of CBB or WBB are reported within the quadrangles reviewed in the Bumble Bee Watch database, a community science project facilitated by the Xerces Society to track and conserve North America's bumble bees (Xerces Society, 2025); however, the nearest occurrence of CBB was reported in the City of Santa Cruz near Pleasure Point in 2025 (this occurrence is also documented in the CNDDB). The next nearest CBB occurrence in the Bumble Bee Watch database is located approximately 22 miles northeast of the Evaluation Area at Coyote Lake. All occurrences of WBB in the CNDDB and the Bumble Bee Watch

database from the last 20 years are located 150 miles (241 km) or more north of the Proposed Project, and *A Petition to the State of California Fish and Game Commission to List the Crotch Bumble Bee, Franklins Bumble Bee, Suckley Cuckoo Bumble Bee, and Western Bumble bee as Endangered under the California Endangered Species Act* (Bumble Bee Petition; Xerces Society, et. al., 2018) notes that the currently known range of WBB is "largely confined to high elevation sites and a small handful of records on the northern California coast."

The Evaluation Area is located within the currently known range for CBB, but not WBB. However, the majority of the Evaluation Area is located within the historic range of both species. Suitable habitat for these species is present within all Project components (see **Table 4**) where flowering resources are present, including the ruderal, riparian, and non-native annual grassland habitats. Marginal habitat may also be present in the active agriculture and oak woodland areas.

## IMPACTS AND MITIGATION

The following section describes potential impacts that may result from the Project. For the purposes of this analysis, an impact is significant and requires mitigation if it would result in any of the following:

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 CDFW or USFWS;

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS;

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

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native nursery sites;

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

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.

Criterion "f" was not evaluated for conflicts with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, because the Evaluation Area is not located within any such plan area.

**Impact BIO-1:** 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 CDFW or USFWS.

No special-status plant species were observed during focused surveys in 2024 or 2025 and no special-status plant species are expected to occur within the Service Areas where surveys were not conducted based on the species-specific reasons presented in **Appendix D**. Therefore, the Proposed Project will have no impact on special-status plants.

Several special-status wildlife species are known or have the potential to occur within or adjacent to most of the Evaluation Area (please refer to **Table 4** above) and be impacted by the Proposed Project. In addition, nesting birds have the potential to occur within or adjacent to all Project components except the Bluff-Jensen Tank and Booster Pump Station, and may be impacted by the Proposed Project. Potential impacts to each species are discussed below. In addition to species-specific measures provided below, implementation of the **Mitigation Measures BIO-1 through BIO-6** are applicable to all special-status species to avoid or reduce impacts to a less-than significant level.

***Mitigation Measure BIO-1:*** A qualified biologist will conduct an Employee Education Program for the construction crew prior to any construction activities. The qualified biologist will meet with the construction crew at the onset of construction at the Project site to educate the construction crew on the following: 1) the appropriate access route(s) in and out of the construction area and review Project boundaries; 2) how a biological monitor will examine the area and agree upon a method which will ensure the safety of the monitor during such activities, 3) the identification of special-status species that may be present; 4) the specific mitigation measures that will be incorporated into the construction effort; 5) the general provisions and protections afforded; and 6) the proper procedures if a special-status species is encountered within the Project site to avoid impacts. Additional training events will be performed by a qualified biologist as new personnel join the Project construction team. All construction personnel will participate in a training event by a qualified biologist prior to performing any construction activities on the Project.

***Mitigation Measure BIO-2:*** The following BMPs shall be implemented to avoid and reduce impacts to special-status wildlife species and their habitats:

- To prevent inadvertent entrapment of special-status wildlife during Project construction, all excavated, steep-walled holes (greater than 2:1 slope) or trenches more than two feet deep will be covered at the close of each working day with plywood or similar materials. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. For holes and trenches that are infeasible to cover, the sidewalls may be a sloped greater than 2:1, or ramps may be placed to allow animals to escape.
- Only tightly woven fiber netting or similar material may be used for erosion control at the Project site. Coconut coir matting is an acceptable erosion control material. No plastic mono-filament matting will be used for erosion control, as this material may ensnare wildlife, including special-status amphibians.
- Because dusk and dawn are often the times when special-status wildlife are most actively foraging and dispersing, all construction activities shall cease one half hour before sunset and should not begin prior to one half hour after sunrise in work areas located within 300 feet of riparian, wetland, or pond habitats. In other areas, night work shall only be conducted when necessary, and lighting shall be of the lowest illumination necessary for human safety, shielded, and selectively placed to be directed downward and at the active construction area and away from natural habitat areas.
- All trash that may attract predators shall be properly contained, removed from the construction site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.
- No construction equipment shall be stored or serviced outside of designated staging areas.
- No pets or firearms shall be allowed on the Project site during construction.
- The qualified biologist and a construction monitor shall complete a daily log summarizing activities and environmental compliance throughout the duration of the Project.

- Stationary equipment such as motors, generators, and welders located shall be stored overnight at a designated staging area greater than 100 feet from wetland or riparian habitat when feasible. If it is necessary to store stationary equipment overnight within 100 feet of wetland or riparian habitats, the equipment shall be positioned over drip pans of sufficient volume to prevent any leaks of toxic materials into sensitive habitats.
- Any hazardous or toxic materials deleterious to life that could be washed into adjacent wetland or riparian habitats shall be contained in watertight containers.
- Refueling of equipment shall take place within designated staging areas or at least 100 feet from wetland or riparian habitats and drainages.
- All construction debris and associated materials stored in staging area shall be removed from the work site upon completion of the Project.

***Mitigation Measure BIO-3:*** Prior to construction, temporary construction fencing or flagging shall be placed to keep construction vehicles and personnel from impacting special-status wildlife habitat (e.g., nesting birds or MDFW nests), riparian and wetland habitat, and other special-status species habitat and vegetation (including trees) outside of work limits. A biological monitor shall supervise the installation and removal, and shall monitor at least one per week until construction is complete to ensure the protective exclusionary fencing remains intact.

***Mitigation Measure BIO-4:*** A qualified biologist shall survey the work area and immediately adjacent areas 48 hours before and the morning of the onset of vegetation removal and/or ground-disturbing activities for the presence of special-status wildlife species. If non-listed special-status species are identified within the Project site, a qualified biologist shall relocate the animal to an area that offers suitable habitat at least 100 feet from the work area. If a federal or state-listed species (i.e., CTS, CRLF, or SCLTS) is observed and take authorization has been acquired, relocation measures as defined in applicable permits shall be followed (see Mitigation Measure BIO-12 below). If any life stage of a federal or state-listed species observed and take authorization has not been acquired, vegetation removal, grading and/or construction activities shall not commence until USFWS and/or CDFW are consulted, and appropriate actions are taken to allow Project activities to begin.

***Mitigation Measure BIO-5:*** During vegetation removal and ground disturbing activities a qualified biologist shall survey appropriate areas of the construction site daily before the onset of work activities for the presence of special-status wildlife species. The qualified biologist shall remain on site until all initial ground disturbing activities are completed. If a non-listed special-status wildlife species is identified within the Project site, a qualified biologist shall relocate the animal to an area that offers suitable habitat at least 100 feet from the work area. If any federal or state-listed species (i.e., CTS, CRLF, or SCLTS) is observed and take authorization has been acquired, relocation measures as defined in applicable permits shall be followed (see **Mitigation Measure BIO-12** below). If a federal or state-listed species is found and these individuals are likely to be killed or injured by work activities and take authorization has not been acquired, work shall stop and

USFWS and/or CDFW shall be contacted. Work activities shall not resume until USFWS and/or CDFW is consulted and appropriate actions are taken to allow Project activities to continue.

***Mitigation Measure BIO-6:*** After vegetation removal and initial ground disturbing activities are complete, or earlier if determined appropriate by the qualified biologist, the qualified biologist shall designate a construction monitor (a member of the construction crew) to oversee on-site compliance with all avoidance and minimization measures. The qualified biologist shall ensure that this construction monitor receives sufficient training in the identification of all special-status species with the potential to occur. Thereafter the qualified biologist shall monitor the site at least weekly for the duration of construction to ensure compliance with all protective measures. The construction monitor and the qualified biologist shall be authorized to stop work if the avoidance and/or minimization measures are not being followed. If work is stopped due to the presence of a federal or state-listed species and take authorization has not been acquired, USFWS and/or CDFW shall be notified, and activities will not resume until USFWS and/or CDFW are consulted and appropriate actions are taken to allow Project activities to continue.

*Pallid Bat*

Trees and the eves and awnings of buildings within and adjacent to several components (see **Table 3**) and the SR 1 overpass within the Transmission Main component may provide suitable day and night roost habitat for pallid bats. This species may forage over all open areas of the Evaluation Area. No suitable maternity roost habitat is present. Tree removal and limbing is proposed at the Transmission Booster Pump Station component; however, it is possible that the final Project design may require additional tree removal and/or limbing. This activity could result in disturbance or mortality of individual pallid bats if present at the time of tree removal/limbing. Although the transmission pipeline would be installed in an existing utility crossing within the SR 1 bridge that is covered and direct impacts to pallid bats are unlikely, construction may result in disturbance of pallid bats if roosting in other parts of the bridge. This would be considered a significant impact under CEQA. **Implementation of Mitigation Measures BIO-1, BIO- 2, and BIO-5 through BIO-8 would reduce potential impacts to a less-than-significant level.**

***Mitigation Measure BIO-7:*** To avoid and reduce impacts to pallid bats, the Project proponent will retain a qualified bat specialist or wildlife biologist to conduct a site survey to characterize bat utilization of the SR 1 overpass (techniques utilized to be determined by the biologist) prior to any construction on or immediately adjacent to the overpass. Based on the results of this initial survey, one or more of the following will occur:

- If it is determined that pallid bats are not present at the site, no additional mitigation is required.
- If it is determined that pallid bats are utilizing the site and may be impacted by the Proposed Project, pre-construction surveys will be conducted no more than 30 days prior to construction on or in the vicinity of the overpass. If, according to the bat specialist, no pallid bats or pallid bat signs are observed in the course of the pre-construction surveys, construction may proceed. If pallid bats and/or bat signs are observed during the pre-

construction surveys, the biologist will determine if disturbance would jeopardize the roost (i.e., foraging or night).

- If pallid bats are roosting, construction may proceed after the bats have been safely excluded from the roost. Exclusion techniques shall be determined by the biologist and depend on the roost type; the biologist shall prepare a mitigation plan to be approved by CDFW.

***Mitigation Measure BIO-8:*** To the extent practical any limbing/tree removal operations should occur between September 15 and November 1 to avoid impacts to pallid bat roosts. If tree limbing/tree removal operations must occur outside the period of September 15 through November 1, a survey for bats shall be conducted by a qualified biologist.

Prior to tree trimming/removal, a qualified biologist shall conduct a pre-construction survey for pallid bats as follows:

- The biologist shall determine if bats are utilizing the site for roosting. For any trees/snags that could provide roosting space for cavity-roosting bats, potential bat roost features shall be thoroughly evaluated to determine if bats are present. Visual inspection and/or acoustic surveys shall be utilized as initial techniques.
- If roosting bats are found, the biologist shall develop and implement acceptable passive exclusion methods in coordination with or based on CDFW recommendations. If feasible, exclusion shall take place during the appropriate windows (September 15 and November 1) to avoid harming winter hibernacula. (Authorization from CDFW is required to evict winter hibernacula for bats).
- Although unlikely, if established maternity colonies are found, in coordination with CDFW, a buffer shall be established around the colony to protect pre-volant young from construction disturbances until the young can fly; or implement other measures acceptable to CDFW.
- If a tree is determined not to be an active roost site for roosting bats, it may be immediately limbed or removed as follows: If foliage roosting bats are determined to be present, limbs shall be lowered, inspected for bats by a bat biologist, and chipped immediately or moved to a dump site. Alternately, limbs may be lowered and left on the ground until the following day, when they can be chipped or moved to a dump site. No logs or tree sections shall be dropped on downed limbs or limb piles that have not been in place since the previous day.

*Monterey Dusky-Footed Woodrat*

Suitable habitat for MDFW is present within and adjacent to the Evaluation Area in oak woodland and riparian habitats (see **Table 4**). Nests of this species were not observed within the Evaluation Area during the 2024 or 2025 field surveys; however, this species may move into the site prior to construction. Construction activities, including vegetation removal, grading, and trenching, could result in direct mortality of adults or young, if present. Additionally, MDFW could be alarmed by the presence of heavy equipment and personnel, which could result in nest abandonment, and potential mortality of young. MDFW use their middens year-round; thus, potential adverse effects on this species would not be limited

to the breeding season. **These are considered potentially significant impacts that can be reduced to a less-than-significant level with implementation of Mitigation Measures BIO-1 through BIO-6 and BIO-9**.

> ***Mitigation Measure BIO-9:*** To avoid or minimize impacts to MDFW, the Project applicant shall retain a qualified biologist to conduct pre-construction surveys within areas proposed for construction and a 25-foot buffer where suitable habitat is present and accessible. Surveys for MDFW nests shall be conducted within seven (7) days prior to construction within the Project site. All MDFW nests identified shall be flagged for avoidance. Nests that cannot be avoided shall be manually deconstructed in coordination with a qualified biologist prior to land clearing activities to allow animals to escape harm. To the extent feasible, dismantling shall occur outside of the typical breeding season. If a litter of young is found or suspected, nest material will be replaced, and the nest shall be left alone for two (2) to three (3) weeks before a re-check to verify that young are capable of independent survival before proceeding with nest dismantling.

*Coast Range Newt and Monterey Shrew*

Coast range newt and Monterey shrew have the potential to occur within the riparian habitat within and adjacent to the Evaluation Area (see **Table 4**). The Project would not result in loss of habitat for these species; however, construction activities, including vegetation removal and trenching, could result in mortality or disturbance of these species if present at the time of construction. **These are considered significant impacts that would be reduced to a less-than-significant level with implementation of Mitigation Measures BIO-1 through BIO-6**.

*Raptors, Special-Status Birds and Other Protected Avian Species*

Tree removal and limbing is proposed at the Transmission Booster Pump Station component; however, it is possible that the final Project design may require additional tree removal and/or limbing. Tree removal and limbing may result in direct impacts to nesting raptors and other birds, including the following special-status avian species: tricolored blackbird, loggerhead shrike, and white-tailed kite. In addition, construction activities (e.g., noise, vibrations) may result in indirect impacts to these species if present within or adjacent to the Project site during construction. Impacts may include injury, mortality, and/or nest abandonment. **These are potentially significant impacts that can be minimized to less-than-significant with implementation of Mitigation Measures BIO-1, BIO-2, BIO-5, BIO-6, and BIO-10**.

> ***Mitigation Measure BIO-10:*** To avoid impacts to nesting birds, vegetation removal, demolition activities, and construction shall commence prior to the nesting season (February 1 through September 15). If this is not possible, a pre-construction survey for nesting birds shall be conducted by a qualified biologist within 15 days prior to the commencement of these activities in all accessible areas that may provide suitable nesting habitat within 300 feet of the Project boundary. Surveys for White-tailed kite shall include all accessible areas within 500 feet of the Project boundary. If nesting birds are identified during the pre-construction survey, an appropriate buffer, as identified by the qualified biologist, shall be imposed within which no construction activities or disturbance will take place, in accordance with the Exclusionary Fencing Plan prepared as part of **Mitigation Measure BIO-3**. A qualified biologist shall be on-site during

work re-initiation in the vicinity of the nest offset to ensure that the buffer is adequate and that the nest is not stressed and/or abandoned. No work shall proceed in the vicinity of an active nest until such time as all young are fledged, or until after September 15 (when young are assumed fledged). If construction is halted for more than two weeks during the nesting season, a qualified biologist shall re-survey the Project site prior to reinitiation of construction.

*Western Burrowing Owl*

Surveys conducted in 2024 and 2025 did not identify any active WBO burrows or burrows of sufficient size to support this species. However, WBO has the potential to nest and overwinter within the non-native annual grassland within the potential staging area along Hilltop Road, although the quality of the habitat is low due to the limited size of the area and the presence of highly trafficked roads on either side. Agricultural fields adjacent to the Evaluation Area that are left to fallow may also provide suitable habitat for this species. The Project would not result in loss of potential habitat for this species; however, direct mortality or nest destruction may occur as a result of construction activities such as vegetation removal or trenching. In addition, indirect impacts from construction activities (e.g., noise, vibrations) could result in injury, nest abandonment, and/or mortality of WBO, if nesting or overwintering within or directly adjacent to the Evaluation Area during construction activities. **These are potentially significant impacts that can be minimized to less-than-significant with implementation of Mitigation Measures BIO-1, BIO-2, BIO-5, BIO-6, and BIO-11.**

> ***Mitigation Measure BIO-11:*** To avoid or minimize impacts to active WBO nests, a qualified biologist shall conduct pre-construction surveys in suitable habitat within the construction footprint and within 250 feet of the footprint no more than 14 days prior to the start of construction. If ground disturbing activities are delayed or suspended for more than 14 days after the pre-construction survey, the site shall be resurveyed again within 14 days of the initiation of construction. If no WBO are found, no further mitigation is required. If it is determined that WBO occupy the site, the Applicant shall comply with CESA and contact CDFW to solicit concurrence that the Proposed Project will not result in take or to acquire take authorization in accordance with **Mitigation Measure BIO-12**.

*Federal and State-Listed Amphibians*

Portions of the Project are located within the known dispersal range of several known and potential breeding resources for CTS. No suitable breeding habitat is present within the Evaluation Area; however, immediately adjacent aquatic resources, including Bennett Slough and agricultural ponds, may provide suitable breeding habitat. In addition, potential upland habitat for this species is present within the non-native annual grassland and ruderal habitats where small mammal burrows occur. Marginal upland habitat may also be present within the active agriculture areas.

Installation of the pipelines and the associated access around these components would result in temporary disturbances to CTS upland habitat where non-native annual grassland and ruderal habitats and active agriculture are present. Permanent Project features would be constructed at three locations: the Transmission Booster Pump Station, the Iron and Manganese Treatment Plant at the PWS Well #1

site, and the Bluff-Jensen Tank and Booster Pump Station. The Transmission Booster Pump Station and Iron and Manganese Treatment Plant locations do not contain any suitable habitat for CTS, and the Bluff-Jensen Tank and Booster Pump Station may only provide very marginal upland habitat for CTS given the ongoing active agricultural activities (i.e., row crops). In addition, the existing PWS and SMWS Tank sites do not provide suitable habitat for this species and activities within these sites are limited to upgrades to the existing facilities. As, such, the Proposed Project would result in loss of a small amount of low-quality upland habitat for CTS at the Bluff-Jensen Tank and Booster Pump Station site. Indirect impacts to nearby CTS breeding resources (i.e., Struve Pond adjacent to the Springfield Distribution Pipeline) could occur if construction activities result in erosion and sedimentation to adjacent habitats, or if an accident during construction were to result in the release of hazardous materials into the environment. In addition, construction activities, including vegetation removal and trenching, within the Evaluation Area may result in direct mortality of individuals, if present at the time of construction. Vehicle strikes from construction equipment and vehicles may also occur if CTS disperse through the Evaluation Area. **This would be considered take of a listed species under ESA and CESA, and a significant impact under CEQA. Take of this species can be avoided and/or impacts reduced to a less-than-significant level with implementation of Mitigation Measures BIO-1 through BIO-6, and BIO-12.**

The Project is located within the known dispersal range of CRLF. Aquatic breeding habitat for CRLF is not present within the Evaluation Area; however, upland and dispersal habitat for this species are present within undeveloped portions of the Evaluation Area, with the exception of the ruderal habitat within the Iron and Manganese Treatment Plant and PWS Tank Rehabilitation components. Potential non-breeding aquatic habitat (i.e., emergent wetland) is also present immediately adjacent to the Springfield Distribution Pipeline component. The Project would not result in direct impacts to CRLF aquatic breeding or non-breeding habitat or a loss of upland habitat, and the Project has been designed to avoid impacts to riparian habitat, including using HDD under the riparian habitat within the Project site. Temporary impacts to CRLF upland and dispersal habitat may occur as a result of vegetation removal and trenching, and indirect impacts could occur if construction activities result in erosion and sedimentation to adjacent habitats, or if an accident during construction were to result in the release of hazardous materials into the environment. The only new above-ground permanent components of the Project that may permanently impact CRLF upland and dispersal habitat are the Transmission Booster Pump Station and Bluff-Jensen Tank and Booster Pump Station components; however, these components are currently actively disturbed associated with the existing SMWS wells facility and active row cropping, respectively, and therefore the habitat is degraded. Construction activities, including vegetation removal and trenching, within the Evaluation Area may result in direct mortality of individuals, if present at the time of construction. Vehicle strikes from construction equipment and vehicles may also occur if CRLF disperse through the Project site. **This would be considered take of a listed species under ESA, and a significant impact under CEQA. Take of this species can be avoided and/or impacts reduced to a less-than-significant level with implementation of Mitigation Measures BIO-1 through BIO-6, and BIO-12.**

The Springfield Expansion Area and a portion of the Bluff-Jensen Expansion Area are located within the known dispersal range of SCLTS. Riparian habitat located immediately adjacent to the Evaluation Area within these areas may provide habitat for this species. The Project has been designed to avoid all impacts

to SCLTS habitat, including using HDD under the riparian habitat within the Project site. However, direct impacts could occur if work were conducted outside of Project limits within the riparian habitats, and indirect impacts could occur if construction activities result in erosion and sedimentation to adjacent habitats or if an accident during construction were to result in the release of hazardous materials into the environment. **These would be considered take of a listed species under ESA and CESA, and a significant impact under CEQA. Implementation of Mitigation Measures BIO-1 through BIO-6 would ensure avoidance of take of SCLTS that may be present outside of Project work areas during construction and would reduce impacts to a less-than-significant level under CEQA.** Acquisition of regulatory permits from the USFWS and CDFW for SCLTS is not required as potential impacts would be avoided with implementation of the mitigation.

> ***Mitigation Measure BIO-12:*** Prior to construction, the Project Applicant shall comply with the ESA and CESA and contact the agencies to solicit concurrence that the Project would not result in take or to acquire take authorization. Take authorization may require the Applicant to retain a qualified biologist to prepare a mitigation plan, which would include, but is not limited to, identifying avoidance and minimization measures, a mitigation strategy, and funding assurances. The Project Applicant would be required to implement the approved plan and any additional permit requirements.

*Crotch and Western Bumble Bee*

The special-status CBB and WBB have the potential to forage and nest within the Evaluation Area (see **Table 4** for specific Project components). Vegetation removal activities have the potential to directly impact these species through mortality of individuals, destruction or disturbance of nests, and/or disturbance of habitat if present within the Project site. **Mortality of CBB and/or WBB would be considered take of a listed species under CESA and would require approval from CDFW. These are potentially significant impacts that can be minimized to less-than-significant with implementation of Mitigation Measures BIO-1 through BIO-6, BIO-13, and (as applicable) BIO-12.**

> ***Mitigation Measure BIO-13:*** A qualified biologist shall conduct surveys for CBB and WBB individuals and active colonies in accordance with CDFW's *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species* or the most current CDFW survey guidelines. The surveys shall be conducted within areas of appropriate habitat (foraging, nesting, and overwintering) that will be impacted by the Proposed Project and, where feasible, an approximate 50-foot buffer of those areas. Surveys shall occur during the CBB and WBB life cycle when floral resources are present (ideally during peak bloom), on sunny days with wind speeds below eight miles per hour, and at least two hours after sunrise and three hours before sunset. The surveys shall be conducted no more than one year (i.e., active season) prior to initiation of construction. If no CBB individuals or active colonies (or suspected CBB or WBB that cannot be identified) are observed during the surveys, then no additional mitigation is necessary. If CBB or WBB individuals or active colonies (or suspected CBB or WBB that cannot be identified) are observed, the Applicant shall comply with CESA and contact CDFW to solicit concurrence that the

Proposed Project will not result in take or to acquire take authorization in accordance with **Mitigation Measure BIO-12**.

**Impact BIO-2** Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS, or on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling hydrological interruption, or other means.

*Riparian and Wetland Habitat*

Approximately 0.1 acre of riparian habitat is present within the Evaluation Area within the Transmission Main easement near the Springfield Road and SR 1 intersection. In addition, riparian and emergent wetland habitats are present immediately adjacent to the Evaluation Area, including associated with the adjacent Struve Pond, Werner Lake, the pond along Hilltop Road, and a roadside ditch along Struve Road. The floristic alliances occurring within riparian habitat are identified as sensitive on CDFW's *California Natural Communities List* (CDFW, 2025a). In addition, riparian areas are subject to the jurisdiction of CDFW under Section 1602 of the Fish and Game Code, meet the definition of ESHA under the CCA, and some areas may meet the definition of a state wetland. Wetland areas adjacent to the Evaluation Area also meet the definition of ESHA and some areas may meet the definition of a state wetland. A wetland delineation was not conducted as it was determined that these adjacent areas could be completely avoided and protected during construction.

County Code permits development on parcels containing or within 100 feet of sensitive habitats (including riparian habitat) only if the development would not have a significant adverse impact on the habitat's long-term maintenance. The Monterey County CIP identifies that all development, including vegetation removal, excavation, grading, filling, and the construction of roads and structures, is prohibited within ESHA, and development within 100 feet of ESHA that adversely impacts the habitat's long-term maintenance is not permitted. Further, the CIP requires protection of riparian habitat by establishing setback requirements of 150 feet on each side of the bank of perennial streams and 50 feet on each side of the bank or intermittent streams, or the extent of the riparian vegetation, whichever is greater, and protection of coastal wetlands by establishing setbacks of 100 feet from the landward edge of vegetation associated with the wetland. However, the LUP and LCP allow for exceptions to development in and adjacent to ESHA (such as activities for maintenance of existing structures and roads, activities associated with fish and wildlife habitat improvements, watershed restoration, or installation of utility lines) and to setback requirements if it is determined through a biological survey that impacts of such activities would not harm the habitat's long-term maintenance or cause significant degradation of the habitat.

The Project would not result in loss of riparian habitat, as HDD will be used where riparian habitat is present within the Project area; however, direct impacts to riparian and wetland habitats could occur if work were to occur outside of Project boundaries within adjacent habitat. Additionally, indirect impacts to riparian and wetland could occur if construction activities result in erosion and sedimentation to adjacent habitats, or if an accident during construction were to result in the release of hazardous materials

into the environment. **These are potentially significant impacts that can be minimized to less-than-significant with implementation of Mitigation Measures BIO-1 through BIO-3.** Acquisition of regulatory permits from the ACOE and RWQCB would not be required; however, CDFW would require a Streambed Alteration Agreement for the HDD under the riparian area, and a CDP is required for development within the coastal zone.

Portions of the Evaluation Area are within 100 feet of riparian and wetland habitat and within 50 feet of an intermittent drainage. However, the Proposed Project has been designed to construct new permanent Project features outside of these buffer zones and align pipelines within existing roads where feasible, with the exception of the easement between Jensen Road and Springfield Road which is predominantly active agriculture and denuded agricultural roads. Development within the Project site would not alter the water source for the riparian habitat (i.e., groundwater or river flooding). In addition, the Project is subject to standard stormwater requirements and therefore would not result in contamination of the sensitive habitats or drainages. Additionally, implementation of **Mitigation Measures BIO-1 through BIO-3 and BIO-6** and would ensure that riparian and wetland habitats are protected during construction. Therefore, the proposed development would not have a significant adverse impact of the long-term maintenance or cause significant degradation of the riparian or wetland habitats within or adjacent to the Proposed Project.

*Oak Woodland Habitat*

Although not specifically identified as ESHA, the LUP identifies that oak woodland on 25% slopes should be left in its native state and development within oak woodland on 25% slopes or less shall be cited to minimize disruption of vegetation and habitat loss. Approximately 0.1 acre of oak woodland is present within the Evaluation Area within the Transmission Booster Pump Station component; however, this habitat is isolated and very disturbed as a result of the existing operations. The Project would remove two coast live oak trees within this area; however, because the Project components have been sited as close to and within existing disturbed areas, the Project will not result in oak woodland habitat loss and **this is a less-than-significant impact**.

**Impact BIO-3:** 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 nursery sites.

The Proposed Project has been designed to construct permanent Project features within existing facilities or already disturbed areas and align pipelines within existing roads and disturbed shoulders. In addition, the Proposed Project has been designed to avoid direct impacts to riparian habitats and other adjacent potential wildlife habitat areas. Therefore, the Proposed Project would not interfere with the movement of any native resident or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native nursery sites. This impact is less than significant, and no mitigation is required.

**Impact BIO-4:** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The Proposed Project may result in the removal of coast live oak trees, which are protected under Monterey County Code. **This is a potentially significant impact that can be reduced to a less than significant level with implementation of the Mitigation Measure BIO-14.**

> ***Mitigation Measure BIO-14:*** Prior to the issuance of a grading permit, the District shall obtain a tree removal permit from the County if impacts to coast live oak trees are proposed. If the Project is to remove three or more trees, a Forest Management Plan will be prepared and submitted to the County for review and approval. The District shall implement any additional mitigation measures required by the tree removal permit.

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# APPENDIX A

30% PROJECT PLANS

(attached separately due to file size)

# APPENDIX B

CALIFORNIA NATURAL DIVERSITY DATABASE REPORT

# Selected Elements by Scientific Name

## California Department of Fish and Wildlife

## California Natural Diversity Database

**Query Criteria:** Quad IS (Marina (3612167) OR Salinas (3612166) OR Prunedale (3612176) OR Watsonville East (3612186) OR Watsonville West (3612187) OR Soquel (3612188) OR Moss Landing (3612177))<br /> AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects OR Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes OR Fungi)

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| ***Accipiter cooperii*** Cooper's hawk | ABNKC12040 | None | None | G5 | S4 | WL |
| ***Actinemys marmorata*** northwestern pond turtle | ARAAD02031 | Proposed Threatened | None | G2 | SNR | SSC |
| ***Actinemys pallida*** southwestern pond turtle | ARAAD02032 | Proposed Threatened | None | G2G3 | SNR | SSC |
| ***Agelaius tricolor*** tricolored blackbird | ABPBXB0020 | None | Threatened | G1G2 | S2 | SSC |
| ***Agrostis lacuna-vernalis*** vernal pool bent grass | PMPOA041N0 | None | None | G1 | S1 | 1B.1 |
| ***Allium hickmanii*** Hickman's onion | PMLIL02140 | None | None | G2 | S2 | 1B.2 |
| ***Ambystoma californiense pop. 1*** California tiger salamander - central California DPS | AAAAA01181 | Threatened | Threatened | G2G3T3 | S3 | WL |
| ***Ambystoma macrodactylum croceum*** Santa Cruz long-toed salamander | AAAAA01082 | Endangered | Endangered | G5T1T2 | S2 | FP |
| ***Aneides niger*** Santa Cruz black salamander | AAAAD01070 | None | None | G3 | S3 | SSC |
| ***Anniella pulchra*** Northern California legless lizard | ARACC01020 | None | None | G3 | S2S3 | SSC |
| ***Antrozous pallidus*** pallid bat | AMACC10010 | None | None | G4 | S3 | SSC |
| ***Arctostaphylos andersonii*** Anderson's manzanita | PDERI04030 | None | None | G2 | S2 | 1B.2 |
| ***Arctostaphylos hookeri ssp. hookeri*** Hooker's manzanita | PDERI040J1 | None | None | G3T2 | S2 | 1B.2 |
| ***Arctostaphylos montereyensis*** Toro manzanita | PDERI040R0 | None | None | G2? | S2? | 1B.2 |
| ***Arctostaphylos pajaroensis*** Pajaro manzanita | PDERI04100 | None | None | G1 | S1 | 1B.1 |
| ***Arctostaphylos pumila*** sandmat manzanita | PDERI04180 | None | None | G1 | S1 | 1B.2 |
| ***Asio flammeus*** short-eared owl | ABNSB13040 | None | None | G5 | S2 | SSC |

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| ***Astragalus tener var. tener*** alkali milk-vetch | PDFAB0F8R1 | None | None | G2T1 | S1 | 1B.2 |
| ***Athene cunicularia*** burrowing owl | ABNSB10010 | None | Candidate Endangered | G4 | S2 | SSC |
| ***Bombus caliginosus*** obscure bumble bee | IIHYM24380 | None | None | G2G3 | S1S2 | |
| ***Bombus crotchii*** Crotch's bumble bee | IIHYM24480 | None | Candidate Endangered | G2 | S2 | |
| ***Bombus occidentalis*** western bumble bee | IIHYM24252 | None | Candidate Endangered | G3 | S1 | |
| ***Bombus pensylvanicus*** American bumble bee | IIHYM24260 | None | None | G3G4 | S2 | |
| ***Buteo regalis*** ferruginous hawk | ABNKC19120 | None | None | G4 | S3S4 | WL |
| ***Castilleja ambigua var. insalutata*** pink Johnny-nip | PDSCR0D403 | None | None | G5T2 | S2 | 1B.1 |
| ***Centromadia parryi ssp. congdonii*** Congdon's tarplant | PDAST4R0P1 | None | None | G3T2 | S2 | 1B.1 |
| ***Charadrius nivosus nivosus*** western snowy plover | ABNNB03031 | Threatened | None | G3T3 | S3 | SSC |
| ***Chorizanthe minutiflora*** Fort Ord spineflower | PDPGN04100 | None | None | G1 | S1 | 1B.2 |
| ***Chorizanthe pungens var. pungens*** Monterey spineflower | PDPGN040M2 | Threatened | None | G2T2 | S2 | 1B.2 |
| ***Chorizanthe robusta var. robusta*** robust spineflower | PDPGN040Q2 | Endangered | None | G2T1 | S1 | 1B.1 |
| ***Cicindela ohlone*** Ohlone tiger beetle | IICOL026L0 | Endangered | None | G1 | S1 | |
| ***Coelus globosus*** globose dune beetle | IICOL4A010 | None | None | G1G2 | S1S2 | |
| ***Cordylanthus rigidus ssp. littoralis*** seaside bird's-beak | PDSCR0J0P2 | None | Endangered | G5T2 | S2 | 1B.1 |
| ***Corynorhinus townsendii*** Townsend's big-eared bat | AMACC08010 | None | None | G4 | S2 | SSC |
| ***Coturnicops noveboracensis*** yellow rail | ABNME01010 | None | None | G4 | S2 | SSC |
| ***Danaus plexippus plexippus pop. 1*** monarch - California overwintering population | IILEPP2012 | Proposed Threatened | None | G4T1T2Q | S2 | |
| ***Dicamptodon ensatus*** California giant salamander | AAAAH01020 | None | None | G2G3 | S2S3 | SSC |
| ***Dipodomys heermanni goldmani*** Salinas kangaroo rat | AMAFD03065 | None | None | G4T2T3 | S2S3 | |

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| ***Dipodomys venustus venustus*** Santa Cruz kangaroo rat | AMAFD03042 | None | None | G4T1 | S1 | |
| ***Elanus leucurus*** white-tailed kite | ABNKC06010 | None | None | G5 | S3S4 | FP |
| ***Eremophila alpestris actia*** California horned lark | ABPAT02011 | None | None | G5T4Q | S4 | WL |
| ***Ericameria fasciculata*** Eastwood's goldenbush | PDAST3L080 | None | None | G2 | S2 | 1B.1 |
| ***Eryngium montereyense*** Fort Ord button-celery | PDAPI0Z150 | None | None | G1 | S1 | 1B.1 |
| ***Erysimum ammophilum*** sand-loving wallflower | PDBRA16010 | None | None | G2 | S2 | 1B.2 |
| ***Erysimum menziesii*** Menzies' wallflower | PDBRA160R0 | Endangered | Endangered | G1 | S1 | 1B.1 |
| ***Eucyclogobius newberryi*** tidewater goby | AFCQN04010 | Endangered | None | G3 | S3 | SSC |
| ***Euphilotes enoptes smithi*** Smith's blue butterfly | IILEPG2026 | Endangered | None | G5T2 | S2 | |
| ***Falco peregrinus anatum*** American peregrine falcon | ABNKD06071 | Delisted | Delisted | G4T4 | S3S4 | |
| ***Fritillaria liliacea*** fragrant fritillary | PMLIL0V0C0 | None | None | G2 | S2 | 1B.2 |
| ***Gilia tenuiflora ssp. arenaria*** Monterey gilia | PDPLM041P2 | Endangered | Threatened | G3G4T2 | S2 | 1B.2 |
| ***Gonidea angulata*** western ridged mussel | IMBIV19010 | None | None | G3 | S2 | |
| ***Holocarpha macradenia*** Santa Cruz tarplant | PDAST4X020 | Threatened | Endangered | G1 | S1 | 1B.1 |
| ***Horkelia cuneata var. sericea*** Kellogg's horkelia | PDROS0W043 | None | None | G4T1? | S1? | 1B.1 |
| ***Horkelia marinensis*** Point Reyes horkelia | PDROS0W0B0 | None | None | G2 | S2 | 1B.2 |
| ***Lasthenia californica ssp. macrantha*** perennial goldfields | PDAST5L0C5 | None | None | G3T2 | S2 | 1B.2 |
| ***Lasthenia conjugens*** Contra Costa goldfields | PDAST5L040 | Endangered | None | G1 | S1 | 1B.1 |
| ***Lavinia exilicauda harengus*** Monterey hitch | AFCJB19013 | None | None | G4T3 | S3 | SSC |
| ***Legenere limosa*** legenere | PDCAM0C010 | None | None | G2 | S2 | 1B.1 |
| ***Linderiella occidentalis*** California linderiella | ICBRA06010 | None | None | G2G3 | S2S3 | |

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| ***Microseris paludosa*** marsh microseris | PDAST6E0D0 | None | None | G2 | S2 | 1B.2 |
| ***Microtus californicus halophilus*** Monterey vole | AMAFF11036 | None | None | G5T1 | S2 | |
| ***Monardella sinuata ssp. nigrescens*** northern curly-leaved monardella | PDLAM18162 | None | None | G3T2 | S2 | 1B.2 |
| ***Monolopia gracilens*** woodland woollythreads | PDAST6G010 | None | None | G3 | S3 | 1B.2 |
| ***Neotoma macrotis luciana*** Monterey dusky-footed woodrat | AMAFF08083 | None | None | G5T3 | S3 | SSC |
| ***Oncorhynchus mykiss irideus pop. 8*** steelhead - central California coast DPS | AFCHA0209G | Threatened | None | G5T3Q | S3 | SSC |
| ***Oncorhynchus mykiss irideus pop. 9*** steelhead - south-central California coast DPS | AFCHA0209H | Threatened | None | G5T2Q | S2 | SSC |
| ***Pedicularis dudleyi*** Dudley's lousewort | PDSCR1K180 | None | Rare | G2 | S2 | 1B.2 |
| ***Pentachaeta bellidiflora*** white-rayed pentachaeta | PDAST6X030 | Endangered | Endangered | G1 | S1 | 1B.1 |
| ***Phrynosoma blainvillii*** coast horned lizard | ARACF12100 | None | None | G4 | S4 | SSC |
| ***Piperia yadonii*** Yadon's rein orchid | PMORC1X070 | Endangered | None | G1 | S1 | 1B.1 |
| ***Plagiobothrys chorisianus var. chorisianus*** Choris' popcornflower | PDBOR0V061 | None | None | G3T1Q | S1 | 1B.2 |
| ***Plagiobothrys diffusus*** San Francisco popcornflower | PDBOR0V080 | None | Endangered | G1Q | S1 | 1B.1 |
| ***Rallus obsoletus obsoletus*** California Ridgway's rail | ABNME05011 | Endangered | Endangered | G3T1 | S2 | FP |
| ***Rana boylii pop. 4*** foothill yellow-legged frog - central coast DPS | AAABH01054 | Threatened | Endangered | G3T2 | S2 | |
| ***Rana draytonii*** California red-legged frog | AAABH01022 | Threatened | None | G2G3 | S2S3 | SSC |
| ***Reithrodontomys megalotis distichlis*** Salinas harvest mouse | AMAFF02032 | None | None | G5T1 | S2 | |
| ***Riparia riparia*** bank swallow | ABPAU08010 | None | Threatened | G5 | S3 | |
| ***Rosa pinetorum*** pine rose | PDROS1J0W0 | None | None | G1Q | S1 | 1B.2 |
| ***Scaphinotus behrensi*** Behrens' snail-eating beetle | IICOL4L070 | None | None | G2G4 | S2S4 | |
| ***Sorex ornatus salarius*** Monterey shrew | AMABA01105 | None | None | G5T1T2 | S1S2 | SSC |

| Species | Element Code | Federal Status | State Status | Global Rank | State Rank | Rare Plant Rank/CDFW SSC or FP |
|---|---|---|---|---|---|---|
| ***Sorex vagrans paludivagus*** Monterey vagrant shrew | AMABA01072 | None | None | G5T1 | S2 | |
| ***Spea hammondii*** western spadefoot | AAABF02020 | Proposed Threatened | None | G2G3 | S3S4 | SSC |
| ***Spirinchus thaleichthys*** longfin smelt | AFCHB03010 | None | Threatened | G5 | S1 | |
| ***Taricha torosa*** Coast Range newt | AAAAF02032 | None | None | G4 | S4 | SSC |
| ***Taxidea taxus*** American badger | AMAJF04010 | None | None | G5 | S3 | SSC |
| ***Thaleichthys pacificus*** eulachon | AFCHB04010 | Threatened | None | G4 | S1 | SSC |
| ***Trifolium buckwestiorum*** Santa Cruz clover | PDFAB402W0 | None | None | G2 | S2 | 1B.1 |
| ***Trifolium hydrophilum*** saline clover | PDFAB400R5 | None | None | G2 | S2 | 1B.2 |
| ***Trimerotropis infantilis*** Zayante band-winged grasshopper | IIORT36030 | Endangered | None | G1 | S1 | |
| ***Tryonia imitator*** mimic tryonia (=California brackishwater snail) | IMGASJ7040 | None | None | G2 | S2 | |

**Record Count: 90**

# APPENDIX C

INFORMATION FOR PLANNING AND CONSULTING (IPaC)
RESOURCE LIST

Not included due to accessibility issues. Please contact lead agency for a copy of the IPaC List.

# APPENDIX D

SPECIAL-STATUS SPECIES TABLE

# Special-Status Species Table

*Marina, Moss Landing, Prunedale, Salinas, Soquel, Watsonville East, and Watsonville West Quadrangles*

| | CDFW/CNPS) | | Transmission Main | SMWS Well Destruction & Transmission Booster Pump Station | Potential Additional Staging Areas | Bluff-Jensen Distribution & Service Areas | Bluff-Jensen Tank & Booster Pump Station | Springfield Distribution & Service Areas |
|---|---|---|---|---|---|---|---|---|
| **Mammals** | | | | | | | | |
| *Antrozous pallidus*<br>Pallid bat | -- / CSC / -- | Occurs in a wide variety of habitats including grasslands, shrublands, arid desert areas, oak savanna, coastal forested areas, & coniferous forests of the mountain regions of California. Most common in open, dry habitats with rocky areas for roosting. Day roosts include caves, crevices, mines, and occasionally hollow trees and buildings. Seems to prefer rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Similar structures are used for night roosting and will also use more open sites such as eaves, awnings, and open areas under bridges for feeding roosts. | **Moderate**<br>Foraging habitat is present. Trees and the SR 1 overpass may provide suitable day or night roost habitat. The nearest CNDDB occurrence is from 1949 and is located approx. 10.5 mi east of the SR 1/ Salinas Rd. overpass. | **Moderate**<br>Foraging habitat is present. Trees may provide day or night roost habitat; however, no suitable maternity roost habitat is present. The nearest CNDDB occurrence is from 1949 and is located approx. 9 mi east of component. | **Moderate Adjacent**<br>Foraging habitat is present. Trees adjacent to the potential staging area at Moss Landing Middle School may provide day or night roost habitat; however, no suitable maternity roost habitat is present. The nearest CNDDB occurrence is from 1949 and is located approx. 11 mi east of this area. | **Moderate**<br>Foraging habitat is present. Trees may provide day or night roost habitat; however, no suitable maternity roost habitat is present. The nearest CNDDB occurrence is from 1949 and is located approx. 11 mi east of component. | **Unlikely**<br>Foraging habitat is present; however, no suitable night, day, or maternity roost habitat is present. | **Moderate**<br>Foraging habitat is present. Trees may provide day or night roost habitat; however, no suitable maternity roost habitat is present. The nearest CNDDB occurrence is from 1949 and is located approx. 12 mi northeast of component. |
| *Corynorhinus townsendii*<br>Townsend's big-eared bat | -- / CSC / -- | Primarily rural settings from inland deserts to coastal redwoods, oak woodland of the inner Coast Ranges and Sierra foothills, and low to mid-elevation mixed coniferous-deciduous forests. Day roosts are in limestone caves, lava tubes, and mines, but can roost in buildings that offer suitable conditions. Night roosts are in more open settings and include bridges, rock crevices, and trees. | **Low**<br>Foraging habitat is present and trees within and adjacent to component may provide marginal night roost habitat; however, no suitable day or maternity roost habitat is present. | **Low**<br>Foraging habitat is present and trees within and adjacent to component may provide marginal night roost habitat; however, no suitable day or maternity roost habitat is present. | **Low**<br>Foraging habitat is present and trees adjacent to the potential staging area at Moss Landing Middle School may provide marginal night roost habitat; however, no suitable day or maternity roost habitat is present. | **Low**<br>Foraging habitat is present and trees within and adjacent to component may provide marginal night roost habitat; however, no suitable day or maternity roost habitat is present. | **Unlikely**<br>Foraging habitat is present; however, no suitable night, day, or maternity roost habitat is present. | **Low**<br>Foraging habitat is present and trees within and adjacent to component may provide marginal night roost habitat; however, no suitable day or maternity roost habitat is present. |
| *Neotoma macrotis luciana*<br>Monterey dusky-footed woodrat | -- / CSC / -- | Forest and oak woodland habitats of moderate canopy with moderate to dense understory. Also occurs in chaparral habitats. | **Moderate**<br>Suitable habitat is present in the riparian areas within and adjacent to component. The nearest CNDDB occurrence is approx. 19 mi south of component; however, this species is known to occur throughout Monterey County. | **Moderate**<br>Suitable habitat is present within and adjacent to component. The nearest CNDDB occurrence is approx. 22 mi south of component; however, this species is known to occur throughout Monterey County. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Moderate Adjacent**<br>Suitable habitat is present adjacent to component along Trafton Rd. The nearest CNDDB occurrence is approx. 20 mi south of component; however, this species is known to occur throughout Monterey County. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Moderate Adjacent**<br>Riparian habitat adjacent to component provides suitable habitat. The nearest CNDDB occurrence is approx. 18 mi south of component; however, this species is known to occur throughout Monterey County. |
| *Puma concolor*<br>Mountain Lion (Southern California/Central Coast ESU) | -- / SC / -- | Typically found in pine forest, riparian and oak woodlands, streams, chaparral, and grasslands; however, also use desert habitats. Require large areas of relatively undisturbed habitat with adequate connectivity to allow for dispersal and gene flow. Generally avoids areas with human disturbance. | **Unlikely**<br>No suitable habitat present. | **Unlikely**<br>No suitable habitat present. | **Unlikely**<br>No suitable habitat present. | **Unlikely**<br>No suitable habitat present. | **Unlikely**<br>No suitable habitat present. | **Unlikely**<br>No suitable habitat present. |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *Sorex ornatus salarius*<br>Monterey shrew | -- / CSC / -- | Mostly moist or riparian woodland habitats, and within chaparral, grassland, and emergent wetland habitats where there is a thick duff or downed logs. | **Moderate**<br>Suitable habitat is present in the riparian areas within and adjacent to component. The nearest CNDDB occurrence is approx. 1.5 mi south of the riparian habitat within this component. | **Low**<br>Marginal habitat is present within component; however, component may be outside of the current distribution range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Moderate Adjacent**<br>Suitable habitat is present within the adjacent riparian habitat. The nearest CNDDB occurrence is approx. 3.5 mi south of this area. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Moderate Adjacent**<br>Suitable habitat is present within the adjacent riparian and emergent wetland habitats. The nearest CNDDB occurrence is approx. 0.3 mi south of these areas. |
| *Taxidea taxus*<br>American badger | -- / CSC / -- | Dry, open grasslands, fields, pastures savannas, and mountain meadows near timberline are preferred. The principal requirements seem to be sufficient food, friable soils, and relatively open, uncultivated grounds. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| **Birds** | | | | | | | | |
| *Agelaius tricolor*<br>Tricolored blackbird (nesting colony) | -- / ST / -- | Nest in colonies in dense riparian vegetation, along rivers, lagoons, lakes, and ponds. Forages over grassland or aquatic habitats. | **Moderate Adjacent**<br>Suitable habitat may be present in the riparian areas adjacent to component. Riparian habitat within component has only a low potential to provide marginal habitat. The nearest CNDDB occurrence is approx. 300 feet east of component at Werner Lake. Several eBird occurrences are reported in the vicinity including at McClusky Slough. | **Low**<br>Marginal habitat is present adjacent to component. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Moderate Adjacent**<br>Suitable nesting habitat may be present within the adjacent riparian habitat. The nearest CNDDB occurrences is approx. 2 mi northeast of the potential habitat, at Elkhorn Slough. Several eBird occurrences are reported in the vicinity including at McClusky Slough. |
| *Asio flammeus*<br>Short-eared owl (nesting) | -- / CSC / -- | Open areas with few trees, such as annual and perennial grasslands, prairies, meadows, dunes, irrigated lands, and saline and freshwater emergent marshes. Dense vegetation is required for roosting and nesting cover. Treeless areas containing elevated sites for perching, such as fence posts or small mounds, are also needed. Some individuals breed in northern California. | **Low**<br>Suitable foraging habitat may be present adjacent at the pond along Hilltop Rd. and within the non-native grassland adjacent to the pond; however, this species is unlikely to breed within the vicinity. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Low**<br>Marginal foraging habitat may be present within the non-native annual grassland habitat within the potential staging area along Hilltop Rd.; however, this species is unlikely to breed within the vicinity. | **Low Adjacent**<br>Suitable nesting habitat may be present at the adjacent Pajaro River near the end of Bluff Rd.; however, this species is unlikely to breed within the vicinity. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |

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| | | | | | | | | **Springfield Distribution & Service Areas** |
| *Athene cunicularia*<br>Burrowing owl (burrow sites & some wintering sites) | -- / SC / -- | Year-round resident of open, dry grassland and desert habitats, and in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. Frequent open grasslands and shrublands with perches and burrows. Use rodent burrows for roosting and nesting cover. Pipes, culverts, and nest boxes may also be used. | **Moderate Adjacent**<br>Marginal nesting habitat is present within non-native annual grassland habitat within and adjacent to component. Adjacent agricultural areas may provide marginal habitat. The nearest CNDDB occurrence is approx. 0.8 mi southeast of this habitat. Several eBird occurrences are reported in the vicinity. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Moderate**<br>Suitable nesting habitat is present within non-native grassland habitat within and adjacent to the potential staging area along Hilltop Rd. The nearest CNDDB occurrence is approx. 2 mi south of this area. Several eBird occurrences are reported in the vicinity. | **Low Adjacent**<br>Adjacent agricultural areas may provide marginal habitat. The nearest CNDDB occurrence is approx. 1.8 mi southeast of this area. Several eBird occurrences are reported in the vicinity. | **Low**<br>Only marginal habitat is present within component due to active agriculture. | **Low Adjacent**<br>Adjacent agricultural areas may provide marginal habitat. The nearest CNDDB occurrence is approx. 1 mi east of this area. Several eBird occurrences are reported in the vicinity. |
| *Brachyramphus marmoratus*<br>Marbled Murrelet | FT / SE / -- | Occur year-round in marine subtidal and pelagic habitats from the Oregon border to Point Sal. Partial to coastlines with stands of mature redwood and Douglas-fir. Requires dense mature forests of redwood and/or Douglas-fir for breeding and nesting. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Charadrius nivosus nivosus*<br>Western snowy plover (nesting) | FT / CSC / -- | Sandy beaches on marine and estuarine shores, also salt pond levees and the shores of large alkali lakes. Requires sandy, gravelly or friable soil substrate for nesting. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>The CNDDB reports a non-specific occurrence of this species that overlaps within component. However, the occurrence is associated with Moss Landing and Zumdowski State Beaches and component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Coccyzus americanus*<br>Yellow-billed cuckoo | FT / SE / -- | Inhabits extensive deciduous riparian thickets or forests with dense, low-level or understory foliage, slow-moving watercourses, backwaters, or seeps. Willow almost always a dominant component of the vegetation. | **Unlikely**<br>Riparian habitat within and adjacent to component may provide only very marginal habitat for this species. The CNDDB does not document any occurrences of this species within the quads evaluated and the Project is likely outside of the current range for this species. | **Unlikely**<br>Riparian habitat adjacent to component may provide only very marginal habitat for this species. The CNDDB does not document any occurrences of this species within the quads evaluated and the Project is likely outside of the current range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Unlikely**<br>Riparian habitat adjacent to component may provide only very marginal habitat for this species. The CNDDB does not document any occurrences of this species within the quads evaluated and the Project is likely outside of the current range for this species. |
| *Coturnicops noveboracensis*<br>Yellow rail | -- / CSC / -- | Wet meadows and coastal tidal marshes. Occurs year round in California, but in two primary seasonal roles: as a very local breeder in the northeastern interior and as a winter visitor (early Oct to mid-Apr) on the coast and in the Suisun Marsh region | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Low Adjacent**<br>Suitable nesting and foraging habitat is present within the adjacent Struve Pond; however, this species is not known to breed in the vicinity. |

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| | | | | | | | | **Springfield Distribution & Service Areas** |
| *Elanus leucurus*<br>White-tailed kite (nesting) | -- / CFP / -- | Open groves, river valleys, marshes, and grasslands. Prefer such an area with low roosts (fences etc.). Nest in shrubs and trees adjacent to grasslands. | **High**<br>Suitable nesting and foraging habitat is present. The nearest CNDDB occurrence is located approx. 2.8 mi southeast of component. Several eBird occurrences are reported within the vicinity, including multiple sightings along Hilltop Rd. and SR 1. | **Moderate**<br>Suitable nesting and foraging habitat is present. The nearest CNDDB occurrence is located approx. 5 mi south of component. Several eBird occurrences are reported within the vicinity. | **Moderate Adjacent**<br>Only foraging habitat is present within component; however, suitable nesting habitat is present immediately adjacent to the potential staging area at the Moss Landing Middle School. The nearest CNDDB occurrence is located approx. 3 mi southeast of component. Several eBird occurrences are reported within the vicinity, including multiple sightings along Hilltop Rd. and SR 1. | **Moderate**<br>Suitable nesting and foraging habitat is present. The nearest CNDDB occurrence is located approx. 3.7 mi southeast of component. Several eBird occurrences are reported within the vicinity, including along Bluff Rd. | **Low**<br>Only foraging habitat is present within component. | **Moderate**<br>Suitable nesting and foraging habitat is present. The nearest CNDDB occurrence is located approx. 2.8 mi east of component. Several eBird occurrences are reported within the vicinity, including along Struve Rd. |
| *Empidonax trailii extimus*<br>Southwestern willow flycatcher | FE / SE / -- | Breeds in riparian habitat in areas ranging in elevation from sea level to over 2,600 m. Builds nest in trees in densely vegetated areas. This species establishes nesting territories and builds, and forages in mosaics of relatively dense and expansive areas of trees and shrubs, near or adjacent to surface water or underlain by saturated soils. Not typically found nesting in areas without willows (*Salix sp.*), tamarisk (*Tamarix ramosissima)*, or both. | **Low**<br>Suitable habitat is present within the riparian habitat; however, component is outside of the currently known range for this species. No CNDDB occurrences of this species are reported in the quadrangles reviewed or in the vicinity in Ebird. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. and is outside of the currently known range. No CNDDB occurrences of this species are reported in the quadrangles reviewed or in the vicinity in Ebird. | **Low Adjacent**<br>Suitable habitat is present within the adjacent riparian habitat; however, component is outside of the currently known range for this species. No occurrences of this species are reported in the CNDDB quadrangles reviewed or in the vicinity in Ebird. | **Not Present**<br>Component lacks the specialized habitat features to support this species. and is outside of the currently known range. No CNDDB occurrences of this species are reported in the quadrangles reviewed or in the vicinity in Ebird. | **Low Adjacent**<br>Suitable habitat is present within the adjacent riparian habitat; however, component is outside of the currently known range for this species. No occurrences of this species are reported in the CNDDB quadrangles reviewed or in the vicinity in Ebird. |
| *Gymnogyps californianus*<br>California condor | FE / SE / -- | Roosting sites in isolated rocky cliffs, rugged chaparral, and pine covered mountains 2000-6000 feet above sea level. Foraging area removed from nesting/roosting site (includes rangeland and coastal area - up to 19 mile commute one way). Nest sites in cliffs, crevices, potholes. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |

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| | | | | | | | | **Springfield Distribution & Service Areas** |
| *Lanius ludovicianus*<br>Loggerhead shrike | -- / CSC / -- | Resident in dry open grasslands and agricultural areas. Scattered shrubs or trees, particularly thick or thorny species, serve as nesting substrates and hunting perches. Fences, utility wires, grasses, and forbs also may be used as perches. | **Moderate**<br>Suitable nesting and foraging habitat is present. No CNDDB occurrences of this species are reported in the quadrangles reviewed; however, several eBird occurrences are reported in the vicinity. | **Moderate**<br>Suitable nesting and foraging habitat is present. No CNDDB occurrences of this species are reported in the quadrangles reviewed; however, several eBird occurrences are reported in the vicinity. | **Moderate Adjacent**<br>Only foraging habitat is present within the potential staging area on Hilltop Rd. Suitable nesting habitat is present immediately adjacent to the potential staging area at Moss Landing Middle School. No CNDDB occurrences of this species are reported in the quadrangles reviewed; however, several eBird occurrences are reported in the vicinity, including several approx. 0.5 mi. south of Moss Landing Middle School. | **Moderate**<br>Suitable nesting and foraging habitat is present. No CNDDB occurrences of this species are reported in the quadrangles reviewed; however, several eBird occurrences are reported in the vicinity, including along Bluff Rd. | **Low**<br>Only marginal foraging habitat is present within component. | **Moderate**<br>Suitable nesting and foraging habitat is present. No CNDDB occurrences of this species are reported in the quadrangles reviewed; however, several eBird occurrences are reported in the vicinity. |
| *Rallus obsoletus obsoletus*<br>California Ridgeway's rail | FE / SE&CFP /-- | Salt and brackish marshes. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Riparia riparia*<br>Bank swallow (nesting) | -- / ST / -- | Nest colonially in sand banks. Found near water; fields, marshes, streams, and lakes. | **Not Present**<br>Component lacks the specialized nesting habitat features to support this species. | **Not Present**<br>Component lacks the specialized nesting habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized nesting habitat features to support this species. |
| *Sterna antillarum browni*<br>California least tern | FE / SE / -- | Prefers undisturbed nest sites on open, sandy/gravelly shores near shallow-water feeding areas in estuaries. Sea beaches, bays, large rivers, bars. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Vireo bellii pusillus*<br>Least Bell's vireo | FE / SE / -- | Riparian areas and drainages. Breed in willow riparian forest supporting a dense, shrubby understory. Oak woodland with a willow riparian understory is also used in some areas, and individuals sometimes enter adjacent chaparral, coastal sage scrub, or desert scrub habitats to forage. | **Low Adjacent**<br>Adjacent riparian areas may provide suitable habitat; however, this species is a rare occurrence in the vicinity. The CNDDB does not report any occurrences of this species in the quadrangles reviewed; however, two eBird occurrences of this species were reported at the Pajaro River in 1996. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Low Adjacent**<br>Adjacent riparian areas may provide suitable habitat; however, this species is a rare occurrence in the vicinity. The CNDDB does not report any occurrences of this species in the quadrangles reviewed; however, two eBird occurrences of this species were reported at the Pajaro River in 1996. |

| | CDFW/CNPS) | | Transmission Main | SMWS Well Destruction & Transmission Booster | Potential Additional Staging Areas | Bluff-Jensen Distribution & Service Areas | Bluff-Jensen Tank & Booster Pump Station | Springfield Distribution & Service Areas |
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| **Reptiles and Amphibians** | | | | | | | | |
| *Actinemys marmorata*<br>Northwestern pond turtle | FC / CSC / -- | Associated with permanent or nearly permanent water in a wide variety of habitats including streams, lakes, ponds, irrigation ditches, etc. Require basking sites such as partially submerged logs, rocks, mats of vegetation, or open banks. The range for this species is from Washington south to approx. Castroville, continuing into the foothills of the Salinas Valley from Salinas to Soledad, and south into the central valley and eastern foothills to Lancaster, California. | **Low Adjacent**<br>The pond along Hilltop Road adjacent to component may provide marginal habitat. | **Not Present**<br>Component lacks the specialized habitat features to support this species**.** | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Actinemys pallida*<br>Southwestern pond turtle | FC / CSC / -- | Associated with permanent or nearly permanent water in a wide variety of habitats including streams, lakes, ponds, irrigation ditches, etc. Require basking sites such as partially submerged logs, rocks, mats of vegetation, or open banks. The range for this species is along the coast from Castroville to Baja California in Mexico, including the Salinas Valley to Soledad, the foothills west of the Central Valley to Lancaster, and the southern California mountain ranges. | **Not Present**<br>Component is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Component is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Component is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Component is outside of the currently known range for this species.. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Component is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Component is outside of the currently known range for this species. |
| *Ambystoma californiense*<br>California tiger salamander | FT / ST / -- | Annual grassland and grassy understory of valley-foothill hardwood habitats in central and northern California. Need underground refuges and vernal pools or other seasonal water sources. | **Assumed Present**<br>Marginal upland habitat is present. Component is within 380 m of an occurrence near an assumed breeding pond located just south of Jensen Rd. Two other occurrences are known from the CNDDB & RADICAL data within 2.2km. | **Not Present**<br>Component lacks the specialized habitat features to support this species**.** Component is not within 2.2 km of known or assumed breeding ponds. Component is within 380 m of Werner Lake; however, RADICAL data indicates that surveys conducted at this resource have not detected this species. | **Assumed Present**<br>Marginal upland habitat is present. The potential staging area along Hilltop Rd. is within 310 m of an occurrence near an assumed breeding pond. The potential staging area at the Moss Landing Middle School is approx. 1.2 km from a known occurrence at the Fox Reservoir. Several other agricultural ponds that could provide breeding habitat are present within the immediate vicinity with no known occurrence data. | **Assumed Present**<br>Marginal upland habitat is present. Nearly the entire component (except the end of Bluff Rd) is within 2.2 km of a known occurrence near an assumed breeding pond. A portion of this component is within 100 m of this pond. Several other agricultural ponds that could provide breeding habitat are present within the immediate vicinity with no known occurrence data. | **Assumed Present**<br>Marginal upland habitat is present. Component is within 1000 m of an occurrence near an assumed breeding pond. Several other agricultural ponds that could provide breeding habitat are present within the immediate vicinity with no known occurrence data. | **Assumed Present**<br>Marginal upland habitat is present. No suitable breeding habitat is present. The entire component is within 2.2 km of known or assumed breeding ponds. Portions of this component are within 380 m of Struve Pond. Several other agricultural ponds that could provide breeding habitat are present within the immediate vicinity with no known occurrence data. |

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| | | | | | | | | **Springfield Distribution & Service Areas** |
| *Ambystoma macrodactylum croceum*<br>Santa Cruz long-toed salamander | FE / SE&CFP / -- | Preferred habitats include ponderosa pine, montane hardwood-conifer, mixed conifer, montane riparian, red fir and wet meadows. Occurs in a small number of localities in Santa Cruz and Monterey Counties. Adults spend the majority of the time in underground burrows and beneath objects. Larvae prefer shallow water with clumps of vegetation. | **Assumed Present**<br>No breeding habitat present. Riparian habitat within component may provide suitable upland habitat. A portion of this component is within 1.6 km of known occurrences within McClusky Slough and Struve Pond. | **Unlikely**<br>The oak woodland could provide marginal habitat for this species; however, component is outside of the known dispersal range for this species. Component is within 0.6 km of Werner Lake; however, RADICAL data indicates that surveys conducted at this resource have not detected this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and the staging area along Hilltop Rd. is outside of the dispersal range from known occurrences. | **Assumed Present Adjacent**<br>The majority of this component is within 1.6 km of a breeding occurrence at McClusky Slough and one Service Area is within 0.6 km of this occurrence. Suitable habitat may be present within riparian habitat adjacent to component. | **Unlikely**<br>Component is within 1.6 km of a breeding occurrence at McClusky Slough; however, no suitable habitat is present within or immediately adjacent to component. | **Assumed Present Adjacent**<br>This species has been documented to breed at the immediately adjacent Struve Pond/Bennett Slough; however, this population may be extirpated (USFWS, 2019). This entire component is within 0.6 km of this occurrences. Riparian habitat adjacent to this component may provide suitable upland habitat. |
| *Aneides niger*<br>Santa Cruz black salamander | -- / CSC / -- | Occurs in the fog belt of the outer Coastal Range in mesic forests. This species occurs in moist streamside microhabitats. This species is often found in shallow standing water or seeps. Small geographical range consisting of woodland habitat within the Santa Cruz Mountains in western Santa Clara, northern Santa Cruz, and southernmost San Mateo Counties. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. |
| *Anniella pulchra*<br>Northern California legless lizard | -- / CSC / -- | Requires moist, warm habitats with loose soil for burrowing and prostrate plant cover, often forages in leaf litter at plant bases; may be found on beaches, sandy washes, and in woodland, chaparral, and riparian areas. | **Unlikely**<br>No suitable habitat present. | **Unlikely**<br>No suitable habitat present. | **Unlikely**<br>No suitable habitat present. | **Unlikely**<br>No suitable habitat present. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Unlikely**<br>No suitable habitat present. |
| *Dicamptodon ensatus*<br>California giant salamander | -- / CSC / -- | Occurs within the Coast Range from just north of the southern border of Mendocino County to southern Santa Cruz County. Found in wet coastal forests in or around clear, cold permanent and semi-permanent streams and seepages. Typically within elevations ranging from sea level to approx. 3000 feet. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. |
| *Phrynosoma blainvillii*<br>Coast horned lizard | -- / CSC / -- | Associated with open patches of sandy soils in washes, chaparral, scrub, and grasslands. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Rana boylii*<br>Foothill yellow-legged frog<br>(central coast DPS) | FT / SE / -- | Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats, including hardwood, pine, and riparian forests, scrub, chaparral, and wet meadows. Rarely encountered far from permanent water. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |

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| *Rana draytonii*<br>California red-legged frog | FT / CSC / -- | Lowlands and foothills in or near permanent or late-season sources of deep water with dense, shrubby, or emergent riparian vegetation. During late summer or fall adults are known to utilize a variety of upland habitats with leaf litter or mammal burrows. | **Assumed Present**<br>No breeding habitat present. Potential upland habitat is present in undeveloped areas surrounding the pond adjacent to Hilltop Rd. and in the adjacent riparian habitat near Werner Lake. Several occurrences are known from the CNDDB & RADICAL data within the vicinity, including an occurrence at the Hilltop Rd. pond and at Werner Lake near Salinas Rd. | **Moderate**<br>No breeding or upland habitat is present; however, suitable dispersal habitat is present. Several occurrences are known from the CNDDB & RADICAL data within the vicinity, the nearest of which is located approx. 0.2-mi northeast of component at Werner Lake. | **Moderate**<br>No breeding or upland habitat is present; however, suitable dispersal habitat is present. Several occurrences are known from the CNDDB & RADICAL data within the vicinity, the nearest of which is located at the Hilltop Rd. Pond approx. 0.9-mi north of the staging area along Hilltop Rd. | **Moderate**<br>No breeding or upland habitat present. Suitable dispersal habitat is present throughout component. Several occurrences are known from the CNDDB & RADICAL data within the vicinity, including an occurrence at the Hilltop Rd. pond, located approx. 0.6 mi north of component. | **Moderate**<br>No breeding or upland habitat present. Suitable dispersal habitat is present within component. Several occurrences are known from the CNDDB & RADICAL data within the vicinity, including an occurrence at the Hilltop Rd. pond, located approx. 1.5 mi northeast of component. | **High**<br>This species is known to breed at the immediately adjacent Struve Pond. Emergent wetland and riparian habitat adjacent to this component may provide suitable upland habitat. Suitable dispersal habitat is present throughout component. |
| *Spea hammondii*<br>Western spadefoot | FC / CSC / -- | Grasslands with shallow temporary pools are optimal habitats for the western spadefoot. Occur primarily in grassland habitats, but can be found in valley and foothill woodlands. Vernal pools are essential for breeding and egg laying. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Taricha torosa*<br>Coast range newt | -- / CSC / -- | Occurs mainly in valley-foothill hardwood, valley-foothill hardwood-conifer, coastal scrub, and mixed chaparral but is known to occur in grasslands and mixed conifer types. Seek cover under rocks and logs, in mammal burrows, rock fissures, or man-made structures such as wells. Breed in intermittent ponds, streams, lakes, and reservoirs. | **Moderate Adjacent**<br>Adjacent riparian areas may provide suitable habitat. The nearest CNDDB occurrence is approximately 11 mi southeast of component. | **Moderate**<br>Suitable habitat is present. The nearest CNDDB occurrence is approximately 11 mi southeast of component. | **Unlikely**<br>No suitable habitat present. | **Unlikely**<br>No suitable habitat present. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Moderate Adjacent**<br>Adjacent riparian areas may provide suitable habitat. The nearest CNDDB occurrence is approximately 11.5 mi east of component. |
| **Fish** | | | | | | | | |
| *Eucyclogobius newberryi*<br>Tidewater goby | FE / CSC / -- | Brackish water habitats, found in shallow lagoons and lower stream reaches. Tidewater gobies appear to be naturally absent (now and historically) from three large stretches of coastline where lagoons or estuaries are absent and steep topography or swift currents may prevent tidewater gobies from dispersing between adjacent localities. The southernmost large, natural gap occurs between the Salinas River in Monterey County and Arroyo del Oso in San Luis Obispo County. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |

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| | | | | | | | | **Springfield Distribution & Service Areas** |
| *Lavinia exilicauda harengus*<br>Monterey hitch<br>(Pajaro/Salinas hitch) | -- / CSC / -- | Found only within the Pajaro and Salinas River systems. Can occupy a wide variety of habitats, however, they are most abundant in lowland areas with large pools or small reservoirs that mimic such conditions. May be found in brackish water conditions within the Salinas River lagoon during the early summer months when the sandbar forms at the mouth of the river. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Oncorhynchus mykiss irideus*<br>Steelhead<br>(central California coast DPS) | FT / -- / -- | Coastal perennial and near perennial streams, with suitable spawning and rearing habitat and no major barriers. Found from the Russian River to and including Aptos Creek, and all drainages of San Francisco and San Pablo Bays eastward to Chipps Island at the confluence of the Sacramento and San Joaquin Rivers. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Oncorhynchus mykiss irideus*<br>Steelhead<br>(south/central California coast DPS) | FT / -- / -- | Cold headwaters, creeks, and small to large rivers and lakes; anadromous in coastal streams. Found in streams and rivers from the Pajaro River in Santa Cruz County to (but not including) the Santa Maria River in San Luis Obispo County. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Spirinchus thaleichthys*<br>Longfin smelt | -- / ST / -- | Euryhaline, nektonic & anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefers salinities of 15-30 PPT, but can be found in completely freshwater to almost pure seawater. Found in coastal estuaries north of the Russian River (primarily in Humbolt Bay) and south of Pillar Point in Half Moon Bay. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Thaleichthys pacificus*<br>Eulachon | FT / -- / -- | Small, anadromous fish from the eastern Pacific Ocean, commonly called smelt. Typically spend 3-5 years in saltwater before returning to freshwater to spawn from late-winter through mid-spring. Occur in nearshore ocean waters and to 1,000 feet (300 m) in depth, except for the brief spawning runs into their natal streams. Spawning grounds are typically in the lower reaches of larger snowmelt-fed rivers with water temperatures ranging from 39-50°F. Spawning occurs over sand or coarse gravel substrates. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |

| | CDFW/CNPS) | | Transmission Main | SMWS Well Destruction & Transmission Booster | Potential Additional Staging Areas | Bluff-Jensen Distribution & Service Areas | Bluff-Jensen Tank & Booster Pump Station | Springfield Distribution & Service Areas |
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| **Invertebrates** | | | | | | | | |
| *Bombus crotchii*<br>Crotch bumble bee | -- / SC / -- | Occurs in open grassland and scrub at relatively warm and dry sites. Requires plants that bloom and provide adequate nectar and pollen throughout the colony's life cycle, which is from early February to late October. Generally nests underground, often in abandoned mammal burrows. Within California this species is known to occur in the Mediterranean, Pacific Coast, Western Desert, as well as Great Valley and adjacent foothill regions. | **Moderate**<br>Suitable habitat may be present in undeveloped areas; however, surveys would be necessary to determine if sufficient flowering resources or nesting habitat are present. | **Moderate**<br>Suitable habitat may be present in undeveloped areas; however, surveys would be necessary to determine if sufficient flowering resources or nesting habitat are present. | **Moderate**<br>Suitable habitat may be present at the potential staging area along Hilltop Rd.; however, surveys would be necessary to determine if sufficient flowering resources or nesting habitat are present. | **Moderate**<br>Suitable habitat may be present in undeveloped areas; however, surveys would be necessary to determine if sufficient flowering resources or nesting habitat are present. | **Moderate**<br>Component has the potential to provide flowering resources; however, these resources are highly variable based on agricultural uses | **Moderate**<br>Suitable habitat may be present in undeveloped areas; however, surveys would be necessary to determine if sufficient flowering resources or nesting habitat are present. |
| *Bombus occidentalis*<br>Western bumble bee | -- / SC / -- | Occurs in open grassy areas, urban parks, urban gardens, chaparral, and meadows. Requires plants that bloom and provide adequate nectar and pollen throughout the colony's life cycle, which is from early February to late November. Typically nests underground, often in abandoned mammal burrows. Populations are currently largely restricted to high elevation sites in the Sierra Nevada; however, the historic range includes the northern California coast. | **Moderate**<br>Suitable habitat may be present in undeveloped areas; however, surveys would be necessary to determine if sufficient flowering resources or nesting habitat are present. | **Moderate**<br>Suitable habitat may be present in undeveloped areas; however, surveys would be necessary to determine if sufficient flowering resources or nesting habitat are present. | **Moderate**<br>Suitable habitat may be present at the potential staging area along Hilltop Rd.; however, surveys would be necessary to determine if sufficient flowering resources or nesting habitat are present. | **Moderate**<br>Suitable habitat may be present in undeveloped areas; however, surveys would be necessary to determine if sufficient flowering resources or nesting habitat are present. | **Moderate**<br>Component has the potential to provide flowering resources; however, these resources are highly variable based on agricultural uses. | **Moderate**<br>Suitable habitat may be present in undeveloped areas; however, surveys would be necessary to determine if sufficient flowering resources or nesting habitat are present. |
| *Branchinecta lynchi*<br>Vernal pool fairy shrimp | FT / -- / -- | Require ephemeral pools with no flow. Associated with vernal pool/grasslands from near Red Bluff (Shasta County), through the central valley, and into the South Coast Mountains Region.<br>Require ephemeral pools with no flow. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Cicindela ohlone*<br>Ohlone tiger beetle | FE / -- / -- | Coastal terraces with remnant stands of open native grassland with clay or sandy soils. Hunt, breed, and dig small vertical burrows along sunny single-track trails and dirt roads (maintained by cattle, hikers, etc.) in coast terrace meadows that still support native grasses. Current range from the City of Scotts Valley to the eastern edge of the City of Santa Cruz. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. |

| | CDFW/CNPS) | | Potential Occurrence within Components | | | | | |
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| | | | **Transmission Main** | **SMWS Well Destruction & Transmission Booster** | **Staging Areas** | **Bluff-Jensen Distribution & Service Areas** | **Bluff-Jensen Tank & Booster Pump Station** | **Springfield Distribution & Service Areas** |
| *Danaus plexippus*<br>Monarch butterfly | FC / -- / -- | Overwinters in coastal California, typically from mid-October to late February. Colonial roosts are generally found in Eucalyptus, pine, and acacia trees, often in canyons and drainages. Overwintering groves generally have more stable temperatures (i.e., less variation between day and night temperatures), less direct sunlight, less wind, and more moisture in the air than groves not used by monarch butterflies. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. The CNDDB reports a 1993/ 1994 occurrence within the Monterey pine trees at the Moss Landing Middle School; however, this species was not identified in follow-up surveys in 1995, 1998, and 2000 and the density of the Monterey pine trees likely no longer provide suitable wintering habitat for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Euphilotes enoptes smithi*<br>Smith's blue butterfly | FE / -- / -- | Most commonly associated with coastal dunes and coastal sage scrub plant communities in Monterey and Santa Cruz Counties. Plant hosts are *Eriogonum latifolium* and *E. parvifolium*. | **Not Present**<br>Component lacks the specialized habitat features and host plant to support this species. | **Not Present**<br>Component lacks the specialized habitat features and host plant to support this species. | **Not Present**<br>Component lacks the specialized habitat features and host plant to support this species. | **Not Present**<br>Component lacks the specialized habitat features and host plant to support this species. | **Not Present**<br>Component lacks the specialized habitat features and host plant to support this species. | **Not Present**<br>Component lacks the specialized habitat features and host plant to support this species. |
| *Trimerotropis infantilis*<br>Zayante band-winged grasshopper | FE / -- / -- | Open sandy areas with sparse, low annual and perennial herbs on high ridges with sparse ponderosa pine. Often occurs with Ben Lomond wallflower. Restricted to sand parkland habitat found on ridges and hills within the Zayante sandhills habitat in Santa Cruz County. Flight season extends from late May through August. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. |
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| *Agrostis lacuna-vernalis*<br>Vernal pool bent grass | -- / -- / 1B | Vernal pool mima mounds at elevations of 115-145 m. Annual herb in the Poaceae family; blooms April-May. Known only from Butterfly Valley and Machine Gun Flats of Ft. Ord National Monument. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2024. |
| *Allium hickmanii*<br>Hickman's onion | -- / -- / 1B | Closed-cone coniferous forests, maritime chaparral, coastal prairie, coastal scrub, and valley and foothill grasslands at elevations of 5-200 m. Bulbiferous perennial herb in the Alliaceae family; blooms March-May. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Arctostaphylos andersonii*<br>Anderson's manzanita | -- / -- / 1B | Openings and edges of broadleaved upland forest, chaparral, and north coast coniferous forest at elevations of 60-760 m. Evergreen shrub in the Ericaceae family; blooms November-May. | **Not Present**<br>Component lacks the specialized habitat features to support this species. This species was not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed in areas surveyed in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |

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| | | | | | | | | **Springfield Distribution & Service Areas** |
| *Arctostaphylos hookeri* ssp. *hookeri* Hooker's manzanita | -- / -- / 1B | Closed-cone coniferous forest, chaparral, cismontane woodland, and coastal scrub on sandy soils at elevations of 85-536 m. Evergreen shrub in the Ericaceae family; blooms January-June. | **Not Present** Marginal habitat is present within the oak woodland; however, component is below the known elevation range. Not observed in areas surveyed in 2024. | **Not Present** Marginal habitat is present within the oak woodland; however, component is below the known elevation range. Not observed in areas surveyed in 2025. | **Not Present** Component lacks the specialized habitat features to support this species and is below the known elevation range. Not observed during surveys in 2025. | **Not Present** Component lacks the specialized habitat features to support this species and is below the known elevation range. Not observed during surveys in 2024. | **Not Present** Component is under active cultivation and is below the known elevation range. | **Not Present** Component lacks the specialized habitat features to support this species and is below the known elevation range Not observed during surveys in 2024. |
| *Arctostaphylos montereyensis* Toro manzanita | -- / -- / 1B | Maritime chaparral, cismontane woodland, and coastal scrub on sandy soils at elevations of 30-730 m. Evergreen shrub in the Ericaceae family; blooms February-March. | **Not Present** Marginal habitat is present within the oak woodland; however, this species was not observed during surveys in 2024. | **Not Present** Marginal habitat is present within the oak woodland; however, this species was not observed during surveys in 2025. | **Not Present** Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present** Component lacks the specialized habitat features to support this species Not observed during surveys in 2024. | **Not Present** Component is under active cultivation. | **Not Present** Component lacks the specialized habitat features to support this species Not observed during surveys in 2024. |
| *Arctostaphylos pajaroensis* Pajaro manzanita | -- / -- / 1B | Chaparral on sandy soils at elevations of 30-760 m. Evergreen shrub in the Ericaceae family; blooms December-March. | **Not Present** Marginal habitat is present within the oak woodland; however, this species was not observed during surveys in 2024. | **Not Present** Marginal habitat is present within the oak woodland; however, this species was not observed during surveys in 2025. | **Not Present** Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present** Component lacks the specialized habitat features to support this species Not observed during surveys in 2024. | **Not Present** Component is under active cultivation. | **Not Present** Component lacks the specialized habitat features to support this species Not observed during surveys in 2024. |
| *Arctostaphylos pumila* Sandmat manzanita | -- / -- / 1B | Openings of closed-cone coniferous forests, maritime chaparral, cismontane woodland, coastal dunes, and coastal scrub on sandy soils at elevations of 3-205 m. Evergreen shrub in the Ericaceae family; blooms February-May. | **Not Present** Marginal habitat is present within the oak woodland; however, this species was not observed during surveys in 2024. | **Not Present** Marginal habitat is present within the oak woodland; however, this species was not observed during surveys in 2025. | **Not Present** Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present** Component lacks the specialized habitat features to support this species. This species was not observed during surveys in 2024. | **Not Present** Component is under active cultivation. | **Not Present** Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Arenaria paludicola* Marsh sandwort | FE / SE / 1B | Known from only two natural occurrences in Black Lake Canyon and at Oso Flaco Lake. Sandy openings of freshwater of brackish marshes and swamps at elevations of 3-170 m. Stoloniferous perennial herb in the Caryophyllaceae family; blooms May-August. | **Not Present** Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2024. | **Not Present** Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2025. | **Not Present** Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present** Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2024. | **Not Present** Component is under active cultivation and is outside of the currently known range for this species. | **Not Present** Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2024. |
| *Astragalus tener* var. *tener* Alkali milk-vetch | -- / -- / 1B | Playas, valley and foothill grassland on adobe clay, and vernal pools on alkaline soils at elevations of 1-60 m. Annual herb in the Fabaceae family; blooms March-June. | **Not Present** No suitable habitat. This species was not observed during surveys in 2024. | **Not Present** Component lacks the specialized habitat features to support this species. This species was not observed during surveys in 2025. | **Unlikely** No suitable habitat. | **Not Present** Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present** Component is under active cultivation. | **Not Present** Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Castilleja ambigua var. insalutata* Pink Johnny-nip | -- / -- / 1B | Coastal prairie and coastal scrub at elevations of 0-100 m. Annual herb in the Orobanchaceae family; blooms May-August. | **Not Present** Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present** Component lacks the specialized habitat features to support this species. | **Not Present** Component lacks the specialized habitat features to support this species. | **Not Present** Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present** Component is under active cultivation. | **Not Present** Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |

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| | | | | | | | | **Springfield Distribution & Service Areas** |
| *Centromadia parryi* ssp. *congdonii*<br>Congdon's tarplant | -- / -- / 1B | Valley and foothill grassland on heavy clay, saline, or alkaline soils at elevations of 0-230 m. Annual herb in the Asteraceae family; blooms May-November. | **Not Present**<br>Marginal habitat is present; however, this species was not observed during surveys in 2024. | **Not Present**<br>Marginal habitat is present; however, this species was not observed during surveys in 2025. | **Not Present**<br>This species was not observed within the potential staging area along Hilltop Rd. during survey in 2025. No suitable habitat is present within the potential staging area at the Moss Landing Middle School. | **Low**<br>This species was not observed during surveys in 2024. Marginal habitat may be present within Service Areas on private property that were not accessible; however, the majority of these areas are developed or very disturbed and the potential for this species to occur is low. | **Not Present**<br>Component is under active cultivation. | **Low**<br>This species was not observed during surveys in 2024. Marginal habitat may be present within Service Areas on private property that were not accessible; however, the majority of these areas are developed or very disturbed and the potential for this species to occur is low. |
| *Chorizanthe minutiflora*<br>Fort Ord spineflower | -- / -- / 1B | Sandy openings of maritime chaparral and coastal scrub at elevations of 55-150 m. Only known occurrences on Fort Ord National Monument. Annual herb in the Polygonaceae family; blooms April-July. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2024. |
| *Chorizanthe pungens* var. *pungens*<br>Monterey spineflower | FT / -- / 1B | Maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland on sandy soils at elevations of 3-450 m. Annual herb in the Polygonaceae family; blooms April-July. | **Not Present**<br>An occurrence of this species overlaps with this component along SR 1; however, only marginal habitat is present and this species was not observed during surveys in 2024. | **Not Present**<br>No suitable habitat. Not observed during surveys in 2025. | **Not Present**<br>Marginal habitat is present within the potential staging area at Hilltop Rd; however, this species was not observed during surveys in 2025. | **Unlikely**<br>An occurrence of this species overlaps with this component on Trafton Rd.; however, only marginal habitat is present and this species was not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Unlikely** Only marginal habitat is present and this species was not observed during surveys in 2024. |
| *Chorizanthe robusta* var. *robusta*<br>Robust spineflower | FE / -- / 1B | Openings in cismontane woodland, coastal dunes, maritime chaparral, and coastal scrub on sandy or gravelly soils at elevations of 3-300 m. Annual herb in the Polygonaceae family; blooms April-September. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Cordylanthus rigidus* ssp. *littoralis*<br>Seaside bird's-beak | -- / SE / 1B | Closed-cone coniferous forests, maritime chaparral, cismontane woodlands, coastal dunes, and coastal scrub on sandy soils, often on disturbed sites, at elevations of 0-425 m. Annual hemi-parasitic herb in the Orobanchaceae family; blooms April-October. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>No suitable habitat. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Ericameria fasciculata*<br>Eastwood's goldenbush | -- / -- / 1B | Openings in closed-cone coniferous forest, maritime chaparral, coastal dunes, and coastal scrub on sandy soils at elevations of 30-275 m. Evergreen shrub in the Asteraceae family; blooms July-October. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |

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|---|---|---|---|---|---|---|---|---|
| | | | | | | | | **Springfield Distribution & Service Areas** |
| *Eryngium montereyense*<br>Fort Ord button-celery | -- / -- / 1B | Vernally moist swales and vernal pools in valley and foothill grassland surrounded by maritime chaparral and coast live oak woodland on marine sedimentary substrate at elevations or 120-180 m. Perennial herb in the Apiaceae family; blooms March-May. | **Not Present**<br>Component lacks the specialized habitat features to support this species, is outside of the currently known range, and is below the known elevation range. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species, is outside of the currently known range, and is below the known elevation range. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species, is outside of the currently known range, and is below the known elevation range. | **Not Present**<br>Component lacks the specialized habitat features to support this species, is outside of the currently known range, and is below the known elevation range. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation, is outside of the currently known range, and is below the known elevation range. | **Not Present**<br>Component lacks the specialized habitat features to support this species, is outside of the currently known range, and is below the known elevation range. Not observed during surveys in 2024. |
| *Erysimum ammophilum*<br>Sand-loving wallflower | -- / -- / 1B | Openings in maritime chaparral, coastal dunes, and coastal scrub on sandy soils at elevations of 0-60 m. Perennial herb in the Brassicaceae family; blooms February-June. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Erysimum menziesii*<br>Menzies' wallflower | FE / SE / 1B | Coastal dunes at elevations of 0-35 m. Perennial herb in the Brassicaceae family; blooms March-September. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation and is outside of the currently known range for this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2024. |
| *Fritillaria liliacea*<br>Fragrant fritillary | -- / -- / 1B | Cismontane woodland, coastal prairie, coastal scrub, and valley and foothill grassland, often serpentinite or heavy soils, at elevations of 3-410m. Bulbiferous perennial herb in the Liliaceae family; blooms February-April. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Gilia tenuiflora* ssp. *arenaria*<br>Monterey gilia | FE / ST / 1B | Openings in maritime chaparral, cismontane woodland, coastal dunes, and coastal scrub on sandy soils at elevations of 0-45 m. Annual herb in the Polemoniaceae family; blooms April-June. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Holocarpha macradenia*<br>Santa Cruz tarplant | FE / SE / 1B | Coastal prairies and valley foothill grasslands, often clay or sandy soils, at elevations of 10-220m. Annual herb in the Asteraceae family; blooms June-October. | **Not Present**<br>Marginal habitat is present; however, this species was not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. |
| *Horkelia cuneata* var. *sericea*<br>Kellogg's horkelia | -- / -- / 1B | Openings of closed-cone coniferous forests, maritime chaparral, coastal dunes, and coastal scrub on sandy or gravelly soils at elevations of 10-200 m. Perennial herb in the Rosaceae family; blooms April-September. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |

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| | | | | | | | | **Springfield Distribution & Service Areas** |
| *Horkelia marinensis*<br>Point Reyes horkelia | -- / -- / 1B | Coastal dunes, coastal prairie, and coastal scrub on sandy soils at elevations of 5-350 m. Perennial herb in the Rosaceae family; blooms May-September. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Lasthenia californica* ssp. *macrantha*<br>Perennial goldfields | -- / -- / 1B | Coastal bluff scrub, coastal dunes, and coastal scrub at an elevation of 5-520 m. Perennial herb in the Asteraceae family. Blooms January–November. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Lasthenia conjugens*<br>Contra Costa goldfields | FE / -- / 1B | Mesic areas of valley and foothill grassland, alkaline playas, cismontane woodland, and vernal pools at elevations of 0-470 m. Annual herb in the Asteraceae family; blooms March-June. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Legenere limosa*<br>Legenere | -- / -- / 1B | Vernal pools and wetlands at elevations of 1-880 m. Annual herb in the Campanulaceae family; blooms April-June. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is outside of the currently known range for this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Microseris paludosa*<br>Marsh microseris | -- / -- / 1B | Closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland at elevations of 5-300m. Perennial herb in the Asteraceae family; blooms April-July. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Marginal habitat is present within component; however, this species was not observed during surveys in 2025. | **Unlikely**<br>Not observed during surveys of potential staging area along Hilltop Rd. No suitable habitat within potential staging area along Salinas Rd. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Marginal habitat is present within the adjacent emergent wetlands; however, this species was not observed during surveys in 2024. |
| *Monardella sinuata* ssp. *nigrescens*<br>Northern curly-leaved monardella | -- / -- /1B | Chaparral, coastal dunes, coastal scrub, and lower montane coniferous forest (ponderosa pine sandhills) on sandy soils at elevations of 0-300 m. Annual herb in the Lamiaceae family; blooms April-September. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Monolopia gracilens*<br>Woodland wollythreads | -- / -- / 1B | Openings of broadleaved upland forest, chaparral, cismontane woodland, North Coast coniferous forest, and valley and foothill grassland on serpentinite soils at elevations of 100-1200m. Annual herb in the Asteraceae family; blooms February-July. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is below the known elevation range. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is below the known elevation range. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is below the known elevation range. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is below the known elevation range. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation and is below the known elevation range. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is below the known elevation range. Not observed during surveys in 2024. |

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| | | | | | | | | **Springfield Distribution & Service Areas** |
| *Pedicularis dudleyi*<br>Dudley's lousewort | -- / SR / 1B | Maritime chaparral, cismontane woodland, North Coast coniferous forest, and valley and foothill grassland at elevations of 60-900 m. Perennial herb in the Orbanchaceae family; blooms April-June. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is below the known elevation range. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is below the known elevation range. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is below the known elevation range. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is below the known elevation range. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation and is below the known elevation range. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is below the known elevation range. Not observed during surveys in 2024. |
| *Pentachaeta bellidiflora*<br>White-rayed pentachaeta | FE / SE / 1B | Cismontane woodland and valley and foothill grasslands, often on serpentinite soils, at elevations of 35-620 m. Annual herb in the Asteraceae family; blooms March-May. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Piperia yadonii*<br>Yadon's rein orchid | FE / -- / 1B | Sandy soils in coastal bluff scrub, closed-cone coniferous forest, and maritime chaparral at elevations of 10-510 m. Annual herb in the Orchidaceae family; blooms February-August. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Plagiobothrys chorisianus* var. *chorisianus*<br>Choris' popcorn-flower | -- / -- / 1B | Mesic areas of chaparral, coastal prairie, and coastal scrub at elevations of 15-160 m. Annual herb in the Boraginaceae family; blooms March-June. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Plagiobothrys diffusus*<br>San Francisco popcorn-flower | -- / SE / 1B | Seeps and mesic areas of coastal prairie and valley and foothill grassland at elevations of 60-360 m. Annual herb in the Boraginaceae family; blooms March-June. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |
| *Rosa pinetorum*<br>Pine rose | -- / -- / 1B | Closed-cone coniferous forest at elevations of 2-300 m. Perennial shrub in the Rosaceae family; blooms May-July. Possible hybrid of *R. spithamea*, *R. gymnocarpa*, or others; further study needed. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |

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| | | | | | | | | **Springfield Distribution & Service Areas** |
| *Trifolium buckwestiorum*<br>Santa Cruz clover | -- / -- / 1B | Gravelly margins of broadleaved upland forest, cismontane woodland, and coastal prairie at elevations of 105-610m. Annual herb in the Fabaceae family; blooms April-October. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is below the known elevation range. Not observed during surveys in 2024. | **Not Present**<br>Marginal habitat is present; however, Component is below the known elevation range. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is below the known elevation range. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is below the known elevation range. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation and is below the known elevation range. | **Not Present**<br>Component lacks the specialized habitat features to support this species and is below the known elevation range. Not observed during surveys in 2024. |
| *Trifolium hydrophilum*<br>Saline clover | -- / -- / 1B | Marshes and swamps, mesic and alkaline valley and foothill grassland, and vernal pools at elevations of 0-300 m. Annual herb in the Fabaceae family; blooms April-June. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2025. | **Not Present**<br>Component lacks the specialized habitat features to support this species. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. | **Not Present**<br>Component is under active cultivation. | **Not Present**<br>Component lacks the specialized habitat features to support this species. Not observed during surveys in 2024. |

**STATUS DEFINITIONS**

**Federal**

FE = listed as Endangered under the federal Endangered Species Act
FT = listed as Threatened under the federal Endangered Species Act
FC = Candidate for listing under the federal Endangered Species Act
-- = no listing

**State**

SE = listed as Endangered under the California Endangered Species Act
ST = listed as Threatened under the California Endangered Species Act
SC = Candidate for listing under the California Endangered Species Act
SR = listed as Rare under the California Endangered Species Act
CSC = California Department of Fish and Wildlife Species of Concern
CFP = California Fully Protected Animal
-- = no listing

**CALIFORNIA NATIVE PLANT SOCIETY**

1B = California Rare Plant Rank 1B species; plants rare, threatened, or endangered in California and elsewhere
2B = California Rare Plant Rank 2B species; plants rare, threatened, or endangered in California, but more common elsewhere
-- = no listing

**POTENTIAL TO OCCUR**

Present = known occurrence of species within the site; presence of suitable habitat conditions; or observed during field surveys
High = known occurrence of species in the immediate vicinity; presence of suitable habitat conditions
Moderate = known occurrence of species in the vicinity; presence of suitable habitat conditions
Low = species known to occur in the vicinity; presence of marginal habitat conditions
Unlikely = species not known to occur in the vicinity, no suitable habitat conditions
Not Present = species was not observed during surveys; or site lacks specialized habitat features to support the species

# APPENDIX E

HABITAT MAP




C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

# PSMS Area Regional Consolidation Project Habitats

N

0 0.5 1 2 Miles

Date 9/22/2025

Scale 1 in = 0.6 mi

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Appendix E-Key




C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

# PSMS Area Regional Consolidation Project Habitats

N

0 100 200 400 Feet

Date
8/28/2025

Scale
1 in = 175 ft

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Appendix
E-01

Phase 1 - Water System Consolidation
Phase 2 - Bluff Jensen Expansion
Phase 2 - Springfield Expansion
Additional Staging Areas

**Habitat**

Developed
Ruderal
Ruderal - Iceplant
Ruderal - Non-native Trees
Denuded - Agricultural Road
Denuded - Dirt Road
Active Agricultural
Non-Native Annual Grassland
Oak Woodland
Riparian

Highway 1
Moss Landing Middle School
Springfield Rd

C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

# PSMS Area Regional Consolidation Project Habitats

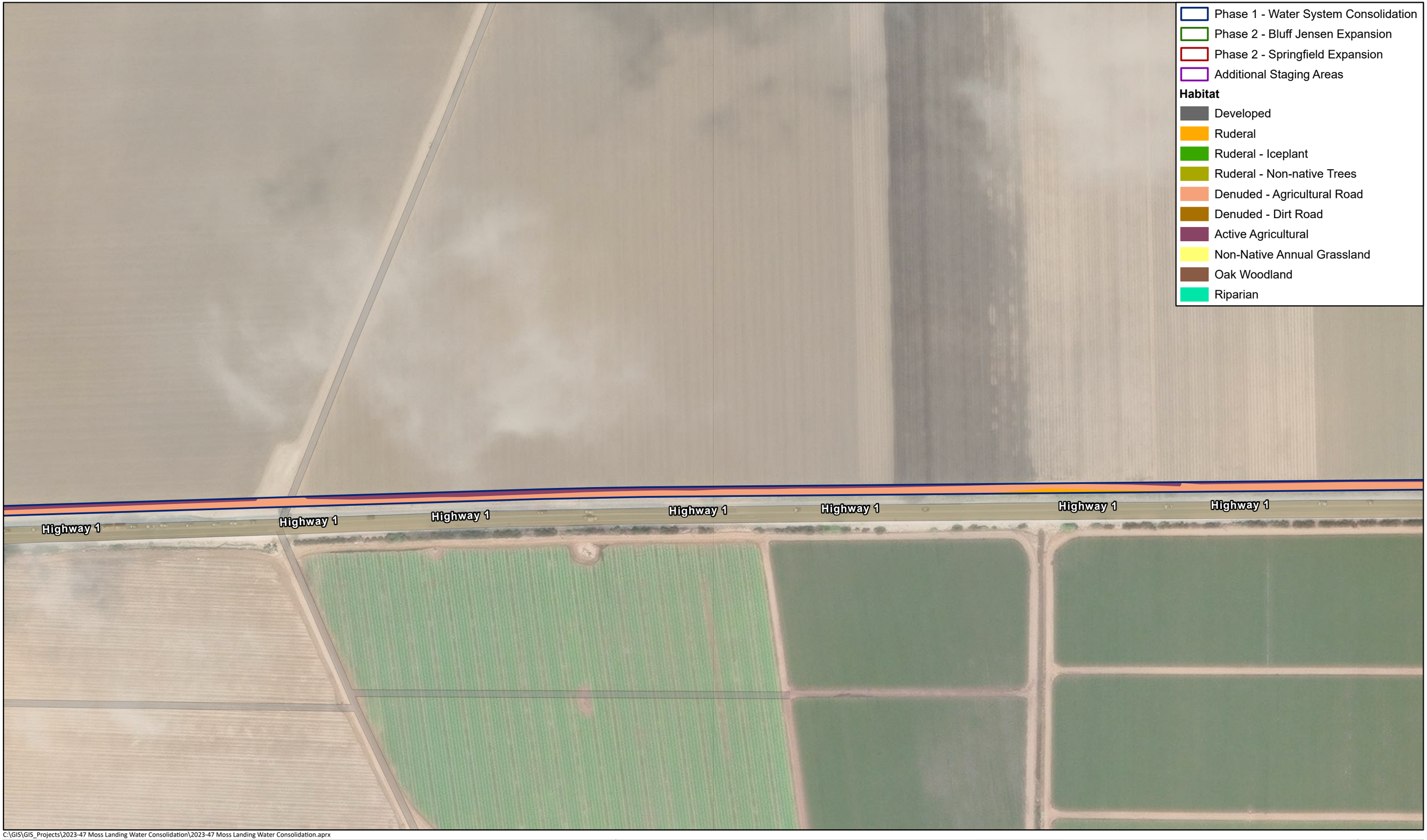
N 0 100 200 400 Feet

Date 8/28/2025

Scale 1 in = 175 ft

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Planning and Environmental Consulting

Appendix E-02




C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

# PSMS Area Regional Consolidation Project
# Habitats

N

0 100 200 400 Feet

Date
8/28/2025

Scale
1 in = 175 ft

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Appendix
E-03




C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

# PSMS Area Regional Consolidation Project
# Habitats

N 0 100 200 400 Feet

Date
9/22/2025

Scale
1 in = 175 ft

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Appendix
E-04

Phase 1 - Water System Consolidation
Phase 2 - Bluff Jensen Expansion
Phase 2 - Springfield Expansion
Additional Staging Areas

**Habitat**

Developed
Ruderal
Ruderal - Iceplant
Ruderal - Non-native Trees
Denuded - Agricultural Road
Denuded - Dirt Road
Active Agricultural
Non-Native Annual Grassland
Oak Woodland
Riparian

C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

# PSMS Area Regional Consolidation Project
# Habitats

N

0 100 200 400 Feet

Date
9/22/2025

Scale
1 in = 175 ft

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Appendix
E-05




C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

# PSMS Area Regional Consolidation Project
# Habitats

N

0 100 200 400 Feet

Date
9/22/2025

Scale
1 in = 175 ft

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Appendix
E-06




C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

# PSMS Area Regional Consolidation Project
# Habitats

0 100 200 400 Feet

Date
8/28/2025

Scale
1 in = 175 ft

DENISE DUFFY & ASSOCIATES, INC.
Planning and Environmental Consulting

Appendix
E-07

Phase 1 - Water System Consolidation
Phase 2 - Bluff Jensen Expansion
Phase 2 - Springfield Expansion
Additional Staging Areas

**Habitat**

Developed
Ruderal
Ruderal - Iceplant
Ruderal - Non-native Trees
Denuded - Agricultural Road
Denuded - Dirt Road
Active Agricultural
Non-Native Annual Grassland
Oak Woodland
Riparian

C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

# PSMS Area Regional Consolidation Project
# Habitats

N

0 100 200 400 Feet

Date
8/28/2025

Scale
1 in = 175 ft

DENISE DUFFY & ASSOCIATES, INC.
Planning and Environmental Consulting

Appendix
E-08




C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

# PSMS Area Regional Consolidation Project
# Habitats

N

0 100 200 400 Feet

Date
8/28/2025

Scale
1 in = 175 ft

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Appendix
E-09




C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

# PSMS Area Regional Consolidation Project Habitats

N

0 100 200 400 Feet

Date
8/28/2025

Scale
1 in = 175 ft

DENISE DUFFY & ASSOCIATES, INC.
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Appendix
E-10




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# PSMS Area Regional Consolidation Project Habitats

N

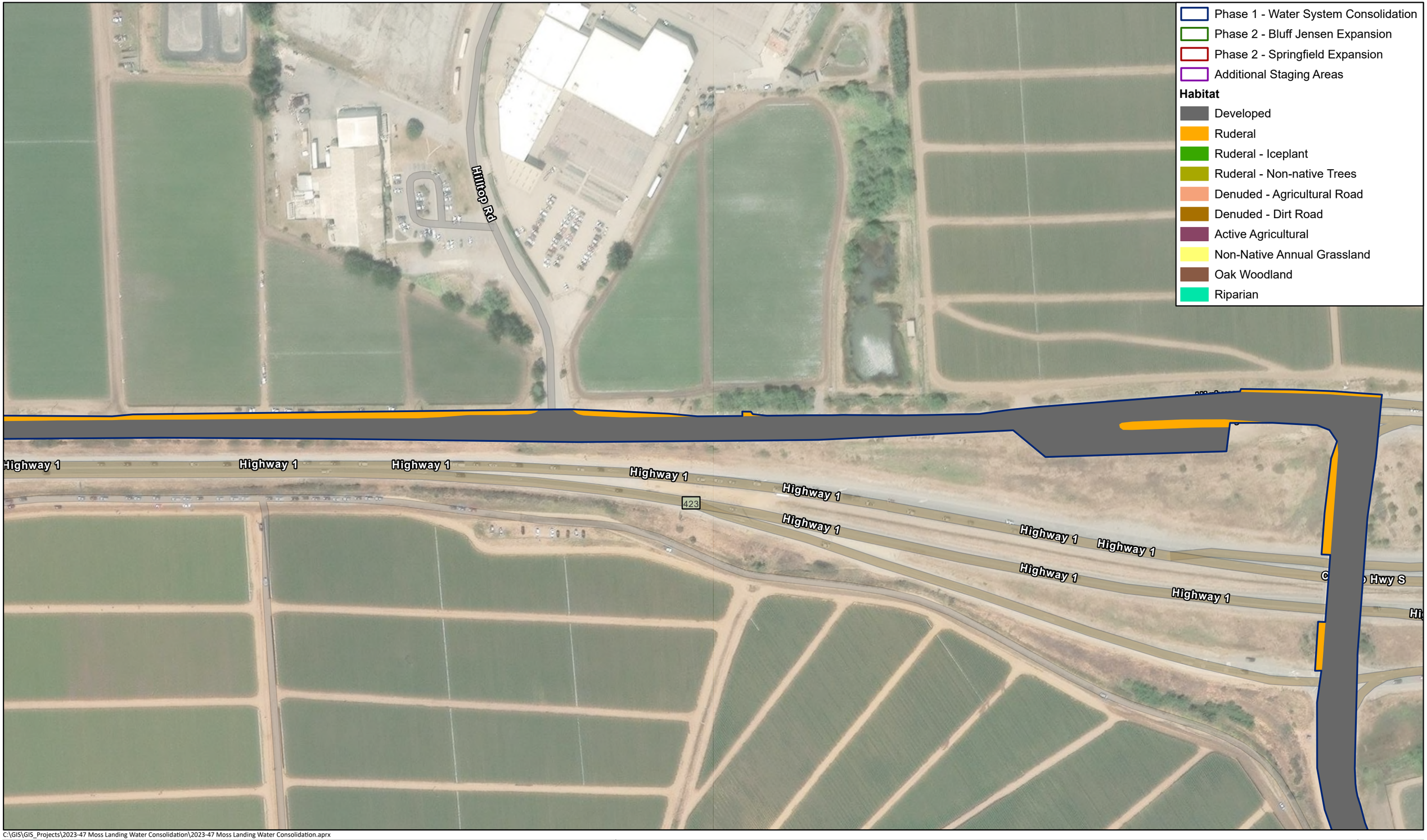
0 100 200 400 Feet

Date
8/28/2025

Scale
1 in = 175 ft

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Appendix
E-11




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# PSMS Area Regional Consolidation Project Habitats

N

0 100 200 400 Feet

Date
8/28/2025

Scale
1 in = 175 ft

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Appendix
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Phase 1 - Water System Consolidation
Phase 2 - Bluff Jensen Expansion
Phase 2 - Springfield Expansion
Additional Staging Areas

**Habitat**

Developed
Ruderal
Ruderal - Iceplant
Ruderal - Non-native Trees
Denuded - Agricultural Road
Denuded - Dirt Road
Active Agricultural
Non-Native Annual Grassland
Oak Woodland
Riparian

Gabrillo Hwy S
Highway 1
1
Bay Farms Rd

C:\GIS\GIS_Projects\2023-47 Moss Landing Water Consolidation\2023-47 Moss Landing Water Consolidation.aprx

# PSMS Area Regional Consolidation Project
# Habitats

N

0 100 200 400 Feet

Date
8/28/2025

Scale
1 in = 175 ft

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Appendix
E-13

Phase 1 - Water System Consolidation
Phase 2 - Bluff Jensen Expansion
Phase 2 - Springfield Expansion
Additional Staging Areas

**Habitat**

Developed
Ruderal
Ruderal - Iceplant
Ruderal - Non-native Trees
Denuded - Agricultural Road
Denuded - Dirt Road
Active Agricultural
Non-Native Annual Grassland
Oak Woodland
Riparian

Salinas Rd
Silver Stone St
Salinas Rd
Salinas Rd
Secondo Way
Secondo Way
Fruitland Ave
Verde Way
Verde Way
Rose Ct
Fruitland Ave
Meadow Way
Sunny Way
Salinas Rd
Salinas Rd
Garin Rd
Southern Pacific Railroad
Elkhorn Rd
Garin Rd

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# PSMS Area Regional Consolidation Project
# Habitats

N

0 100 200 400 Feet

Date
8/28/2025

Scale
1 in = 175 ft

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Appendix
E-14




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# PSMS Area Regional Consolidation Project
# Habitats

N

0 100 200 400 Feet

Date
8/28/2025

Scale
1 in = 175 ft

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Appendix
E-15




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# PSMS Area Regional Consolidation Project
# Habitats

N 0 100 200 400 Feet

Date
8/28/2025

Scale
1 in = 175 ft

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Appendix
E-16




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# PSMS Area Regional Consolidation Project Habitats

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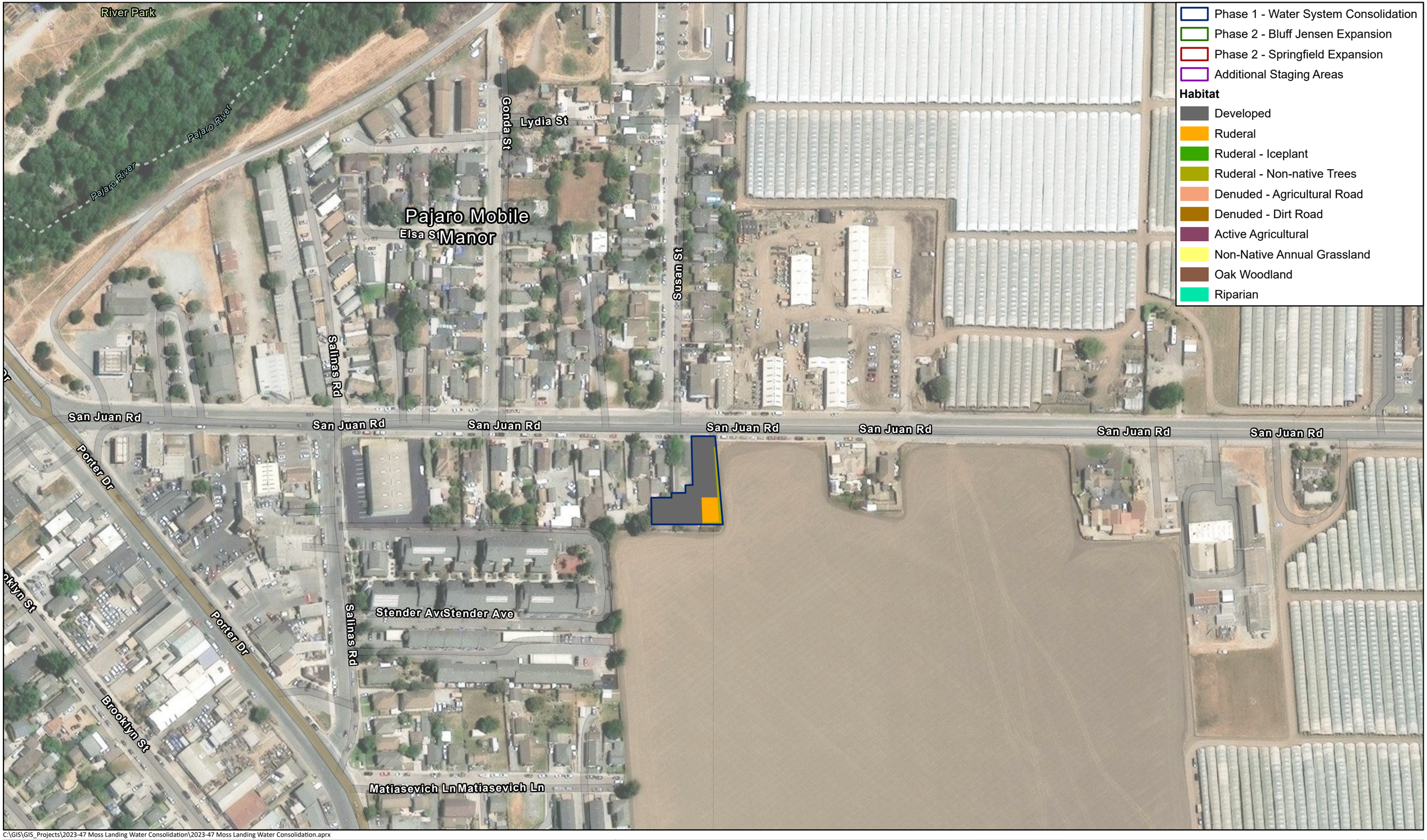
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8/28/2025

Scale
1 in = 175 ft

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Appendix
E-17




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# PSMS Area Regional Consolidation Project Habitats

N

0 100 200 400 Feet

Date
8/28/2025

Scale
1 in = 175 ft

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Appendix
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# Appendix D
# Phase I Archaeological Report

*This report has been omitted from publicly distributed copies of the IS/MND due to the potential confidential nature of findings related to cultural resource locations. Qualified personnel may request a copy of the Phase I Archaeological Report from the Pajaro/Sunny Mesa Community Services District for review.*

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# Appendix E
# Well Impact Study

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# Technical Memorandum

| | | | |
|---|---|---|---|
| TO | **Robyn Chaconas**<br>Community Water Center | FROM | **Nicholas Panofsky, PE**<br>**Mike Busby, PG**<br>MNS Engineers, Inc. |
| DATE | October 20, 2025 | | |
| SUBJECT | **Pajaro Well No. 1 and Well No. 2 Well Impact Study**<br>**Pajaro – Sunny Mesa – Springfield Area Regional Consolidation Project** | | |

The purpose of this Technical Memorandum (TM) is to provide a hydrogeologic evaluation to determine if proposed changes in the pumping operations for Pajaro Well No. 1 (PW-1) and Pajaro Well No. 2 (PW-2) will interfere with the production and functionality of existing nearby wells. The proposed pumping changes are part of the Pajaro – Sunny Mesa – Springfield Area Regional Consolidation Project (PSMS Project) for the Pajaro/Sunny Mesa Community Services District (District or PSMCSD).

## Background

The PSMS Project will consolidate the Pajaro Water System, the Sunny Mesa Water System, and the Springfield Water System, as well as additional private residences in the North of Moss Landing Area. As part of the Project, Sunny Mesa Well No. 1 and Well No. 2 will be converted from active to standby, and approximately 76 additional homes north of Moss Landing, currently served by private wells, will be integrated into the new consolidated system.

The water supply required to meet the demands of the Sunny Mesa Water System and the additional residences located north of Moss Landing is anticipated to transition from existing groundwater wells to the supply provided by existing wells within the Pajaro Water System. Based on pumping data from 2015 to 2022, provided in the PSMS Project Preliminary Engineering Report (PER) (MNS, April 2024), the existing Pajaro Water System produced an average of 281 acre-feet of groundwater per year. The proposed increase in extraction from the Pajaro Water System is estimated to be 116 acre-feet per year, for a total annual extraction of approximately 400 acre-feet per year (ac-ft/yr) or 1.1 acre-feet per day (ac-ft/day). The net groundwater extraction in the region is not anticipated to change with the transition of pumping from the Sunny Mesa Wells and the private well to the Pajaro Wells.

The Project proposes to split the total annual extraction between PW-1 and PW-2. Pajaro Well No. 1 is currently in standby status and will be converted to an active well. Pajaro Well No. 2 is active and providing water to the Pajaro Water System. These two wells are located approximately 3,370 feet apart and are shown on Figure 1. Other wells in the vicinity, registered in the California Department of Water Resources (DWR) database and likely constructed in the same geologic formation, are also shown on Figure 1. A well inventory table with information on these nearby registered wells is provided in Appendix A.

## Scope

This hydrological study projects the local groundwater level decline that could result from proposed increases in pumping from PW-1 and PW-2. The potential impact of groundwater drawdown to existing nearby wells is assessed.

## Hydrogeologic Setting

The hydrogeologic framework and regional aquifer characteristics described herein are based on the U.S. Geological Survey's Integrated Hydrologic Model for the Pajaro Valley Groundwater Basin (Hanson et al., 2014). The characteristics of the local aquifer are based on two 8-hour aquifer tests conducted at PW-1 and PW-2 by the District in September and October 2025. The projected pumping impact areas are based on calculations completed using AQTESOLV (version 4.50 - Standard) and FWD:SOLV (version 3.0), both developed by HydroSolve, Inc.

The aquifer system in the study area is characterized by Quaternary alluvial deposits overlying the Pleistocene Aromas Formation, which in turn rests on the Pliocene Purisima Formation. The alluvial deposits are heterogeneous, consisting of interbedded sands, silts, and gravels, with a fine-grained basal confining layer present locally (15–55 ft thick). These alluvial deposits range up to 380 ft thick and play a secondary role in local groundwater supply, mainly transmitting recharge to the underlying Aromas Formation (Hanson et al., 2014).

The Aromas Formation constitutes the principal water-bearing unit tapped by Pajaro Valley municipal wells, including Pajaro Wells No. 1 and No. 2. Hydrostratigraphically, the Aromas Formation is subdivided into an upper sandy aquifer, a discontinuous confining clay/silty clay unit, and a lower sandy aquifer. The formation consists of friable, quartzose, reddish-brown sands with fluvial and eolian facies; gravel lenses are common in fluvial sections. Thickness ranges from ~100 ft along the basin margins to 600 to 800 ft in the center of the Valley and near the Pajaro River mouth (Allen, 1946; Hanson et al., 2014). Textural heterogeneity results in locally high transmissivity zones, though semi-confining interbeds create vertical anisotropy. The Pajaro Valley Water Basin Management Plan Update (2014) describes the Aromas Formation as semi-confined to confined in the lower basin and unconfined in recharge areas.

Beneath the Aromas Formation, the Purisima Formation comprises marine mudstone, siltstone, and fine-grained sandstone. It has relatively low permeability and typically acts as a semi-confining unit.

Flow within the basin is predominantly downward from the alluvium to the upper Aromas, and then to the lower Aromas, with some leakage to the Purisima. A generalized geologic map and cross sections of the Pajaro Valley are provided in Figures 2 and 3.

## Aquifer Coefficients

The aquifer transmissivity (T) generally describes the ability of the penetrated aquifer to supply water to a pumping well. The T value is dependent on the hydraulic conductivity (K) and the aquifer thickness (b), and is defined by the relationship $T = K \times b$. Transmissivity is expressed in terms of gallons per day per foot (gpd/ft) or square feet per day ($ft^2$/day). Hydraulic conductivity is expressed in units of gallons per day per square foot (gpd/$ft^2$) or feet per day (ft/day).

The Integrated Hydrologic Model provides hydraulic properties for the Upper Aromas, the Aromas confining unit, and the Lower Aromas. Based on the Drillers Reports, included in Appendix B, it is assumed the screened intervals for PW-1 and PW-2 are in the Aromas Formation, but the specified geology sub-unit of the Aromas Formation cannot be conclusively determined. As such, the full range of aquifer properties for the Aromas Formation was taken into consideration for this assessment.

The Integrated Hydrologic Model lists lateral K values for the Aromas Formation of 0.6 to 167.4 ft/day (4.5 to 1,255 gpd/$ft^2$), and T values ranging from 6,500 to 13,000 $ft^2$/day (48,623 to 124,370 gpd/ft).

Storativity (S) is a dimensionless hydrogeologic property that describes how much water an aquifer releases or stores per unit surface area per unit change in hydraulic head. Storativity can be determined by multiplying the Specific Storage (Ss), with units $ft^{-1}$, by the aquifer thickness $S = Ss \times b$. The Integrated Hydrologic Model provides Ss values for the Aromas Formation ranging from $1.0 \times 10^{-6}$ to $2.1 \times 10^{-3}$ $ft^{-1}$. Using an assumed Aromas Formation thickness of 600 ft, the Storativity range is $6.0 \times 10^{-4}$ to 1.68.

Site-specific aquifer coefficients were developed using these aquifer coefficients in conjunction with data collected during the two pumping tests and the computer application AQTESOLV. The site-specific coefficients and the computer application FWD:SOLV were then used to project the drawdown and cone of depression due to the proposed pumping plan.

## Pajaro Wells

The Drillers Reports for both the Pajaro Well No. 1 and Well No. 2 are labeled Well #1 Pajaro Dunes, and are included in Appendix B.

**Pajaro Well No. 1**

Pajaro Well No. 1 was drilled and constructed in May 1986 and is located at the District office at 136 San Juan Road. This well has the Legacy Log Number 191850 and the DWR Well Completion Report (WCR) number WCR0122739. The well borehole was drilled to a depth of 600 feet, and the well was constructed with a 14-inch diameter casing to a depth of 600 feet, with screen intervals from 430 to 455 ft below ground surface (bgs) and 470 to 595 feet bgs. A sanitary seal was installed from the surface to a depth of 415 ft bgs. The aquifer material adjacent to the screen was reported on the Drillers Report to be fine brown sand from 375 to 455 ft bgs, brown clay from 455 to 476 ft bgs, fine brown sand with small clay from 476 to 580 ft bgs, hard shale from 580 to 581 ft bgs, and sand from 581 to 600 ft bgs. The District reports PW-1 has a pumping capacity of 800 gallons per minute (gpm).

Prior to conducting an 8-hour pump test on September 29, 2025, the static water level in PW-1 was 35 ft bgs, with an available drawdown of 395 ft to the top of the casing perforations. The pump test began at 450 gpm; however, an issue with the discharge lines occurred, and after approximately 20 minutes, the pumping rate was reduced to 350 gpm. After pumping at a constant rate of 350 gpm for almost 8 hours, the maximum drawdown recorded was 20 feet, equivalent to a pumping water level of approximately 55 feet bgs. This equates to a specific capacity of approximately 17.9 gallons per minute per foot of drawdown (gpm/ft). After the test, the water level was monitored until it had recovered to more than 90% of the maximum drawdown recorded. The water level in PW-2 was periodically measured during the pumping of PW-1; the water level in PW-2 dropped 1 foot during the PW-1 8-hour pump test. Data collected during the pumping test is provided in Appendix C.

**Pajaro Well #2**

Pajaro Well No. 2 was drilled in April 1986, with construction completed in May 1986. This well has the Legacy Log Number 173250 and the DWR WCR number WCR0122739. The well is located at a District-owned facility, along Railroad Avenue near the intersection with Allison Road. The well borehole was drilled to a depth of 1,200 feet, and the well was constructed with a 14-inch diameter casing to a depth of 600 feet. The well has a screen interval from 450 to 595 ft bgs, and a sanitary seal from the surface to a depth of 420 ft bgs. The aquifer material reported in the Drillers Reports is brown sand from 290 to 600 ft bgs. Pajaro Well No. 2 is reported to have a pumping capacity of 1,600 gpm.

Prior to conducting an 8-hour pump test on October 2$^{nd}$, 2025, the static water level in PW-2 was 36.5 ft bgs, with an available drawdown of 413 ft to the top of the perforations. The pump test began at 1525 gpm; however, the flow rate incrementally decreased to a final pumping rate of 1400 gpm. After pumping for 8 hours, the maximum drawdown recorded was 37.1 feet, equivalent to a pumping water level of approximately 73.6 feet bgs. This equates to a specific capacity of approximately 37.7 gpm/ft. After the test, the water level was monitored until it had recovered to more than 90% of the maximum drawdown recorded. The water level in PW-1 was periodically measured as a monitoring well during the pumping of PW-2. The water level in PW-1 dropped 1 foot during the PW-2 8-hour pump test. Data collected during the pumping test is provided in Appendix C.

## Site Specific Aquifer Coefficients

Water-level data from both pumping tests were analyzed using the computer application AQTESOLV. The data were evaluated using the Hantush–Jacob (1955) analytical solution for a leaky confined aquifer, which accounts for partial penetration since neither well fully penetrates the Aromas Formation.

The site-specific aquifer coefficients derived from AQTESOLV were subsequently verified and calibrated using the FWD:SOLV program. FWD:SOLV is a predictive modeling tool used to simulate drawdown in confined and unconfined aquifers responding to one or more pumping wells. The Theis (1935) forward-solution model was applied, assuming an isotropic, single-porosity, nonleaky aquifer. These assumptions tend to yield conservative results, with the Theis model typically predicting larger and deeper cones of depression than those observed in leaky systems such as the Aromas Formation.

FWD:SOLV was used to create predicted water level drawdown curves and cone of depression contour maps, illustrating the radius of the area with a hydrologic impact (water-level drawdown) based on the 8-hour pumping test at each well. The simulated results were then compared to observed drawdown data collected at the pumping and monitoring wells during field testing. The time duration for the cone of depression contour maps was set to coincide with the observed time during the pump test, where the water level in the monitoring well reached its lowest recorded value. The AQTESOLV and FWD:SOLV results are provided in Appendix D, and a summary of the site-specific aquifer coefficients determined from these analyses is presented in Table 1.

**Table 1: Summary of the Site-Specific Aquifer Coefficients**

| | Transmissivity (T) | Storativity (S) | Aquifer Model | Solution |
|---|---|---|---|---|
| Pajaro Well No. 1 | 7,810 $ft^2$/day | 0.00015 | Leaky | Huntush-Jacob 1955 |
| Pajaro Well No. 2 | 12,180 $ft^2$/day | 0.00055 | Leaky | Huntush-Jacob 1955 |

The difference in transmissivity values between the two wells is likely due to differences in the stratigraphy near each well.

## Proposed Pumping Plan

The proposed pumping plan for the Project is to split the total annual extraction of 400 ac-ft/yr or 1.1 ac-ft/day between PW-1 and PW-2. For the impact assessment, it was assumed the wells would operate at their maximum design flow rates of 800 and 1600 gpm. Additionally, it was assumed that only one well would operate each day, with the operating well switching daily, and that each well would only operate for a sufficient period to meet the average daily demand.

Based on these assumptions, PW-1 and PW-2 would each extract water every other day for approximately 7.5 hours and 3.7 hours, respectively. In comparison to the current Pajaro Water System operations, to meet the average daily demand, PW-2 pumps water for 2.6 hours per day at 1600 gpm.

## Impact of Proposed Pumping Plan

The drawdown and recovery curves for a 2-day pump cycle for both wells for the proposed pumping plan were created in FWD:SOLV and are provided in Appendix D. The drawdown curves show the water level in each well recovers to more than 95% of the maximum drawdown before the next well starts pumping.

FWD: SOLV was used to develop cone of depression contour maps to show the radius of the area with a hydrologic impact (water-level drawdown) based on the proposed pumping plan for 1-year and 10-year periods for both sets of aquifer coefficients. The results are provided in Appendix D. The transmissivity value of 7,810 $ft^2$/day and the

storativity value of 0.00015 resulted in a more conservative, deeper cone of depression. The contour lines from this cone of depression were superimposed on the well location map and presented in Figure 4. The locations of nearby registered wells whose casing is potentially screened in the Aromas Formation are also shown on Figures 1 and 4. A summary table of these wells is provided in Appendix A.

The pumping impact assessment indicates that after 10 years of the proposed pumping, the static water-level drawdown in the vicinity of PW-1 and PW-2, including nearby wells, is expected to be less than 5 feet. Similar to PW-1 and PW-2, the neighboring wells are assumed to be screened in the Aromas Formation and likely have over 100 feet of available drawdown to the top of their casing perforations.

A private domestic well, WCR2019-012003, is located approximately 600 feet to the southeast of PW-2, and is the closest well to either PW-1 or PW-2. While PW-2 is pumping, the water level in this well is likely to be lowered by approximately 12 feet from its static water level. Once PW-2 stops operating, the water level in this domestic well is expected to recover to approximately 95% of the maximum drawdown by the following day. The temporary impact on this private domestic well is similar for both the current operations and the proposed operations. The proposed pumping plan will reduce the frequency of this impact from the current daily operations, to every other day. After 10 years of the proposed pumping, the drawdown of the static water level in this domestic well is projected to be less than 5 feet.

The relatively minor change in the static water level in the area due to the proposed pumping plan is unlikely to interfere with the production and operation of existing nearby wells. The analysis does not consider regional groundwater level variations resulting from external influences, long-term regional trends, changes in groundwater extraction, or recharge events.

## Summary and Conclusions

The analyses presented herein indicate that the proposed groundwater extraction of approximately 400 ac-ft/yr (1.1 ac-ft/day) from Pajaro Well No. 1 and Well No. 2 is not expected to adversely impact existing wells of record. Based on the drawdown modeling results and the locations of neighboring wells identified from the DWR Well Completion Report database, no existing wells extracting water from the regional aquifer are projected to experience more than 5 feet of static water drawdown after 10 years of operation under the proposed pumping plan. The net groundwater extraction in the region is not anticipated to change with the transition of pumping from the Sunny Mesa Wells and the private well to the Pajaro Wells.

Respectfully Submitted,




Michael W. Busby
Professional Geologist, PG #9180
MNS Engineers, Inc.

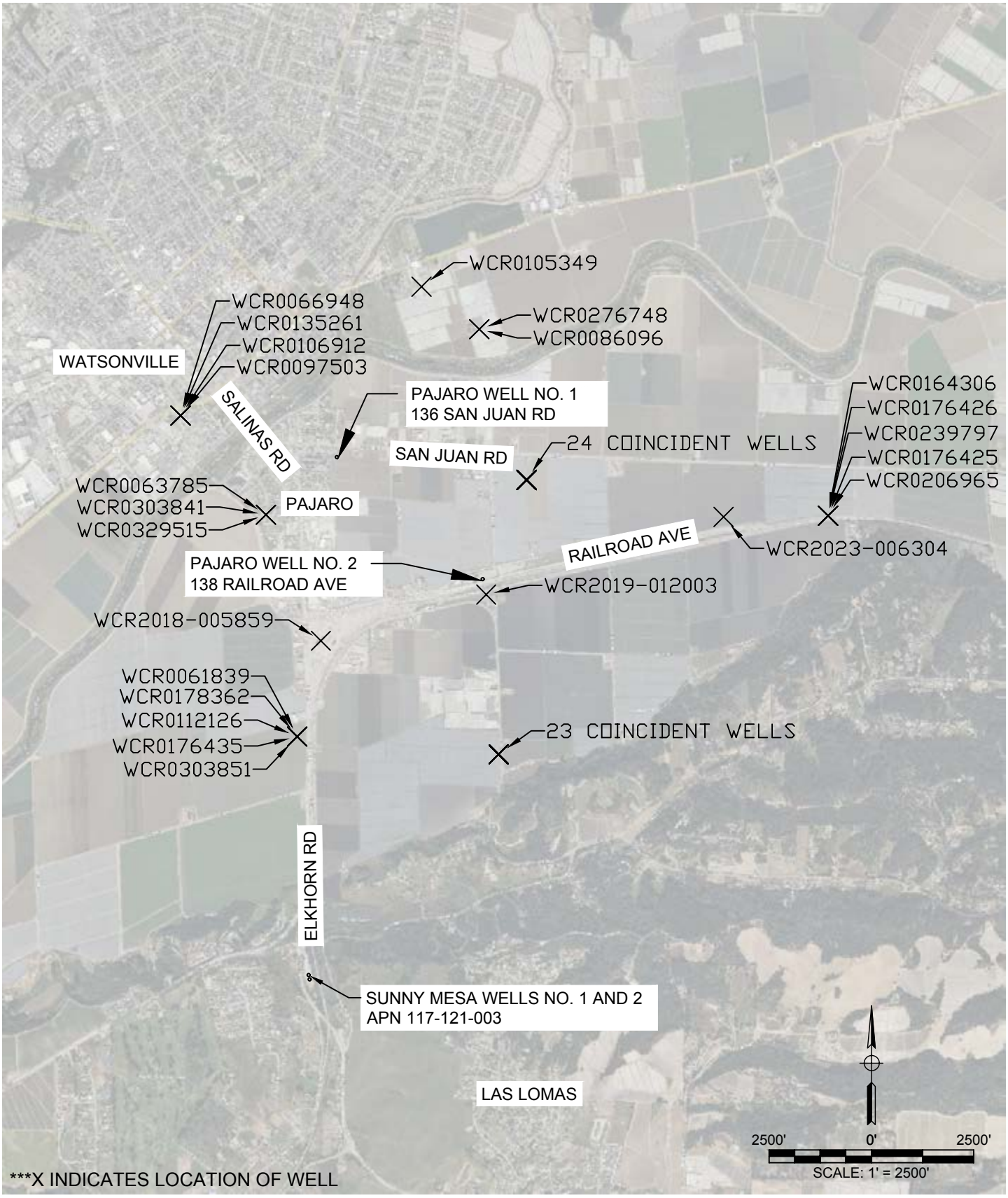
## References

Allen, J.E., 1946, *Geology of the Aromas area, Monterey County, California.*

Hanson, R.T., et al., 2014, *Integrated Hydrologic Model of Pajaro Valley, Santa Cruz and Monterey Counties, California,* USGS SIR 2014–5111.

Pajaro Valley Water Management Agency (PV Water), 2014, *Basin Management Plan Update*: Prepared by Pajaro Valley Water Management Agency, Watsonville, California, 185 p. Available at: https://www.pvwater.org/bmp-update

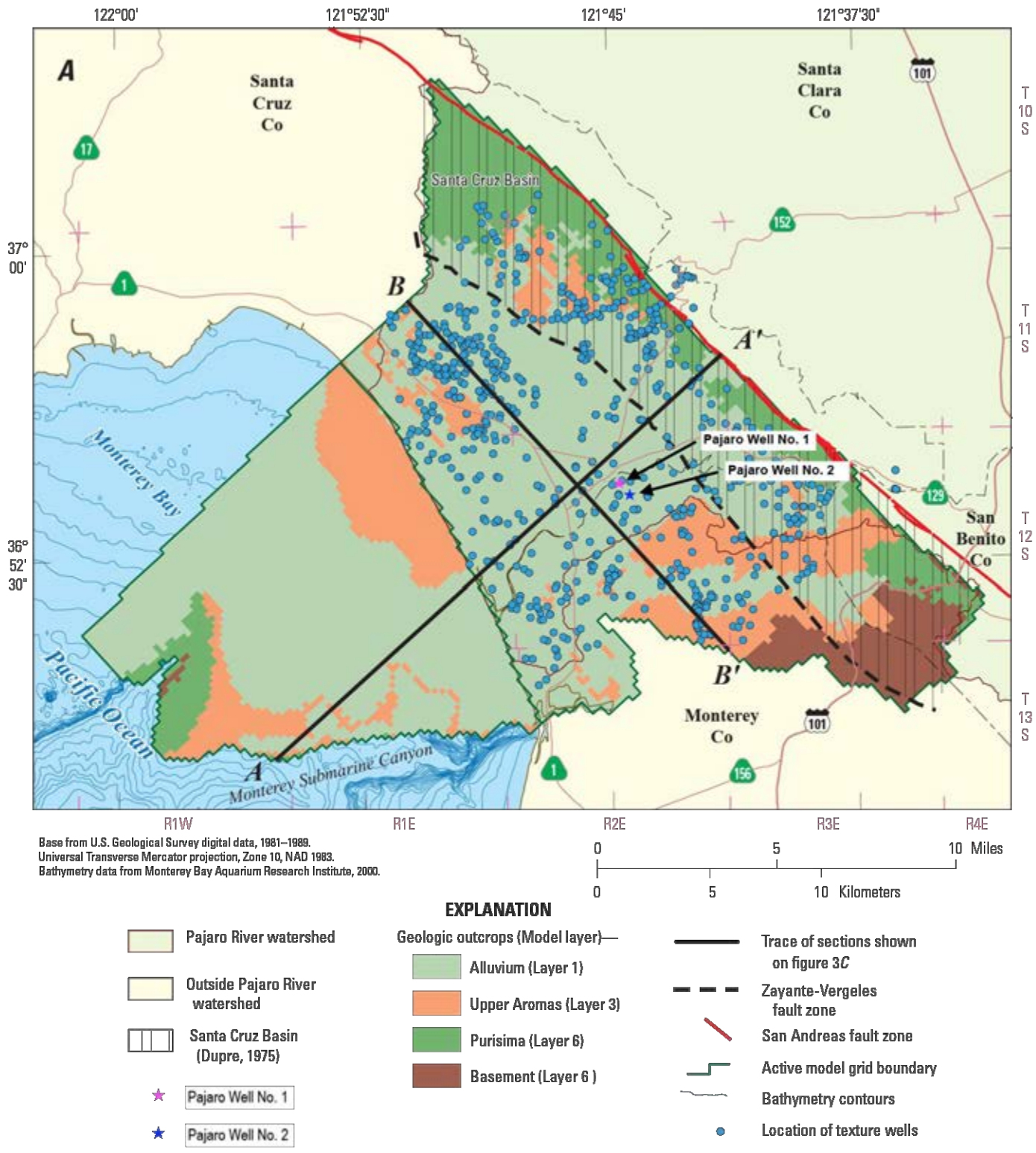
## Figures




# FIGURE 1: WELL LOCATION MAP
# WELL IMPACT STUDY
## PAJARO-SUNNY MESA-SPRINGFIELD AREA REGIONAL CONSOLIDATION

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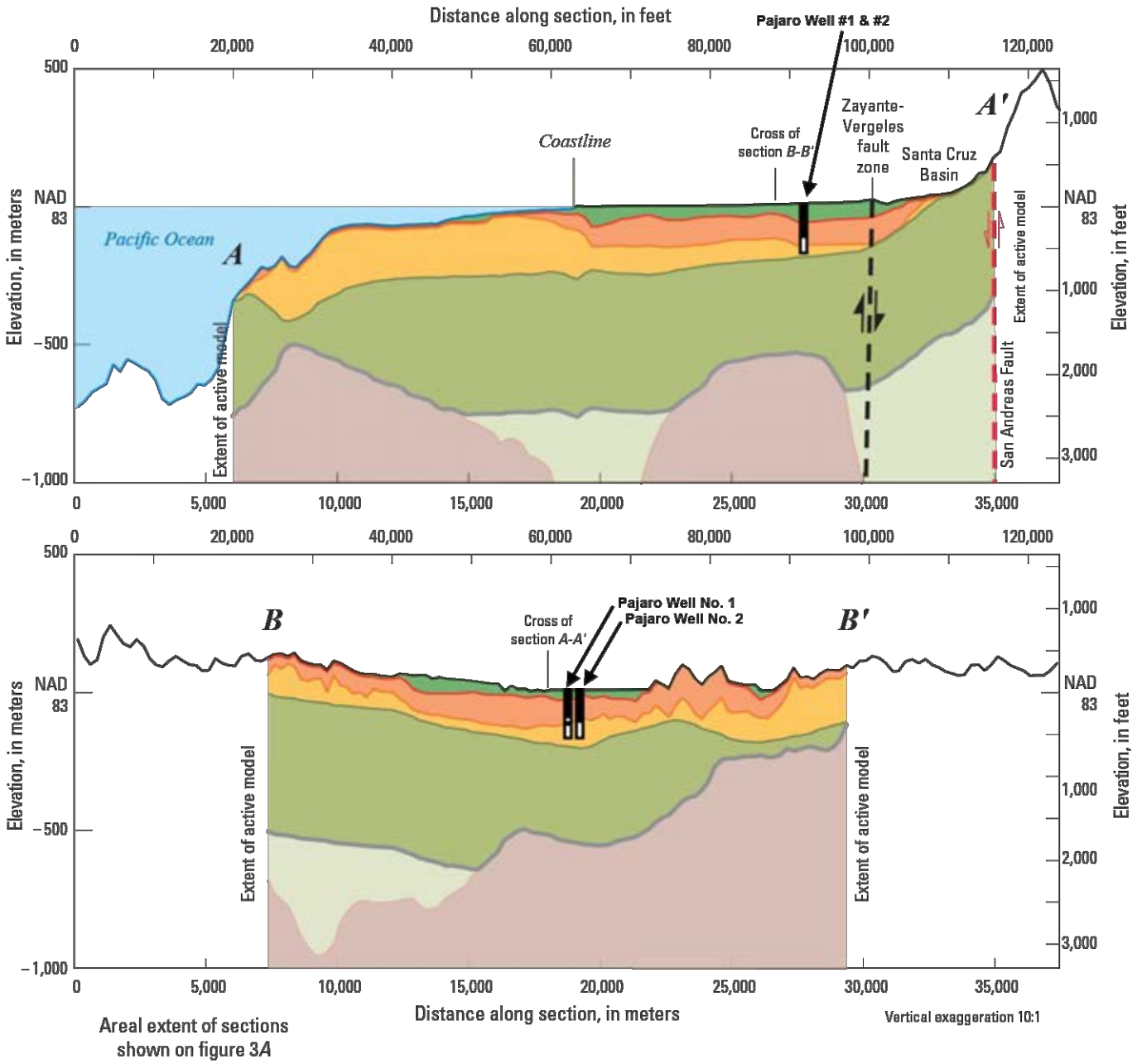

Hanson, R.T., et al., 2014, Integrated Hydrologic Model of Pajaro Valley, Santa Cruz and Monterey Counties,

# FIGURE 2: GENERALIZED GEOLOGIC MAP OF PAJARO VALLEY WELL IMPACT STUDY

## PAJARO-SUNNY MESA-SPRINGFIELD AREA REGIONAL CONSOLIDATION

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**EXPLANATION**

Geologic unit (basal clay units not shown)

- Alluvium (Layer 1 and 2)
- Upper Aromas (Layer 3 and 4)
- Lower Aromas (Layer 5)
- Purisima (darker green within model; light green excluded) (Layer 6)
- Basement

- Model base
- Land surface
- Bathymetry

Layer structure

- Alluvium (Layer 1)
- Alluvial confining unit (Layer 2)
- Upper Aromas (Layer 3)
- Aromas confining unit (Layer 4)
- Lower Aromas (Layer 5)
- Purisima (Layer 6)

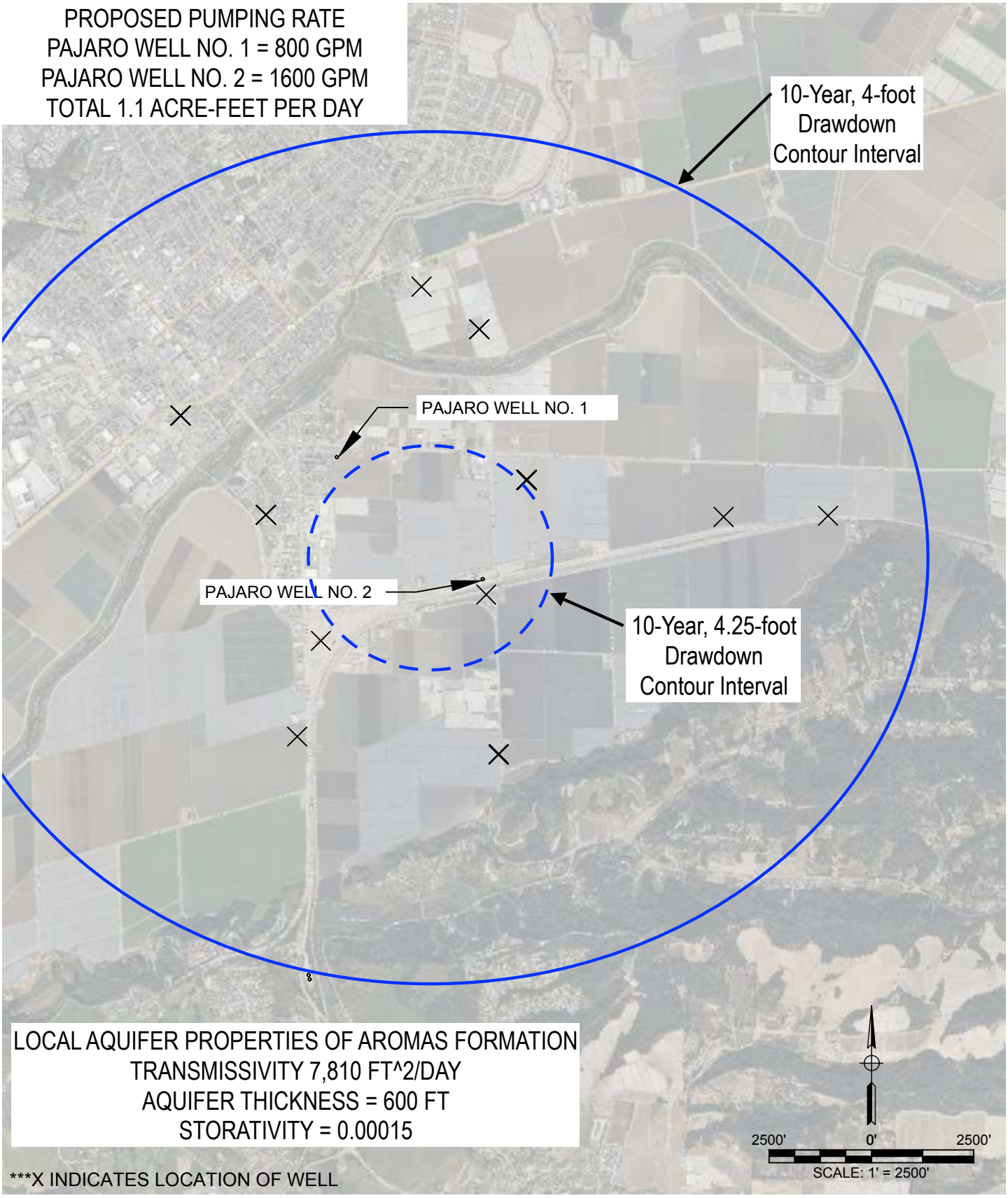
Hanson, R.T., et al., 2014, Integrated Hydrologic Model of Pajaro Valley, Santa Cruz and Monterey Counties,

# FIGURE 3: GENERALIZED GEOLOGIC CROSS SECTION OF PAJARO VALLEY WELL IMPACT STUDY

## PAJARO-SUNNY MESA-SPRINGFIELD AREA REGIONAL CONSOLIDATION

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# FIGURE 4: WELL IMPACT MAP
## WELL IMPACT STUDY
### PAJARO-SUNNY MESA-SPRINGFIELD AREA REGIONAL CONSOLIDATION

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## Appendix A: Nearby Well Info

# Table
# Well Inventory Near Pajaro Well No. 1 and Well No. 2
# Well Impact Study
# PSMS Project

| WCR Number | Decimal Latitude | Decimal Longitude | Date Work Ended | Total Completed Depth | Top Of Perforated Interval | Bottom of Perforated Interval | Casing Diameter | B118WellUse |
|---|---|---|---|---|---|---|---|---|
| WCR0016963 | 36.88907 | -121.73572 | 6/9/86 | 460 | 320 | 460 | 10 | Irrigation |
| WCR0017200 | 36.88907 | -121.73572 | 8/9/66 | 172 | 144 | 164 | 8 | Domestic |
| WCR0024113 | 36.90284 | -121.73537 | 9/18/69 | 184 | 152 | 184 | 6 | Domestic |
| WCR0025782 | 36.88907 | -121.73572 | 2/7/63 | 140 | 92 | 132 | 8 | Domestic |
| WCR0055952 | 36.88907 | -121.73572 | 1/15/78 | 218 | 170 | 210 | 8 | Domestic |
| WCR0061839 | 36.8888 | -121.7531 | 2/22/12 | 600 | | | | Irrigation |
| WCR0063785 | 36.90083 | -121.75022 | 12/25/00 | 460 | 450 | 460 | | Industrial |
| WCR0066514 | 36.90284 | -121.73537 | 10/7/78 | 380 | 320 | 370 | 8 | Irrigation |
| **WCR0066518** | **36.90284** | **-121.73537** | **5/1/86** | **600** | **450** | **595** | **14** | **Public Supply** |
| WCR0066948 | 36.90579 | -121.75592 | 11/28/83 | 600 | 380 | 600 | 16 | Industrial |
| WCR0078005 | 36.88907 | -121.73572 | 10/20/81 | 280 | 220 | 260 | 30 | Irrigation |
| WCR0080889 | 36.88907 | -121.73572 | 3/15/81 | 320 | 220 | 320 | 5 | Domestic |
| WCR0085699 | 36.90284 | -121.73537 | 6/24/74 | 250 | 210 | 250 | 26 | Irrigation |
| WCR0085704 | 36.88907 | -121.73572 | 9/28/97 | 670 | 640 | 670 | 30 | Irrigation |
| WCR0086096 | 36.90994 | -121.73804 | 4/10/72 | 92 | 83 | 88 | 18 | Irrigation |
| WCR0088579 | 36.90284 | -121.73537 | 4/11/66 | 212 | 144 | 204 | 14 | Industrial |
| WCR0097503 | 36.90579 | -121.75592 | 7/17/75 | 155 | 85 | 150 | 26 | Public Supply |
| WCR0101962 | 36.90284 | -121.73537 | 7/6/00 | 300 | | | | Irrigation |
| WCR0105349 | 36.9131 | -121.7415032 | 6/25/99 | 260 | | | | Domestic |
| WCR0106912 | 36.90579 | -121.75592 | 9/9/70 | 156 | 128 | 153 | 8 | Irrigation |
| WCR0112126 | 36.8888 | -121.7531 | 5/12/75 | 164 | 116 | 156 | 10 | Irrigation |
| WCR0115291 | 36.90284 | -121.73537 | 4/8/12 | 200 | | | | Irrigation |
| **WCR0122739** | **36.90284** | **-121.73537** | **5/8/86** | **600** | **470** | **595** | **32** | **Public Supply** |
| WCR0134211 | 36.90284 | -121.73537 | 5/31/89 | 670 | 550 | 620 | 16 | Irrigation |
| WCR0135261 | 36.90579 | -121.75592 | 1/17/90 | 500 | 180 | 480 | 5 | Domestic |
| WCR0146652 | 36.88907 | -121.73572 | 6/8/61 | 248 | 200 | 240 | 10 | Domestic |

# Table
# Well Inventory Near Pajaro Well No. 1 and Well No. 2
# Well Impact Study
# PSMS Project

| WCR Number | Decimal Latitude | Decimal Longitude | Date Work Ended | Total Completed Depth | Top Of Perforated Interval | Bottom of Perforated Interval | Casing Diameter | B118WellUse |
|---|---|---|---|---|---|---|---|---|
| WCR0148778 | 36.90284 | -121.73537 | 9/2/82 | 164 | 116 | 156 | 10 | Irrigation |
| WCR0150201 | 36.90284 | -121.73537 | 6/7/66 | 284 | 90 | 284 | 14 | Irrigation |
| WCR0161768 | 36.88907 | -121.73572 | 9/11/01 | 99 | | | | Unknown |
| WCR0164300 | 36.90284 | -121.73537 | 7/10/77 | 654 | 204 | 624 | 14 | Irrigation |
| WCR0164305 | 36.90284 | -121.73537 | 3/27/88 | 270 | 160 | 260 | 16 | Irrigation |
| WCR0164306 | 36.90345 | -121.71788 | 4/8/90 | | 500 | 560 | 16 | Irrigation |
| WCR0167797 | 36.90284 | -121.73537 | 3/14/96 | 220 | 200 | 220 | 6 | Domestic |
| WCR0167800 | 36.88907 | -121.73572 | 5/21/76 | 136 | 114 | 134 | 12 | Domestic |
| WCR0176425 | 36.90345 | -121.71788 | 8/8/86 | 365 | 310 | 350 | 8 | Domestic |
| WCR0176426 | 36.90345 | -121.71788 | 11/9/86 | 440 | 330 | 430 | 16 | Irrigation |
| WCR0176433 | 36.88907 | -121.73572 | 10/7/72 | 200 | 160 | 200 | 6.625 | Industrial |
| WCR0176435 | 36.8888 | -121.7531 | 8/24/97 | 600 | 300 | 600 | 16 | Irrigation |
| WCR0178362 | 36.8888 | -121.7531 | 5/5/75 | 315 | 300 | 310 | 20 | Industrial |
| WCR0180721 | 36.88907 | -121.73572 | 4/25/91 | 200 | 160 | 200 | 5 | Domestic |
| WCR0192266 | 36.90284 | -121.73537 | 2/23/01 | 560 | 400 | 560 | | Irrigation |
| WCR0195252 | 36.90284 | -121.73537 | 8/2/84 | 600 | 480 | 580 | 16 | Domestic |
| WCR0202646 | 36.88907 | -121.73572 | 9/11/01 | 200 | | | | Unknown |
| WCR0206965 | 36.90345 | -121.71788 | | 168 | | | 14 | Unknown |
| WCR0221018 | 36.88907 | -121.73572 | 3/17/76 | 170 | 138 | 170 | 6.625 | Domestic |
| WCR0232689 | 36.88907 | -121.73572 | 11/5/87 | 200 | 160 | 200 | 6 | Domestic |
| WCR0232690 | 36.88907 | -121.73572 | 12/21/78 | 192 | 144 | 184 | 8 | Domestic |
| WCR0235761 | 36.90284 | -121.73537 | 10/8/78 | 210 | 140 | 200 | 8 | Domestic |
| WCR0235762 | 36.90284 | -121.73537 | 7/14/77 | 435 | 400 | 430 | 26 | Irrigation |
| WCR0239797 | 36.90345 | -121.71788 | 4/11/89 | 380 | 220 | 360 | 16 | Irrigation |
| WCR0251205 | 36.88907 | -121.73572 | 11/2/81 | 170 | 100 | 150 | 30 | Irrigation |
| WCR0260871 | 36.88907 | -121.73572 | 9/28/14 | 260 | | | | Irrigation |

# Table
# Well Inventory Near Pajaro Well No. 1 and Well No. 2
# Well Impact Study
# PSMS Project

| WCR Number | Decimal Latitude | Decimal Longitude | Date Work Ended | Total Completed Depth | Top Of Perforated Interval | Bottom of Perforated Interval | Casing Diameter | B118WellUse |
|---|---|---|---|---|---|---|---|---|
| WCR0263397 | 36.90284 | -121.73537 | 9/11/03 | 280 | 120 | 280 | | Irrigation |
| WCR0265966 | 36.88907 | -121.73572 | 11/3/87 | 240 | 200 | 240 | 6 | Domestic |
| WCR0276611 | 36.90284 | -121.73537 | 7/19/77 | 340 | 305 | 335 | 20 | Irrigation |
| WCR0276613 | 36.88907 | -121.73572 | 3/14/83 | 180 | 120 | 160 | 5 | Domestic |
| WCR0276748 | 36.90994 | -121.73804 | 6/19/78 | 200 | 160 | 190 | 20 | Irrigation |
| WCR0293405 | 36.90284 | -121.73537 | 2/19/77 | 247 | 215 | 247 | 6.625 | Domestic |
| WCR0303841 | 36.90083 | -121.75022 | 8/1/78 | 220 | 170 | 210 | 20 | Irrigation |
| WCR0303846 | 36.88907 | -121.73572 | 5/4/89 | 240 | 200 | 240 | 5 | Domestic |
| WCR0303851 | 36.8888 | -121.7531 | 4/10/96 | 600 | 300 | 600 | 16 | Irrigation |
| WCR0314443 | 36.90284 | -121.73537 | 7/23/69 | 164 | 116 | 156 | 8 | Domestic |
| WCR0314445 | 36.88907 | -121.73572 | 8/30/89 | 260 | 140 | 240 | 6 | Domestic |
| WCR0316419 | 36.90284 | -121.73537 | 1/19/53 | 424 | 120 | 150 | 36 | Irrigation |
| WCR0316420 | 36.88907 | -121.73572 | 5/24/65 | 368 | 316 | 356 | 8 | Domestic |
| WCR0329515 | 36.90083 | -121.75022 | 1/29/75 | 163 | 136 | 156 | 12 | Irrigation |
| WCR0329516 | 36.90284 | -121.73537 | 4/20/80 | 349 | | | 14 | Irrigation |
| WCR2018-005859 | 36.894496 | -121.746589 | 6/21/18 | 124 | | | | Industrial |
| WCR2019-012003 | 36.8971702 | -121.7357752 | 8/13/19 | 460 | 400 | 460 | | Domestic |
| WCR2023-006304 | 36.901526 | -121.721214 | 5/25/23 | 490 | 330 | 490 | | Irrigation |
| WCR2024-004878 | 36.891 | -121.74697 | 11/15/23 | 400 | 300 | 400 | | Domestic |
| WCR2024-005587 | | | 8/13/87 | 175 | 110 | 170 | 6 | Domestic |
| WCR2024-007631 | | | 11/7/95 | 162 | | | | Unknown |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

## Appendix B: Drillers Report

Well #1

Pajaro Dunes

**ORIGINAL**

**File with DWR**

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

# WATER WELL DRILLERS REPORT

*Do not fill in*

No. 191850

State Well No. 12/02-10

Other Well No.

Notice of Intent No.

Local Permit No. or Date

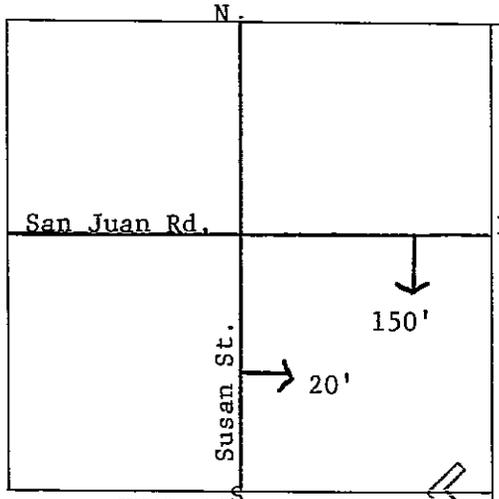
## (2) LOCATION OF WELL (See instructions):

County Monterey Owner's Well Number

Well address if different from above

Township Range Section

Distance from cities, roads, railroads, fences, etc. 150' south of San Juan Rd, 20' east of Susan St.




WELL LOCATION SKETCH

## (3) TYPE OF WORK:

New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

## (4) PROPOSED USE:

Domestic ☐
Irrigation ☐
Industrial ☐
Test Well ☐
Stock ☐
Municipal ☒
Other ☐

## (5) EQUIPMENT:

Rotary ☒ Reverse ☒
Cable ☐ Air ☐
Other ☐ Bucket ☐

## (6) GRAVEL PACK:

Yes ☒ No ☐ Size Monterey Sand 8x16
Diameter of bore 28"
Packed from 0 to 600 ft.

## (7) CASING INSTALLED:

Steel ☒ Plastic ☐ Concrete ☐

| From ft. | To ft. | Dia. in. | Gage or Wall |
|---|---|---|---|
| 0 | 30 | 32 | ¼ |
| 0 | 430 | 140D | 5/16 |
| 455 | 470 | 140D | 5/16 |
| 595 | 600 | 140D | 5/16 |

## (8) PERFORATIONS:

Type of perforation or size of screen: extra heavy screen with bullnose

| From ft. | To ft. | Slot size |
|---|---|---|
| conductor | | |
| 430 | 455 | .045 |
| 470 | 595 | .045 |

## (9) WELL SEAL:

Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 415 ft.
Were strata sealed against pollution? Yes ☒ No ☐ Interval 415 ft.
Method of sealing Grout

## (10) WATER LEVELS:

Depth of first water, if known 25 ft.
Standing level after well completion 25 ft.

## (11) WELL TESTS:

Was well test made? Yes ☒ No ☐ If yes, by whom? Zim Irri.
Type of test Pump ☒ Bailer ☐ Air lift ☐
Depth to water at start of test ft. At end of test ft.
Discharge gal/min after hours Water temperature
Chemical analysis made? Yes ☐ No ☒ If yes, by whom?
Was electric log made? Yes ☒ No ☐ If yes, attach copy to this report

## (12) WELL LOG:

Total depth 600 ft. Depth of completed well 600 ft.

| from ft. | to ft. | Formation (Describe by color, character, size or material) |
|---|---|---|
| 0 | 5 | Heavy Top Soil |
| 5 | 30 | Clay |
| 30 | 40 | Sand |
| 40 | 65 | Clay |
| 65 | 74 | Sand |
| 74 | 138 | Sandy Blue Clay |
| 138 | 180 | Sand & Gravel |
| 180 | 345 | Fine Brown Sand |
| 345 | 365 | Clay "Grey" |
| 365 | 375 | Sticky Brown Clay |
| 375 | 455 | Fine Brown Sand |
| 455 | 476 | Brown Clay |
| 476 | 580 | Fine Brown Sand With Small Clay Stratas |
| 580 | 581 | Hard Shale |
| 581 | 600 | Sand |

Work started 5-5-86 19 Completed 5-9 19 86

## WELL DRILLER'S STATEMENT:

*This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.*

SIGNED (Well Driller)

NAME Arthur & Orum Well Drilling Co., Inc. (Person, firm, or corporation) (Typed or printed)

Address 3262 E. Conejo AVe.

City Fresno, Ca. Zip 93725

License No. Date of this report May 9, 1986

DWR 188 (REV. 7-76) IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

NOT A PUBLIC RECORD
NOT FOR PUBLIC USE
SEC. 13752

Well #1
Pajaro Dunes

**ORIGINAL**

**File with DWR**

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF WATER RESOURCES

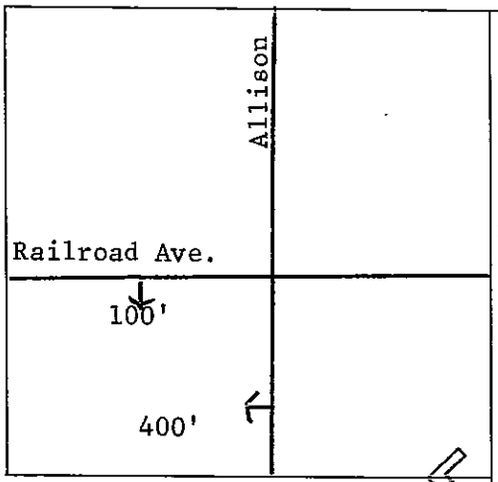
# WATER WELL DRILLERS REPORT

*Do not fill in*
No. 173250
State Well No. 12/02-16
Other Well No.

Notice of Intent No.
Local Permit No. or Date

## (2) LOCATION OF WELL (See instructions):

County Monterey Owner's Well Number
Well address if different from above
Township Range Section
Distance from cities, roads, railroads, fences, etc. One hundred feet south fo Railroad Ave., four hundred feet west of Allison



WELL LOCATION SKETCH

## (3) TYPE OF WORK:

New Well ☒ Deepening ☐
Reconstruction ☐
Reconditioning ☐
Horizontal Well ☐
Destruction ☐ (Describe destruction materials and procedures in Item 12)

## (4) PROPOSED USE:

Domestic ☐
Irrigation ☐
Industrial ☐
Test Well ☐
Stock ☐
Municipal ☐
Other ☐

## (5) EQUIPMENT:

Rotary ☒ Reverse ☒
Cable ☐ Air ☐
Other ☐ Bucket ☐

## (6) GRAVEL PACK:

Yes ☒ No ☐ Size Monterey Sand 8x16
Diameter of bore 28"
Packed from 0 to 460 ft.

## (7) CASING INSTALLED:

Steel ☒ Plastic ☐ Concrete ☐

## (8) PERFORATIONS:

Type of perforation or size of screen: extra heavy screen

| From ft. | To ft. | Dia. in. | Gage or Wall | From ft. | To ft. | Slot size |
|---|---|---|---|---|---|---|
| 0 | 100 | 14 | 5/16 | | | |
| 100 | 450 | 14 | 3/8 | 450 | 595 | 45,000 |
| 595 | 600 | 14 | 5/16 | | | |

## (9) WELL SEAL:

Was surface sanitary seal provided? Yes ☒ No ☐ If yes, to depth 420 ft.
Were strata sealed against pollution? Yes ☒ No ☐ Interval 420 ft.
Method of sealing

## (10) WATER LEVELS:

Depth of first water, if known ft.
Standing level after well completion ft.

## (11) WELL TESTS:

Was well test made? Yes ☒ No ☐ If yes, by whom? Zimm
test Pump ☒ Bailer ☐ Air lift ☐
ater at start of test ft. At end of test ft
gal/min after hours Water temperature
made? Yes ☐ No ☒ If yes, by whom?
ade? Yes ☒ No ☐ If yes, attach copy to this report

## (12) WELL LOG:

Total depth 1200 ft. Depth of completed well 600 ft.

| from ft. | to | ft. | Formation (Describe by color, character, size or material) |
|---|---|---|---|
| 0 | - | 3 | Heavy top soil |
| 3 | - | 25 | Clay |
| 25 | - | 45 | Sand |
| 45 | - | 75 | Clay |
| 75 | - | 105 | Sand |
| 105 | - | 150 | Clay |
| 150 | - | 162 | Coarse sand & gravel |
| 162 | - | 290 | Silty brown sand |
| 290 | - | 600 | Brown sand |
| 600 | - | 692 | Silty brown sand |
| 692 | - | 1200 | Silty brown shales |

Work started 4-28 19 86 Completed 5-2 1986

## WELL DRILLER'S STATEMENT:

*This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.*

SIGNED (Well Driller)
NAME Arthur & Orum Well Drilling, Inc. (Person, firm, or corporation) (Typed or printed)
Address 3262 E. Conejo Ave.
City Fresno, Ca. Zip 93725
License No. 361319 Date of this report 5-2-86

IF ADDITIONAL SPACE IS NEEDED, USE NEXT CONSECUTIVELY NUMBERED FORM

NOT FOR PUBLIC USE
WATER CODE SEC. 13752

## Appendix C: Pump Test Data

**Pajaro/Sunny Mesa Community Services District**

**Water System:** Pajaro
**Well ID:** 2710020_001
**Case Diameter:** 18 inch
**Sounding Tube Diameter:** 1/2 inch
**Pump Depth:** 200 Feet
**Offset:** 3 Feet

**Date:** September 27, 2025 **Static Water Level:** 35 feet

| Time | Water Level/Feet | Flow/gpm | Monitor Well 2 |
|---|---|---|---|
| 8:05 AM | 46 | 450 | 36.5 |
| 8:10 AM | 47 | | 36.5 |
| 8:15 AM | 47 | | 36.5 |
| 8:20 AM | 47 | 350 | 36.5 |
| 8:25 AM | 47 | | 36.5 |
| 8:30 AM | 47 | | 36.5 |
| 8:45 AM | 55 | 350 | 36.5 |
| 9:00 AM | 55 | 350 | 36.5 |
| 9:15 AM | 54 | 350 | 36.5 |
| 9:30 AM | 55 | 350 | 36.5 |
| 9:45 AM | 54 | 350 | 36.5 |
| 10:00 AM | 54 | 350 | 36.5 |
| 10:15 AM | 54 | 350 | 36.5 |
| 10:30 AM | 54 | 350 | 36.5 |
| 10:45 AM | 54 | 350 | 36.5 |
| 11:00 AM | 55 | 350 | 36.5 |
| 11:15 AM | 55 | 350 | 36.5 |
| 11:30 AM | 55 | 350 | 36.5 |
| 11:45 AM | 55 | 350 | 36.5 |
| 12:00 PM | 55 | 350 | 36.5 |
| 12:15 PM | 55 | 350 | 36.5 |
| 12:30 PM | 55 | 350 | 36.5 |
| 12:45 PM | 55 | 350 | 36.58 |
| 1:00 PM | 55 | 350 | 36.58 |
| 1:15 PM | 55 | 350 | 36.58 |
| 1:30 PM | 55 | 350 | 36.9 |
| 1:45 PM | 55 | 350 | 37.15 |
| 2:00 PM | 55 | 350 | 37.32 |
| 2:15 PM | 55 | 350 | 37.32 |
| 2:30 PM | 55 | 350 | 37.4 |
| 2:45 PM | 55 | 350 | |
| 3:00 PM | 55 | 350 | |
| 3:15 PM | 55 | 350 | |
| 3:30 PM | 55 | 350 | |
| 3:45 PM | 55 | 350 | |
| Completed test 4:00:00 PM | 55 | 350 | |

| | |
|---|---|
| 4:15 PM | 37 |
| 4:30 PM | 36.5 |
| 4:45 PM | 36.4 |

**Pajaro/Sunny Mesa Community Services District**

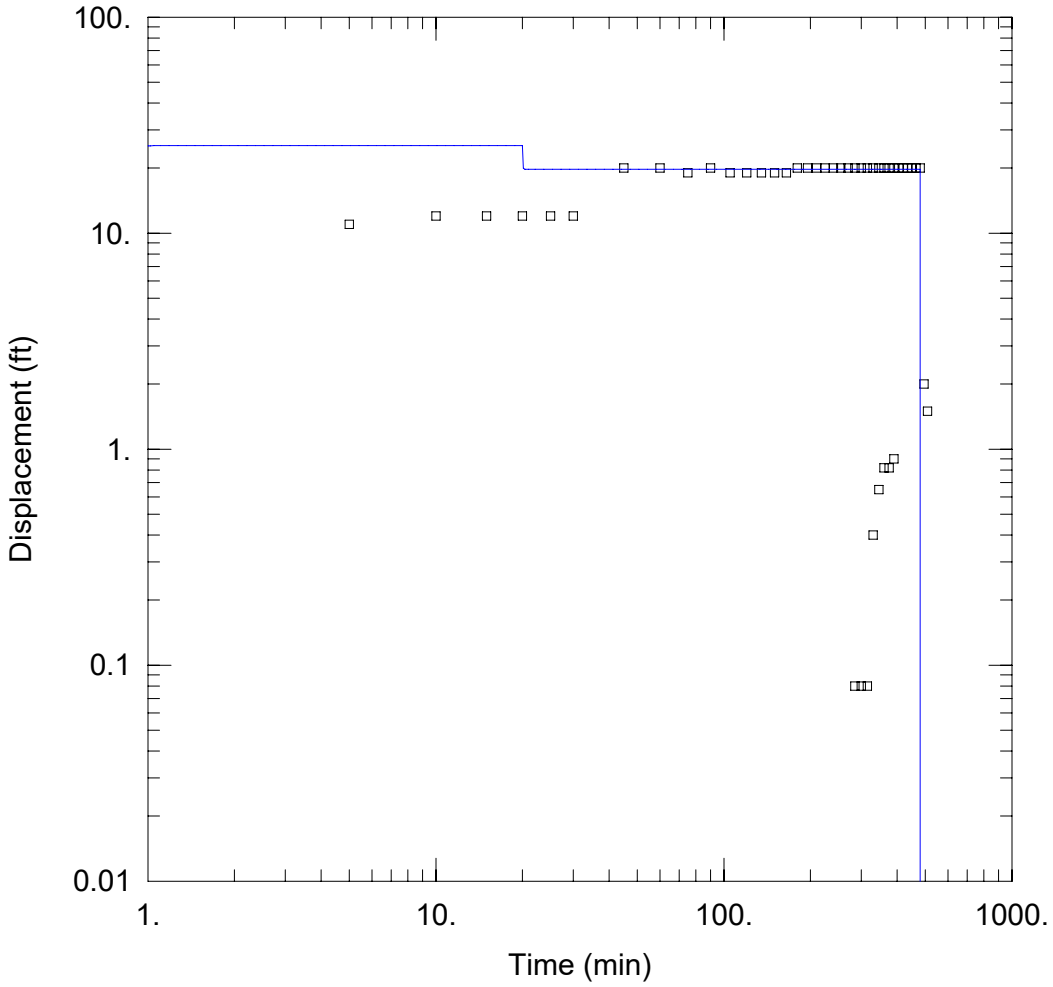
**Water System:** Pajaro
**Well ID:** 2710020_002
**Case Diameter:** 16 inches
**Sounding Tube Diameter:** 3 inches
**Pump Depth:**
**Offset:** 3.6 Feet

**Date:** October 2, 2025 **Static Water Level:** 36.5 feet

| Time | Water Level/Feet | Flow/gpm | Monitor Well 1 |
|---|---|---|---|
| 7:10 AM | 62.5 | 1525 | |
| 7:20 AM | 63.5 | 1500 | 35 feet |
| 7:25 AM | 66.5 | 1500 | |
| 7:30 AM | 73.5 | 1500 | 35 feet |
| 7:35 AM | 73.5 | 1500 | |
| 7:40 AM | 73.5 | 1500 | |
| 7:45 AM | 73.9 | 1480 | 35 feet |
| 8:00 AM | 73.9 | 1480 | 35 feet |
| 8:15 AM | 73.9 | 1480 | 35 feet |
| 8:30 AM | 74 | 1480 | 35 feet |
| 8:45 AM | 74 | 1480 | 35 feet |
| 9:00 AM | 74 | 1480 | 35 feet |
| 9:15 AM | 74 | 1450 | 35 feet |
| 9:30 AM | 74.6 | 1450 | 35 feet |
| 9:45 AM | 74.6 | 1450 | 35 feet |
| 10:00 AM | 74.6 | 1450 | 35 feet |
| 10:15 AM | 74.6 | 1450 | 35 feet |
| 10:30 AM | 74.6 | 1450 | 35 feet |
| 10:45 AM | 74.6 | 1425 | 35 feet |
| 11:00 AM | 74.6 | 1425 | 35 feet |
| 11:15 AM | 74.6 | 1425 | 35.9 feet |
| 11:30 AM | 74.6 | 1425 | 35.9 feet |
| 11:45 AM | 74.4 | 1425 | 35.9 feet |
| 12:00 PM | 74.4 | 1425 | 35.9 feet |
| 12:15 PM | 74.4 | 1425 | 35.9 feet |
| 12:30 PM | 74.4 | 1400 | 35.9 feet |
| 12:45 PM | 74 | 1400 | 35.9 feet |
| 1:00 PM | 74.4 | 1400 | 36 feet |
| 1:15 PM | 74.4 | 1400 | 36 feet |
| 1:30 PM | 74 | 1400 | 36 feet |
| 1:45 PM | 74 | 1400 | 36 feet |
| 2:00 PM | 73.6 | 1400 | 36 feet |
| 2:15 PM | 73.6 | 1400 | 36 feet |
| 2:30 PM | 73.6 | 1400 | 36 feet |
| 2:45 PM | 73.6 | 1400 | 36 feet |
| Completed test 3:00:00 PM | 73.6 | 1400 | 36 feet |

| | |
|---|---|
| 3:01 PM | 40.6 |
| 3:02 PM | 39.6 |
| 3:03 PM | 40.6 |
| 3:04 PM | 40.2 |
| 3:05 PM | 38.6 |
| 3:06 PM | 39.6 |
| 3:07 PM | 39.6 |
| 3:08 PM | 39.6 |
| 3:09 PM | 39.6 |
| 3:10 PM | 39.6 |
| 3:11 PM | 40 |
| 3:12 PM | 39.6 |
| 3:13 PM | 39.6 |
| 3:14 PM | 39.6 |
| 3:15 PM | 39.6 |
| 3:20 PM | 39.6 |
| 3:25 PM | 37.6 |
| 3:30 PM | 37.6 |
| 3:35 PM | 37.6 |
| 3:40 PM | 37.5 |
| 3:45 PM | 37.5 |
| 3:50 PM | 37.2 |
| 3:55 PM | 37 |
| 4:00 PM | 35.1 |
| 4:05 PM | 37 |
| 4:10 PM | 36.6 |

## Appendix D: Model Data




## PUMPING IMPACT STUDY

Data Set: C:\...\Pajaro_Well_1_T=7810.aqt
Date: 10/07/25 Time: 21:40:37

## PROJECT INFORMATION

Company: MNS Engineers
Client: CWC
Project: PSMS
Location: Pajaro, CA
Test Well: Pajaro Well 1
Test Date: 9/29/25

## WELL DATA

Pumping Wells

| Well Name | X (ft) | Y (ft) |
|---|---|---|
| Pajaro Well 1 | 0 | 0 |

Observation Wells

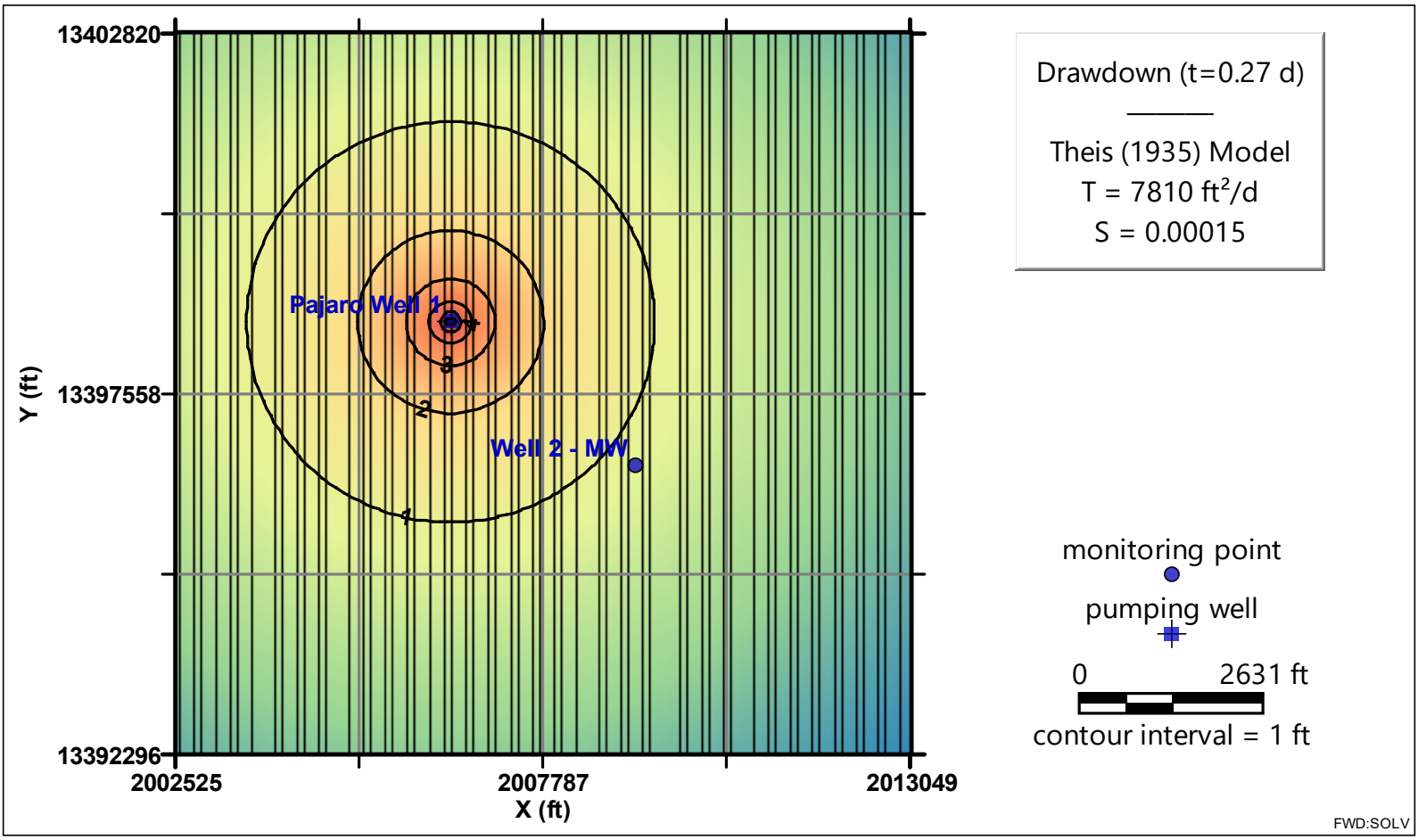
| Well Name | X (ft) | Y (ft) |
|---|---|---|
| ▫ Pajaro Well 1 | 0 | 0 |
| ▫ Pajaro Well 2 | 0 | 3370 |

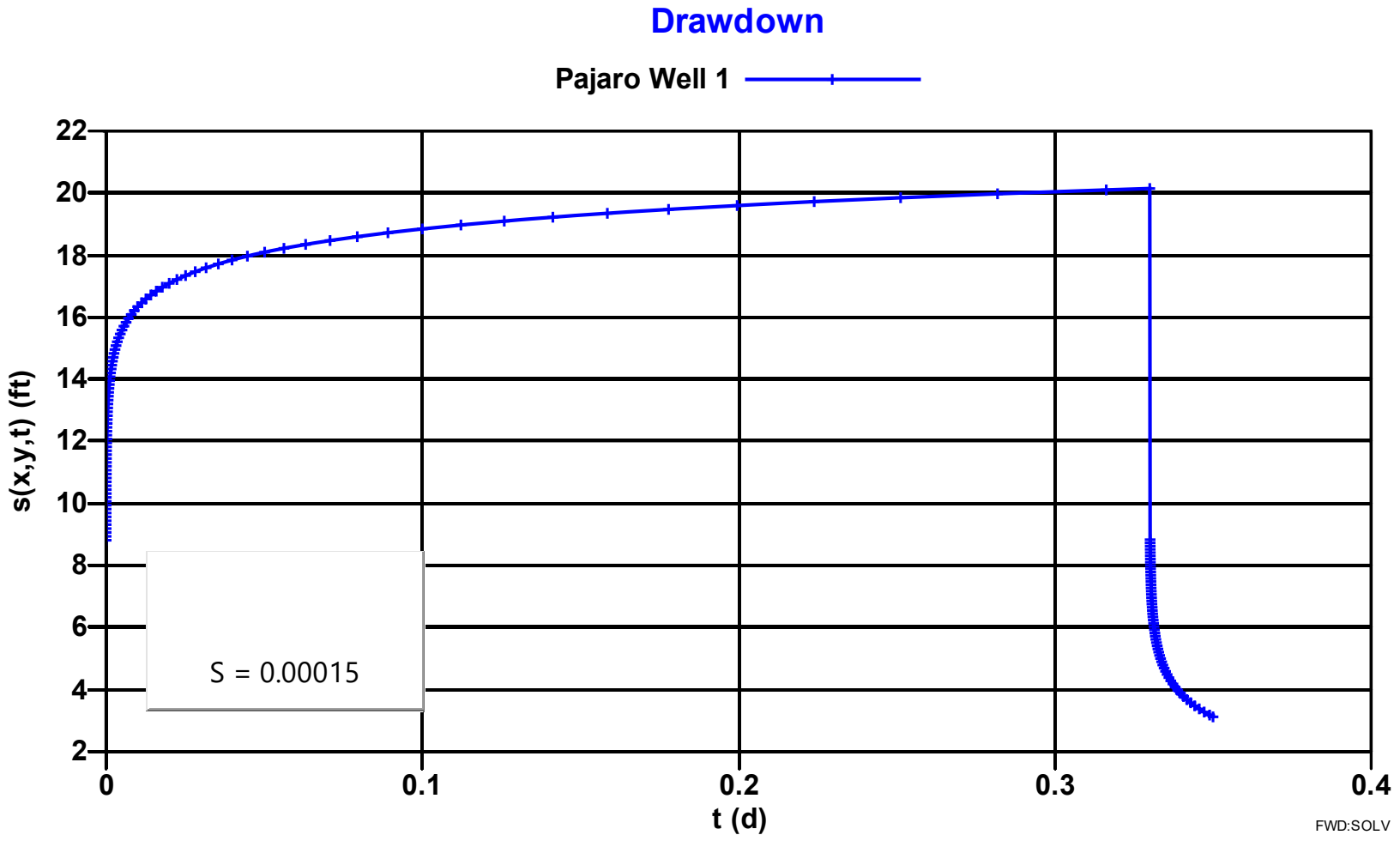
## SOLUTION

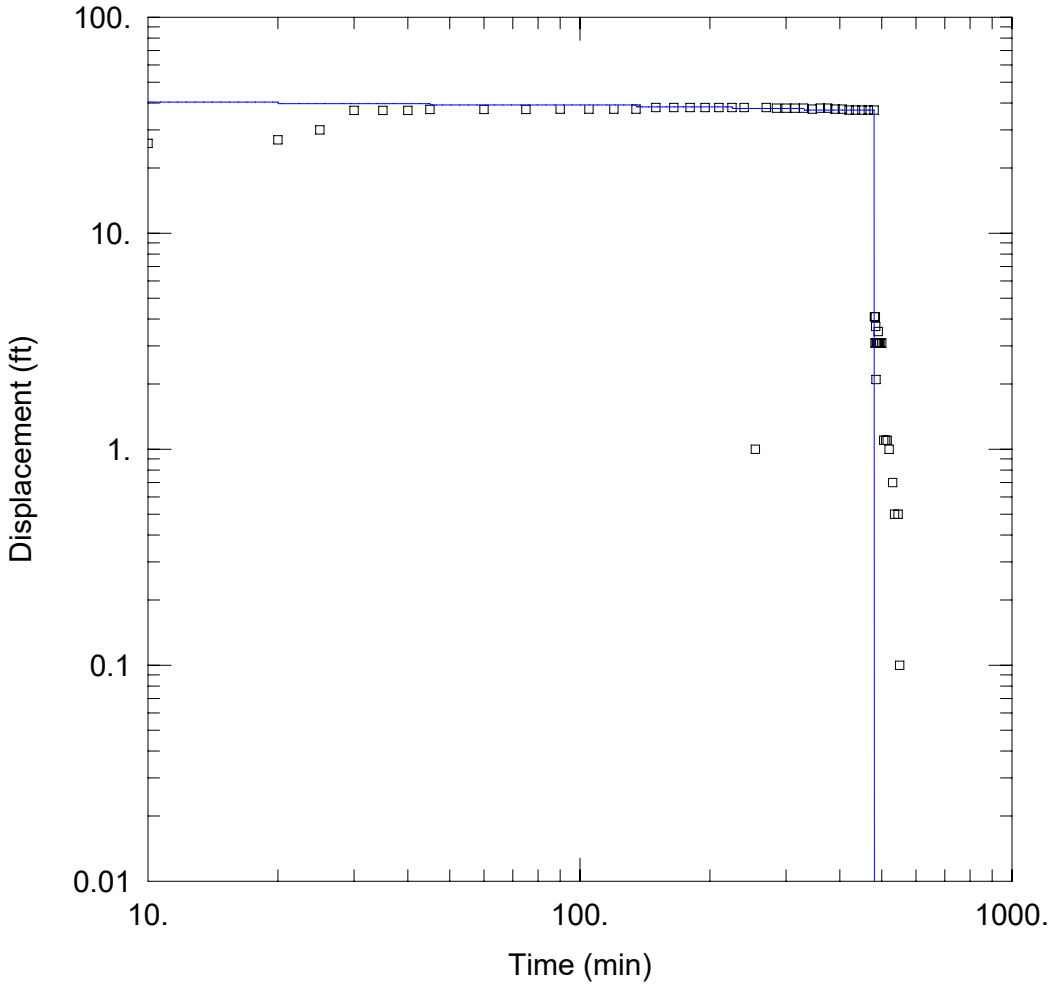
Aquifer Model: Leaky
Solution Method: Hantush-Jacob

T = 7809.7 $ft^2/day$
1/B = 0.01096 $ft^{-1}$
b = 600. ft

S = 0.00015
Kz/Kr = 0.5223


13402820
13397558
13392296
Y (ft)
2002525
2007787
2013049
X (ft)
Pajaro Well 1
Well 2 - MW
4
3
2
1
Drawdown (t=0.27 d)
Theis (1935) Model
T = 7810 ft²/d
S = 0.00015
monitoring point
pumping well
0
2631 ft
contour interval = 1 ft
FWD:SOLV


Drawdown
Pajaro Well 1
s(x,y,t) (ft)
22
20
18
16
14
12
10
8
6
4
2
0
0.1
0.2
0.3
0.4
t (d)
S = 0.00015
FWD:SOLV




## PUMPING IMPACT STUDY

Data Set: C:\...\Pajaro_Well_2 Pumping Test - no MW T= 12180.aqt
Date: 10/07/25 Time: 23:00:40

## PROJECT INFORMATION

Company: MNS Engineers
Client: CWC
Project: PSMS
Location: Pajaro, CA
Test Well: Pajaro Well 1
Test Date: 9/29/25

## WELL DATA

Pumping Wells

| Well Name | X (ft) | Y (ft) |
|---|---|---|
| Pajaro Well 2 | 0 | 3370 |

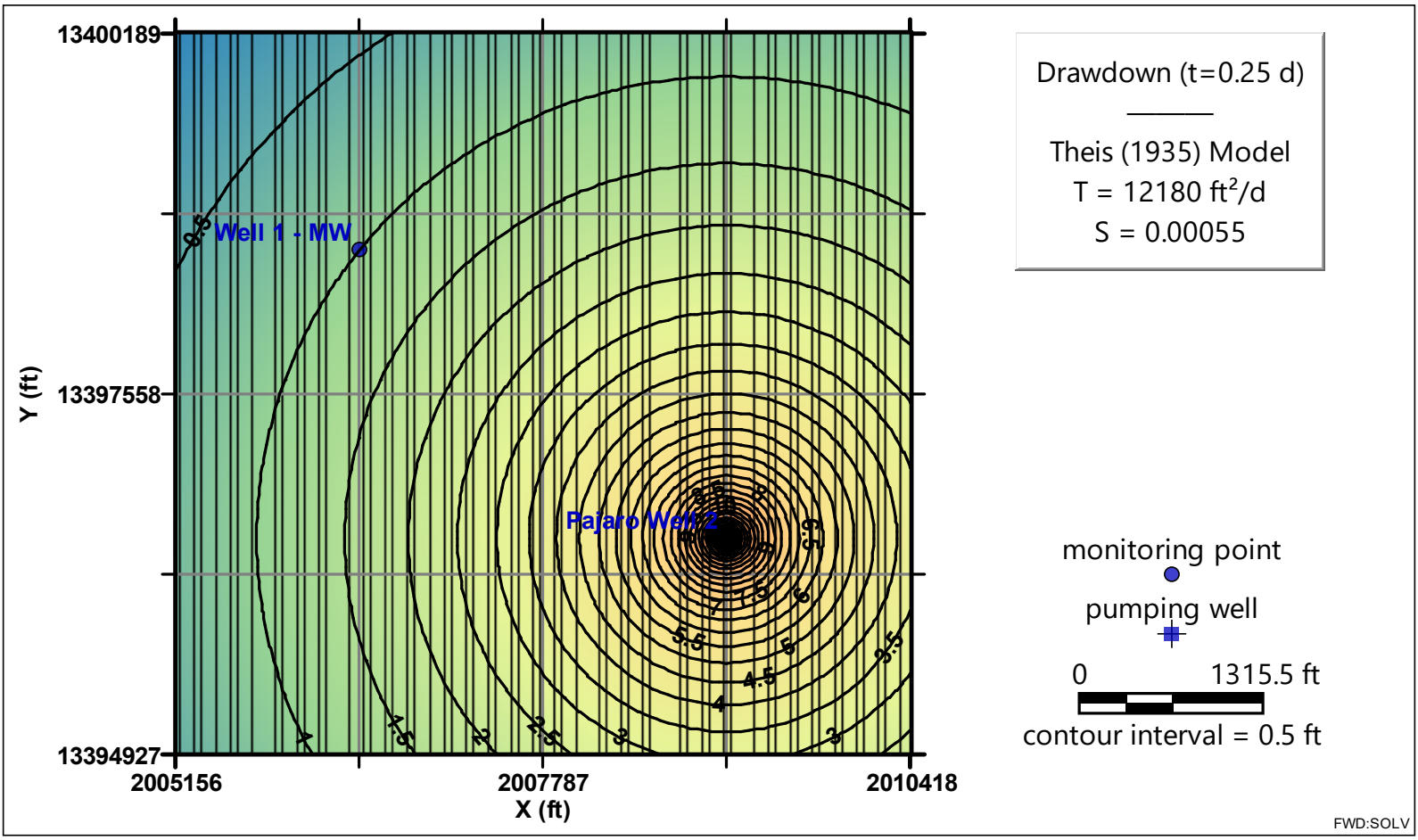
Observation Wells

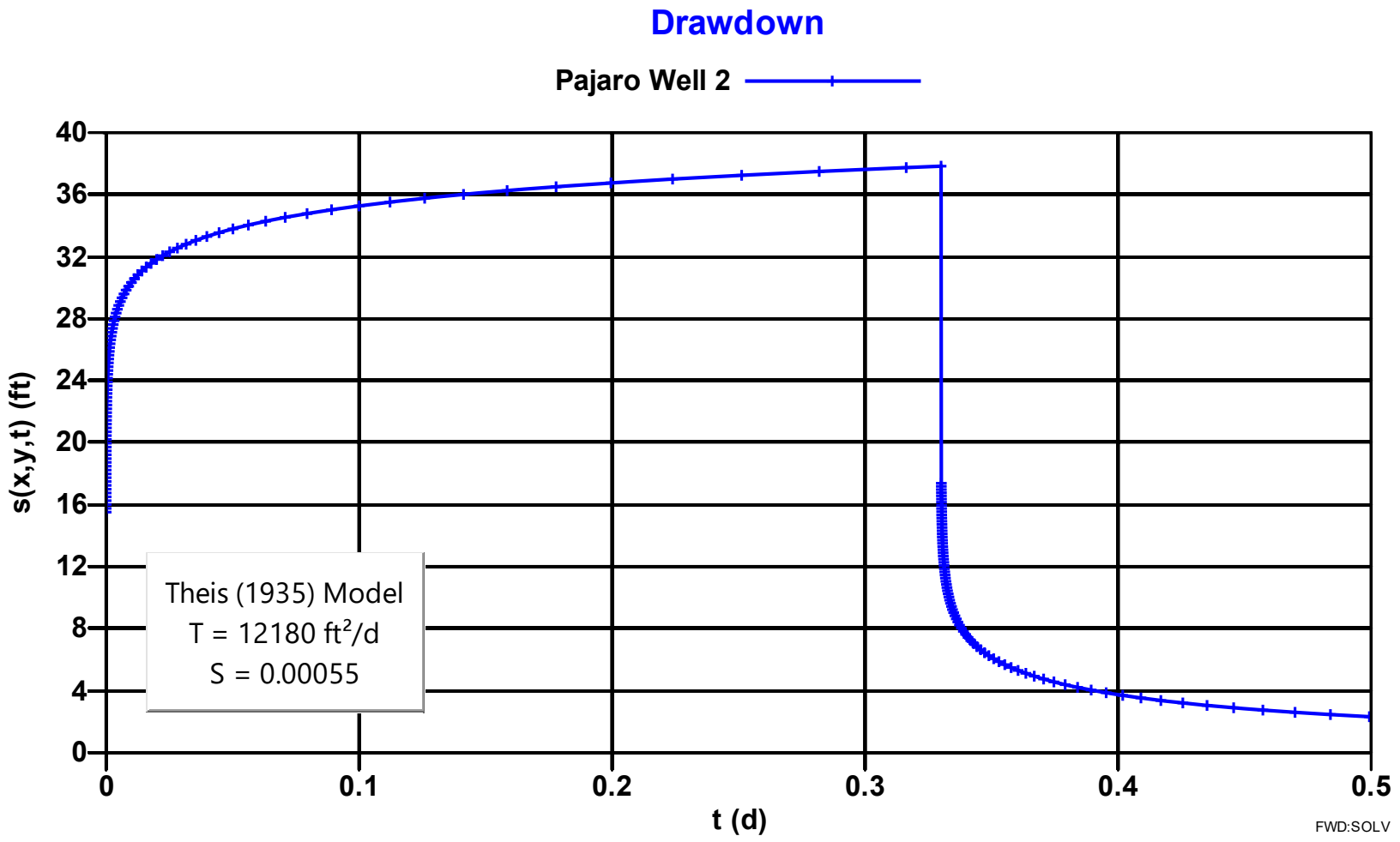
| Well Name | X (ft) | Y (ft) |
|---|---|---|
| ▫ Pajaro Well 2 | 0 | 3370 |

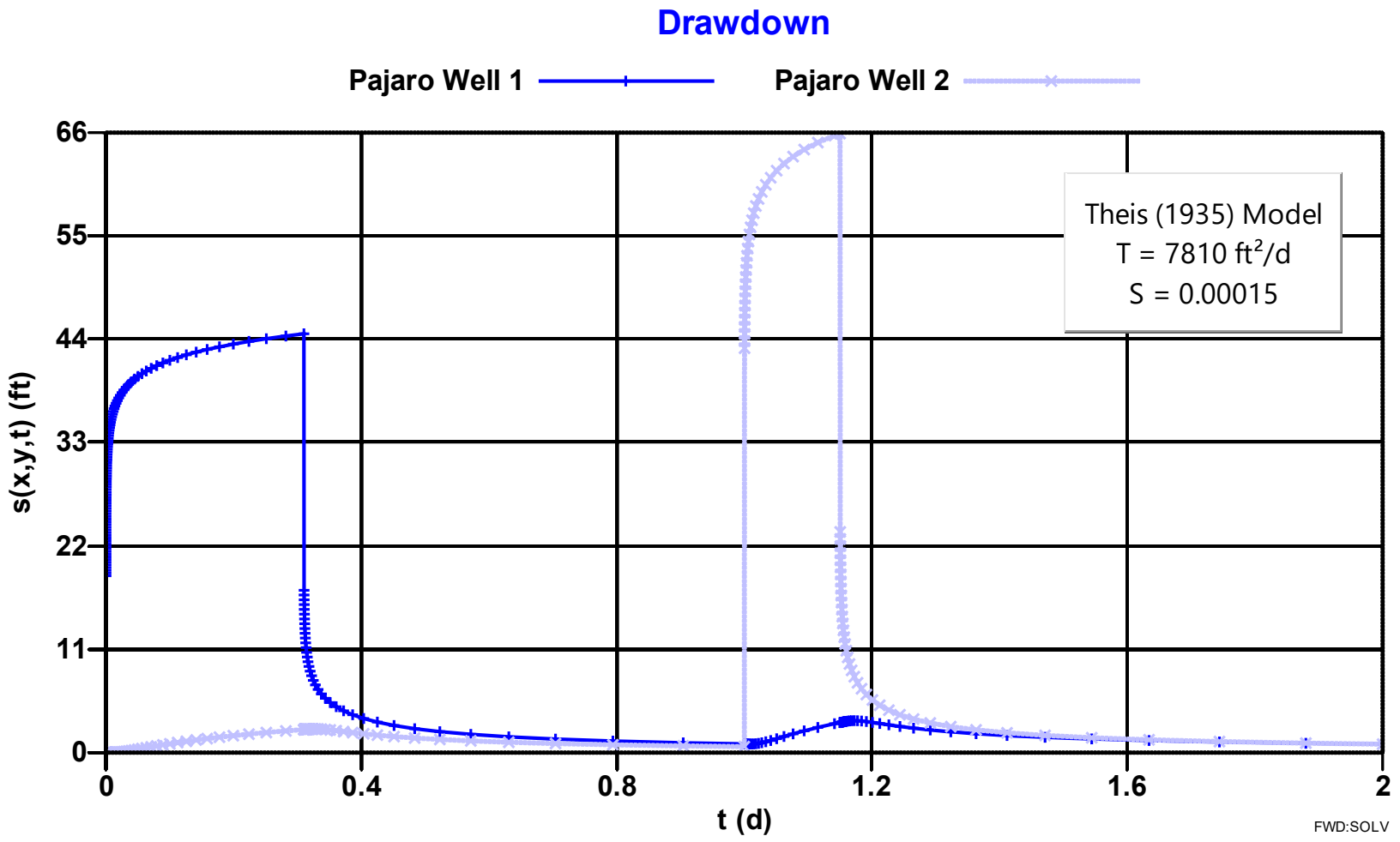
## SOLUTION

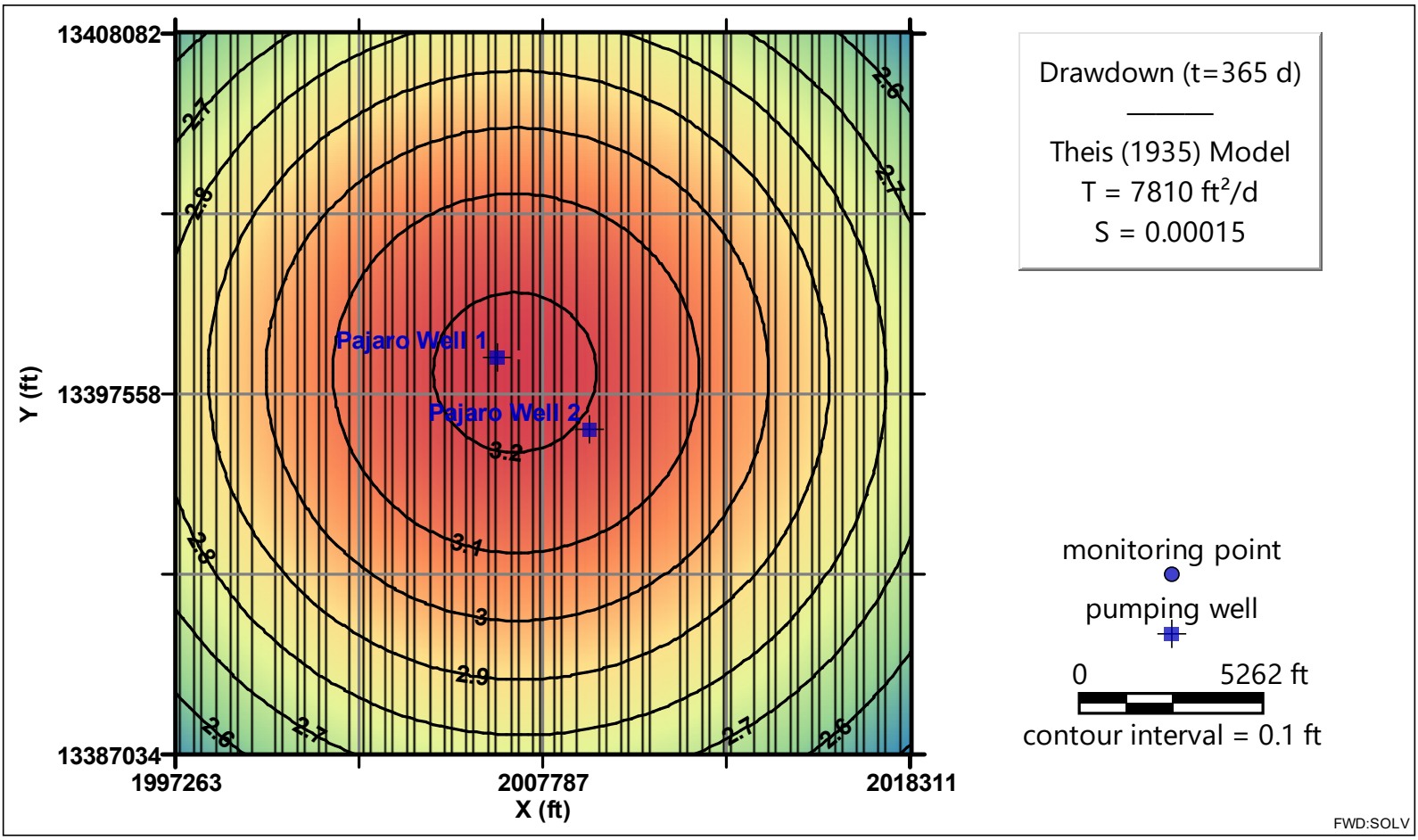
Aquifer Model: Leaky
Solution Method: Hantush-Jacob

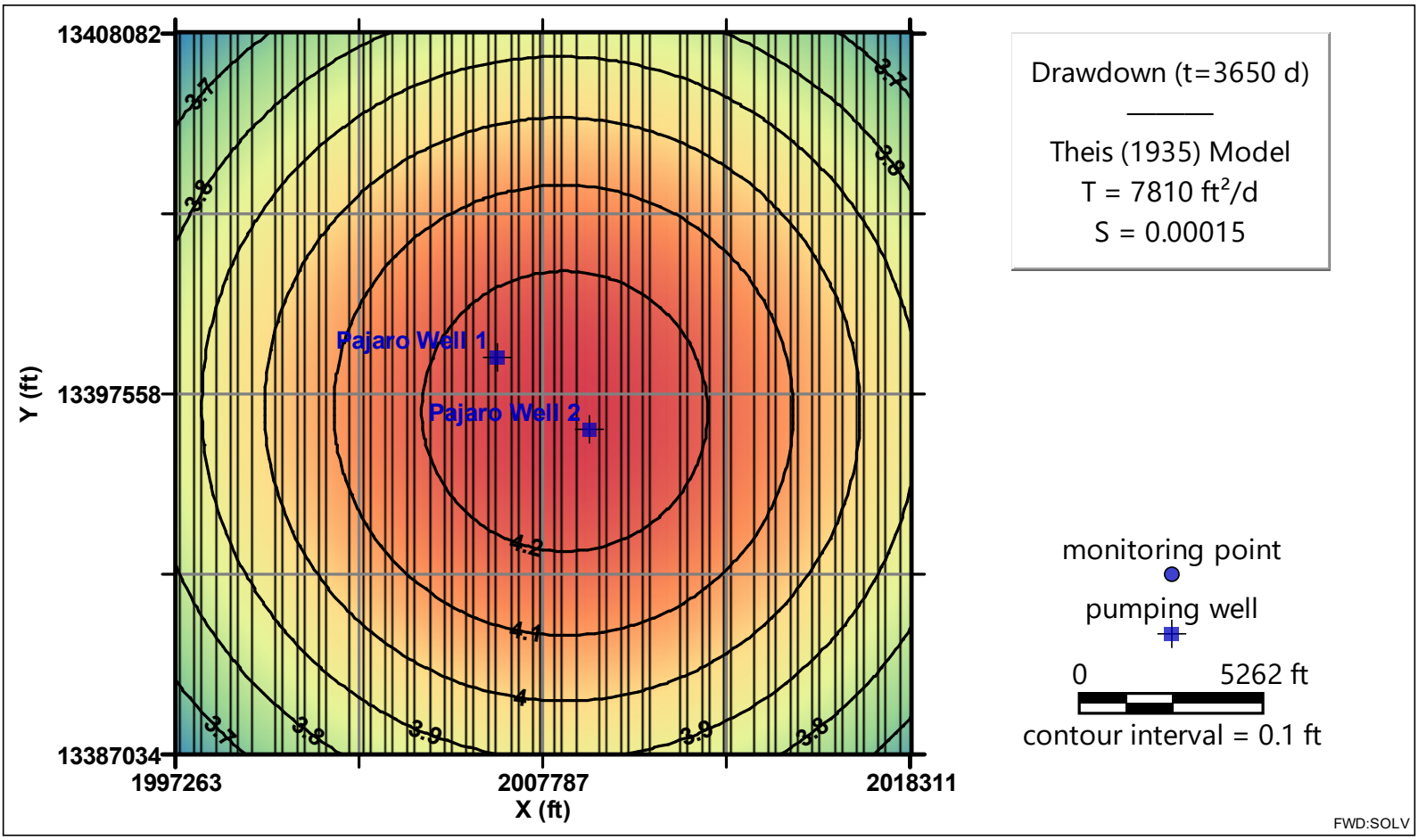
T = 1.218E+4 $ft^2$/day
S = 0.00055
r/B = 0.08091
Kz/Kr = 0.25
b = 600. ft

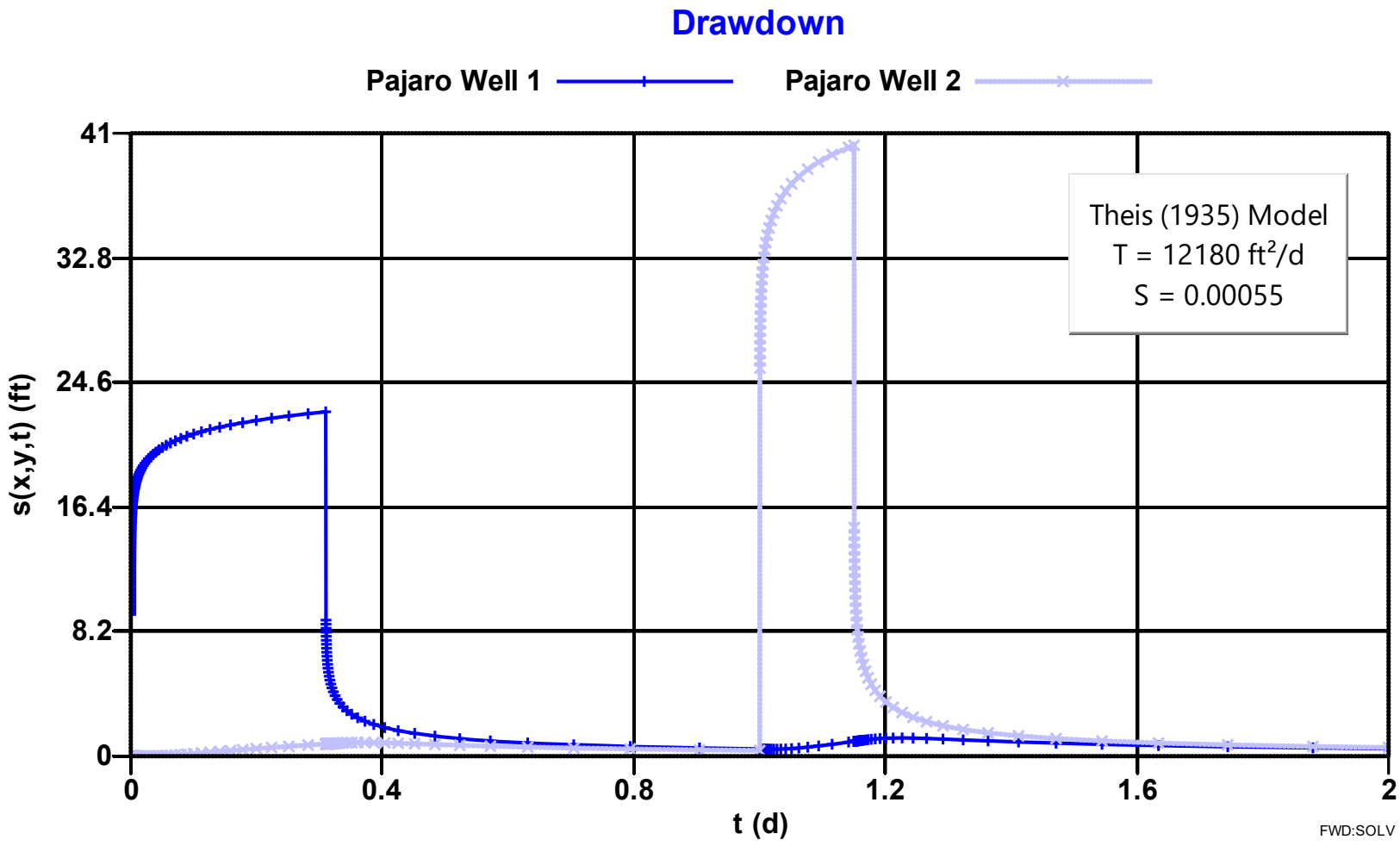

13400189
13397558
13394927
Y (ft)
2005156
2007787
2010418
X (ft)
Well 1 - MW
Pajaro Well 2
8.5
8
7.5
7
6.5
6
5.5
5
4.5
4
3.5
3
2.5
2
1.5
1
Drawdown (t=0.25 d)
Theis (1935) Model
T = 12180 ft²/d
S = 0.00055
monitoring point
pumping well
0
1315.5 ft
contour interval = 0.5 ft
FWD:SOLV

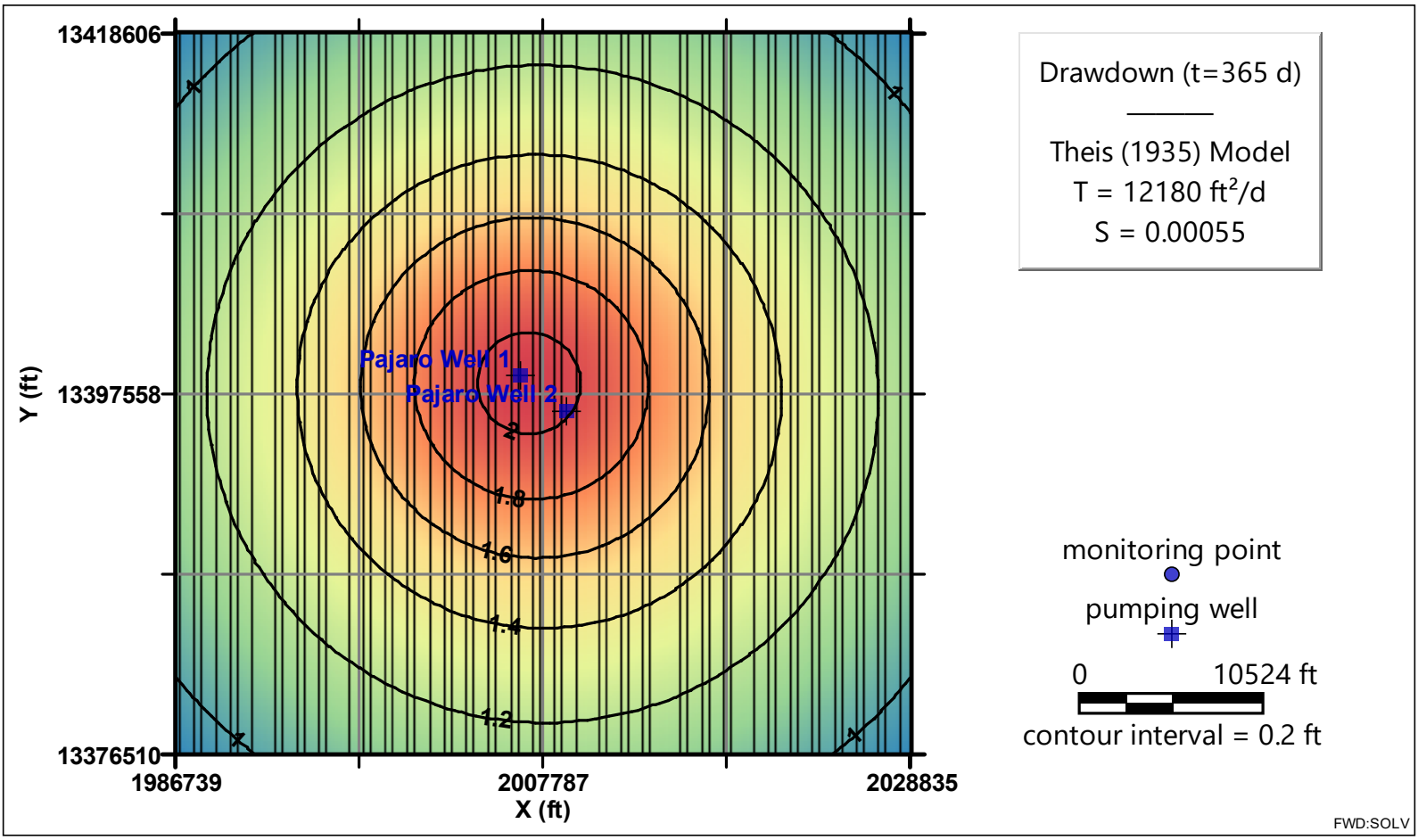

Drawdown
Pajaro Well 2
s(x,y,t) (ft)
t (d)
0
4
8
12
16
20
24
28
32
36
40
0
0.1
0.2
0.3
0.4
0.5
Theis (1935) Model
T = 12180 ft²/d
S = 0.00055
FWD:SOLV

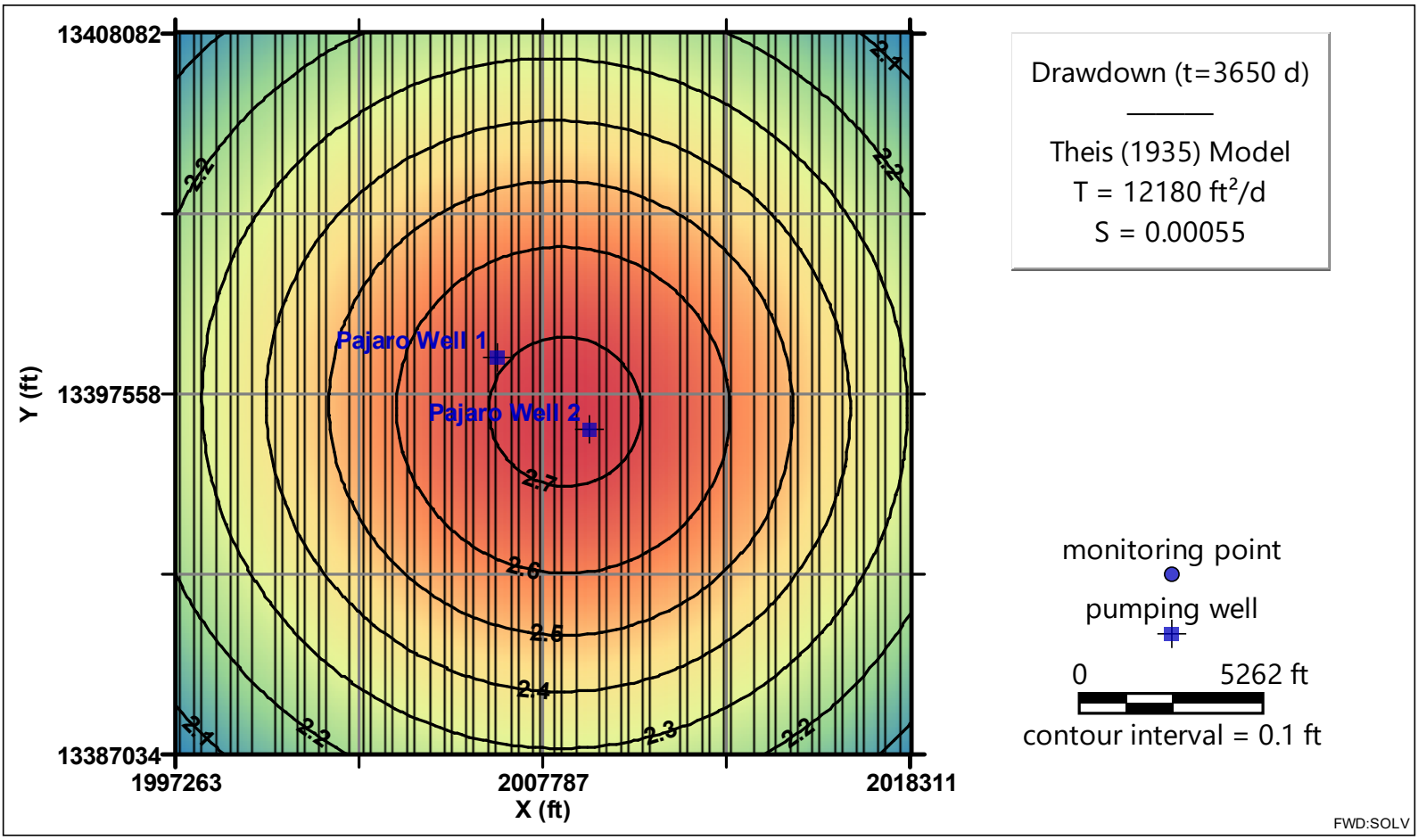

Drawdown
Pajaro Well 1
Pajaro Well 2
Theis (1935) Model
T = 7810 ft²/d
S = 0.00015
s(x,y,t) (ft)
66
55
44
33
22
11
0
0
0.4
0.8
1.2
1.6
2
t (d)
FWD:SOLV


13408082
13397558
13387034
Y (ft)
1997263
2007787
2018311
X (ft)
Pajaro Well 1
Pajaro Well 2
3.2
3.1
3
2.9
2.8
2.7
2.6
Drawdown (t=365 d)
Theis (1935) Model
T = 7810 ft²/d
S = 0.00015
monitoring point
pumping well
0
5262 ft
contour interval = 0.1 ft
FWD:SOLV


13408082
13397558
13387034
Y (ft)
1997263
2007787
2018311
X (ft)
Pajaro Well 1
Pajaro Well 2
4.2
4.1
4
3.9
3.8
3.7
Drawdown (t=3650 d)
Theis (1935) Model
T = 7810 ft²/d
S = 0.00015
monitoring point
pumping well
0
5262 ft
contour interval = 0.1 ft
FWD:SOLV


Drawdown
Pajaro Well 1
Pajaro Well 2
Theis (1935) Model
T = 12180 ft²/d
S = 0.00055
s(x,y,t) (ft)
41
32.8
24.6
16.4
8.2
0
0
0.4
0.8
1.2
1.6
2
t (d)
FWD:SOLV


13418606
13397558
13376510
Y (ft)
1986739
2007787
2028835
X (ft)
Pajaro Well 1
Pajaro Well 2
2
1.8
1.6
1.4
1.2
Drawdown (t=365 d)
Theis (1935) Model
T = 12180 ft²/d
S = 0.00055
monitoring point
pumping well
0
10524 ft
contour interval = 0.2 ft
FWD:SOLV


13408082
13397558
13387034
Y (ft)
1997263
2007787
2018311
X (ft)
Pajaro Well 1
Pajaro Well 2
2.7
2.6
2.5
2.4
2.3
2.2
2.1
Drawdown (t=3650 d)
Theis (1935) Model
T = 12180 ft²/d
S = 0.00055
monitoring point
pumping well
0
5262 ft
contour interval = 0.1 ft
FWD:SOLV